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**EXPLORING THE FIVE PHASES OF PHYSICAL THERAPIST PROFESSIONAL
DEVELOPMENT ADVANCED BY THE CLINICAL DOCTORATE DEGREE**

BY

SALOME V. BROOKS

**A Dissertation Submitted to the School of Graduate Studies
in Partial Fulfillment of the Requirement for the
Degree of Doctor of Education**

**Southern Connecticut State University
New Haven, Connecticut
May 2011**

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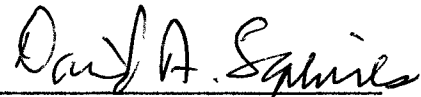


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BY
SALOME BROOKS

This doctoral dissertation was prepared under the direction of the candidate's dissertation Sponsor, Dr. David Squires, Department of Educational Leadership, and it has been approved by the members of the candidate's dissertation committee. It was submitted to the School of Graduate Studies and was accepted in partial fulfillment of the requirements for the degree of Doctor of Education.



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ABSTRACT

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Title: EXPLORING THE FIVE PHASES OF PHYSICAL THERAPIST
PROFESSIONAL DEVELOPMENT ADVANCED BY THE
CLINICAL DOCTORATE DEGREE

Dissertation Sponsor: Dr. David Squires

Institution: Southern Connecticut State University

Year: 2011

The American Physical Therapy Association (APTA) 2020 strategic plan mandated that the clinical doctor of physical therapy degree (DPT) will be the minimum practice standard. The APTA failed to articulate a functional practice description recognizing the varying levels of preparation. The current literature validates the existence of a stepwise pattern of professional development in similarly evolving disciplines. Applied nursing research by Benner (Benner model of professional development, 2001) identified five stages of professional development and characteristics that were useful in the discipline's advancement. The purpose of the study was to apply the structure of the Benner Model to physical therapy outpatient practice. A mixed methods design was used where the sample populations, expert and new DPT, were stratified and purposeful according to work setting, location, state licensure, and professional performance. The study found that a five stage professional development path with unique discipline characteristics existed for the physical therapy discipline.

To my Champions:
Heavenly Father, who chooses to speak to me
Mother, who knew the scope of my brain power
Sister, who prayed me into existence
Margaret, who gave her gift to my future

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CHAPTER 1: INTRODUCTION

Background of Study

The practice of physical therapy, as a health-care discipline, has matured considerably as a profession over the last 25 years. The profession originally developed from the need for provision of care for the survivors of the cannon and gun warfare experienced during World War I. The complex injuries survivors sustained required the “restoration” of any remaining physical function (American Physical Therapy Association [APTA], 2003b). Certainly, injuries, such as amputations and parapareses resulting from spinal cord damage, afforded a technical level of practice. This technical practice required the practitioner to function within a finite set of treatment guidelines utilizing a specific skill set according to the diagnosis established (APTA, 2003b).

Technical practice within the physical therapy discipline continued into the late 1970s. In the early 1980s, the American Physical Therapy Association (APTA) introduced the clinical specialist certification to the profession. In recognition of individual professional development efforts, the APTA wanted to foster critical thinking based on current treatment and scientific evidence. Technical practice was no longer considered “best practice” (Jensen & Royeen, p. 118). Using the current treatment and scientific evidence to meet the individual need of the patient became the new premise to physical therapy intervention.

The physical therapy profession has been influenced significantly by fiscal constraints applied to reimbursement for services initiated by the federal government through the restriction of Medicare payments. Patients were identified and services were subsequently paid for according to a specific designation of disease category, the diagnostic related group system of prepayment (Ruggie, 1992, p.921). In retaliation, the APTA devised a system of communication with insurance entities that consisted of a sophisticated coding system in which services rendered were justified in a systematic manner, and the orientation of interventions were based on current treatment and scientific evidence. In conjunction with this significant evolution, the way in which the practice of physical therapy was conducted and the way in which physical therapy students were educated throughout the entire academic process had to match the pace set forth in a steady and logical manner. Hence, the notion of physical therapy becoming a doctoring profession evolved as professional practices advanced, the practice environment progressed, and patient needs changed.

The professional development of the average clinician was also influenced by the ongoing metamorphosis within the physical therapy practice environment. The APTA had to provide a standard of recognition for the inquiring clinician and for the professional who was seeking excellence in practice. Many questions then arise as to the conditions under which the practicing clinician functions with such comprehensive and rising levels of change in fiscal, scientific evidence and patient needs dimensions. How do we know that the individual clinician is adequately self-directed enough to remain current within the profession, and what are the signs of self-directedness? At what professional level is a particular clinician functioning? How and under what conditions does a clinician aspire to excellence? The

answers may be drawn in part by identifying the levels of professional development that are unique to the physical therapy profession.

History

The physical therapy profession was initiated as an original profession that rose directly from several catastrophic global events. These events adversely impacted the public health of the United States population. Plack and Wong (2002) explain that between 1894 and 1916, the multiple poliomyelitis (polio) epidemic paralyzed and deconditioned a large proportion of the population. Physical therapy was born as a new profession, because it offered physical interventions far different than those existing in conventional medicine, such as the caregiving characteristic of the nursing discipline.

From 1917 to 1919, the consequences of the injuries suffered in World War I, due to the extensive use of revolver type weapons and cannons, resulted in thousands of limb amputations and spinal cord injuries. Soldiers and civilians were able to survive because of the continuation of care and practical hygiene techniques introduced by Florence Nightingale (Weeks & Berman, 1985). "Rehabilitation to restore them [the war wounded] to optimal function" (Plack & Wong, 2002, p. 49) became the focus of the national war effort that continued into postwar peacetime. This focus became a concern because of its impact on the economic growth of the country and because of the lack of available able-bodied workers to build the financial health of the nation.

Theodore Roosevelt was one of the first in government to advocate for industrial health insurance in recognition of a general public health concern for the improvement of civilian life (Weeks & Berman, 1985). His strategy was that the formulation of a healthy workforce would produce efficient and effective industry that would ultimately improve the national economy. Physical fitness programs were integrated in the work life of the individual industrial employee. In addition, the dependents of workers were recognized as being a vital component to the healthy worker who was responsible for the generation of industry. Legislation was passed to formally provide treatment for “crippled” children (Weeks & Berman, 1985, xviii) advocating rehabilitation of the child, in order to allow them to develop them into productive adults. The advent of these global and national events solidified the physical therapy profession as a necessary and viable health-care entity.

History repeated itself with the outbreak of World War II, and the demand for physical therapists surged. The effects of polio on the juvenile population continued to be extensive, producing continued attention to the care for children at the public health level. On August 14, 1935, the Social Security Act was passed not only meeting the needs of the aged, but also providing expansive coverage to children with disabilities, sparked by the concern to care for children who contracted polio (Weeks & Berman, 1985). In 1939, the Federal Security Agency was created to absorb the Social Security Board, the U.S. Public Health Service, the Civilian Conservation Corps, the National Youth Administration, and the U.S. Office of Education. The Michigan Blue Cross Blue Shield Insurance Plan was founded to provide health insurance coverage to the Ford Motor Company and General Motors employees. Following suit, in 1942, the Kaiser-Permanente Medical Care Program, which

still exists today, was initiated in California. Furthermore, the Health Insurance Plan was established to provide medical coverage for New York City municipal workers and was subsidized by the city government under Mayor Fiorello La Guardia. The availability of reimbursement for services, other than private payment, facilitated the further expansion of physical therapy services to private homes, skilled nursing facilities, specialty hospitals, and school systems (Weeks & Berman, 1985).

Global events continued to impact the health of American society. The Korean War and Vietnam Conflict continued to place a demand on the physical therapy profession. The types of injuries, resulting from the nature of the warfare waged during these encounters expanded the range of practice for the physical therapy clinician. More complex conditions, related to lower extremity amputations and traumatic brain injuries, greatly impacted the definition of restoration of function for the profession. The Salk vaccine, discovered in 1955, decreased the incidence of polio, but highlighted the long-term and more chronic phase of the disease process. Advances in orthopedics, biomechanics, and heart surgery produced a wider arena of practice for physical therapists, requiring a greater background of education in response to the then current scientific changes. The general population of the United States started to benefit from technological medical advancements, the availability of work for the U.S. people connected health insurance and the possibility of aging with social support. In 1965, the Medicare and Medicaid Social Security Amendments were enacted. The number of elderly living in the United States increased, causing the skills of the physical therapist to be required to meet the needs of this population segment, and an area of specialization was developed (Weeks & Berman, 1985).

In conjunction with the evolution of physical therapy practice away from the technical level, federal budgetary constraints and service reimbursement entities, such as public and private insurance, began to demand justifications for delivered treatments. Because justification for treatments, especially outside of direct care, was never part of the traditional practice tasks prior to the 1980s and no common reporting tool was in place, the physical therapy service providers felt confined. This confinement of clinical practice was viewed as a directive of the Medicare System by the federal government. The regulation system as we know it today is directly referred to as the diagnostic related group perspective payment system of reimbursement (Ruggie, 1992).

In 1983, legislation was passed to change the method of government reimbursement of Medicare and Medicaid from a “retrospective cost-based” system to a “prospective payment [system] based on diagnostic related groups” (Ruggie, 1992, p. 921). Setting a “fixed price for treating categories of illness” (Ruggie, 1992, p. 921), this prepayment method was supposed to reasonably contain health-care costs. The outcome was a decrease in the degree and type of health care available to the general public regardless of ability to pay. This stepwise progression of government control of the health-care system introduced to physical therapy practice an external constraint never experienced previously.

The diagnostic related group system of reimbursement was introduced for use primarily in hospitals within the United States. This system ushered in the scrutiny of the health-care provider by outside political and fiscal entities, such as health policy makers and insurance companies or third party payers (Ruggie, 1992). The questions raised by this

scrutiny addressed the many aspects of health-care delivery, such as the length of the treatment session. The greatest emphasis of the scrutiny was placed on the efficacy of treatment itself. Clinicians were now responsible for justifying the reasons for administering their services to the third party payer. As a result, the profession and its clinicians started to analyze their available treatment strategies, sought scientific evidence that justified their treatment choices, and ensured that the chosen interventions were both effective and curative. As this evidence was garnered, the expected outcome of the profession and its practicing clinicians provided rational discipline-specific reasons for unique patient treatment (APTA, 2003b).

Productivity requirements imposed at the expense of health-care quality were a major result of this system. The political atmosphere of “private enterprise and market place rate setting” (Ruggie, 1991, p. 923) was now an integral part of the health-care system and has remained in place despite efforts to rename the same article (Ruggie, 1992).

The next variation of cost constraint for Medicare and Medicaid recipients was the Balanced Budget Act of 1997. This act assigned an “arbitrary \$1500 capitation” (Ruggie, 1992, p. 923) on reimbursement funds issued by the federal government for rehabilitation services per year per patient. A “fee schedule” (Ruggie, 1992, p. 923); rather than reimbursement at a reasonable price, based upon the actual cost of administering services; was introduced to the physical therapy scope of practice. The consequences of the cost containment systems imposed upon the health-care environment included reducing staff, restructuring organizations, reducing management and immediate supervisors, and reducing

the time spent with each patient. Waiting lists replaced timely access to care. Discipline-specific managers and department supervisors were replaced by team leaders from any available profession. The reduction of treatment time introduced a new level of constraint for the physical therapist that had never been experienced previously. Time constraints forced the clinician to make critical decisions to work faster and at a more efficient pace. The cap on available funds also imposed a decrease in the duration of the total length of the treatment process. The reason for treatment and physical therapy diagnosis had to be determined in order for an effective intervention administered to produce a positive treatment outcome.

A positive treatment outcome unique to the individual patient within the current health-care cost containment environment has changed the physical therapy profession. The physical therapist must fully develop critical thinking skills and function at the “self governing” (APTA, 2003a, p. 1) level of practice in order to survive as a practitioner. In 1999, Lopopolo conducted a study in hospitals in the midst of reorganization due to cost containment. Lopopolo found that physical therapists had to function on “a higher level [of] evaluative and planning skills as well as communication and collaborative skills” (p. 183). In addition, physical therapists “needed to be prepared to act as consultants and educators for patients when necessary care cannot be provided within the constraints of the system” (Lopopolo, 1999, p. 183). Lopopolo’s study confirmed “expertise, autonomy, commitment and responsibility” (p. 172) are the levels of practice currently expected by the field.

As a result of the fiscal constraints imposed by the diagnostic related group system, clinicians of all disciplines, including physical therapy, were required to supply a justification

for services rendered to guarantee reimbursement. In an attempt to retaliate against these new constraints, the APTA developed a mechanism of written communication, and therein, a common language regarding reimbursement with third party payers, such as Medicare or private insurance companies (Barton, 2000). The sections of the APTA collaborated to develop this mechanism of communication with third party payers, such as Medicare or insurance companies. The physical therapy sections, loosely divided by the various practice settings, include orthopedics, neurology, geriatrics, electrotherapy, and cardiopulmonary. The “Guide to Physical Therapy Practice” (referred to as “The Guide”) (APTA, 2003b) was initially developed by recognized authorities in physical therapy who initiated an organized explanation for physical therapy intervention to meet the needs of the third party payers and facilitate reimbursement according to discipline-specific diagnostic categories.

“The Guide” presents a concrete and discipline-specific coding method, which organized treatment strategies into a logical sequence that promoted and assessed proper recovery according to diagnosis. Physical therapy practice is described as having three entities: “a) diagnosis and management of movement dysfunction b) restor[ation], [maintenance] and promot[i]on optimal physical function and well being [and] c) [the] prevent[i]on of] the onset and progression of impairment, function and disability” (APTA, 2003b, p. 13). “The Guide” outlines the tests and measures used in physical therapy practice to describe and interpret the results of examination, evaluation, diagnosis, prognosis, and intervention.

“The Guide to Physical Therapist Practice” is a “work in progress” (P. Levangie, personal communication, August 11, 2005) as is the profession. “The Guide” is in its second edition and has undergone two revisions. As the profession examines and reexamines its scope of practice, the achievement of “self government” or “autonomy” (APTA, 2003b, p. 1) requires an appropriate description. This description is a baseline for the scope of services as the complexity of care based on the critical decisions of the individual clinician is made. This baseline of practice needs to be determined in scientific and research terms. The evidence-based practice scope of care has eliminated the possibility of a technical framework of practice for the profession.

“The Guide” was and is still being used in its revised and updated form to facilitate justified reimbursement. These fiscal events launched the profession toward the concept and subsequent employment of the “physical therapy diagnosis” (APTA, 2003b, p. 27). Thus, “The Guide” has become a useful and necessary tool in modern-day physical therapy practice. Clinicians function with “The Guide” beyond fiscal organization. It is a tool to assist in clinical decision-making. The leadership skills demonstrated by the clinician, who follows “The Guide’s” basic premise in order to complete the tasks of patient management, are discussed in the context of patient care. Leadership and independent thinking were previously reserved for the medical profession but are exercised appropriately within the realm of physical therapy practice as a component of autonomous practice. Because of the practice framework provided by “The Guide,” the physical therapy diagnosis has been established and made distinctive. By definition, the physical therapy diagnosis now differs from the medical diagnosis, which is assigned by the referring physician, based upon the

diagnostic regimen and techniques employed by the medical doctor. The power of the practice framework provided by “The Guide,” viewed as a substantive publication, is additionally significant to the profession. The Federation of State Boards of Physical Therapy has adopted “The Guide” language to define the “Standards of Competence” and includes the practice framework and material from “The Guide” in state board examination content (2002).

Applying comprehensive physical examination data to the results of critical inquiry leads to identifying a specific pathology and/or disease process. The outcome of evidence-based practice, critical thinking, and fiscal accountability is the ability to determine a treatment diagnosis via a process referred to as differential diagnosis (APTA, 2003b).

The physical therapy diagnosis requires the assessment of the involved body systems and enables the physical therapist to treat within the domain of physical therapy practice. The rationale for physical therapy intervention depends upon the results of the examination and assessment conducted by the physical therapy clinician (APTA, 2003b). Because the physical therapy profession, through the completion of “The Guide,” has achieved the outcome of the physical therapy diagnosis, the medical diagnosis, assigned by the referring physician, is no longer the sole descriptor for the patient’s condition, which eventually drives the reimbursement process.

In conjunction with the evolution of the “physical therapy diagnosis” (APTA, 2003b, p. 27), the physical therapy profession brought to the discussion table the notion of

autonomous practice. The APTA (2003a) has defined autonomous practice within the CEO report as “the freedom to make independent judgments in the provision of physical therapist services and to be responsible for their outcomes” (p. 27). Autonomy and the desire to be “self governing” (APTA, 2003a) was first discussed by physical therapists in 1947, during the drafting of the Maryland Practice Act (Massey, 2002). At that time industry subsidized health insurances were in their infancy, but the physical therapy profession realized that payment resources and the availability of the multiple and diverse practice arenas outside of the traditional hospital setting existed. The AMA established the “Essentials for an Acceptable School for Physical Therapy Technicians” (Massey, 2002, p. 1122), but the preparation and practice of the physical therapy remained at the technical level. Recognized by physical therapy predecessors was the eventual possibility for autonomous practice, and they “paved the early road...affirm[ing] the basic rights to govern our own affairs... [and] define our scope of practice” (Massey, 2002, p. 1122).

Autonomous practice affords, for the physical therapist, the opportunity to practice independently, to establish the treatment diagnosis, to implement treatment approaches that are characteristic of the individual patient problem, and to reevaluate or alter treatments should goals not be attained. The evolution of physical therapy has required a finessing of patient care skills that is considerably different than the technical practice previously performed.

The Physical Therapy Practice Act states that a physician referral is required for patients to receive the full services of a physical therapist unless legislation has been

approved within the particular state to allow autonomous practice (APTA, 1997). Direct access is the legislative recognition and associated actions of autonomous practice (Massey, 2002). By definition, direct access allows the patient to seek and receive physical therapy services without physician referral. In turn, the physical therapist is allowed to treat the patient for thirty days without consulting a physician. Direct access utilizes the concepts of the physical therapy diagnosis, clinical decision-making based on scientific evidence, timely and effective intervention, and discipline-specific accountability to reimbursement sources.

Direct access has granted an opportunity for the physical therapist to practice at the autonomous level. The major thrust behind the direct access bill is the provision of Medicare payments directly for services rendered and idea that the other insurers (third party payers) would follow suit. The exact position of the APTA regarding direct access is as follows: “The physician referral is unnecessary and limits access to timely and medically necessary physical therapist services. Such access for beneficiaries is critical as Congress looks to reform the Medicare program” (Massey, 2002, p. 1121). The important aspect regarding direct access, reaching beyond access for Medicare recipients, is the benefit to all patients. Practice autonomy, although closely related to direct access was not discussed and sought as a result of this legislative argument.

The fundamental implementation of clinical decision-making and the utilization of the differential diagnosis process made it possible for the profession to survive another phase of reimbursement constraints. The Balanced Budget Act of 1997 placed a capitation on the amount of funds that could be expended by medical professionals per medical event for the

individual patient (APTA, 1997). Because patients are billed for units of time spent in a treatment session, it was in the best interest of the physical therapist to conduct examinations efficiently, to effectively diagnose, and to intervene proficiently. The lessons learned from the influence of the diagnostic related group perspective payment system, the streamlining of clinical decision-making through differential diagnosis, and the utilization of “The Guide” assisted clinicians in their attempts to function under the constraints of the Balanced Budget Act. In addition, the lobbying arm of the APTA presented solid arguments for the overturn of the intensity of these budgetary constraints, first imposed by the federal government through this act, and later considered to varying degrees the long-term consequences of financial constraints on the quality of health care. These consequences included, but would not be limited to, denial of paid services, delay of access to care, lack of services to particular regions of the nation or segments of the population, and the ultimate rationing of health care.

A positive benefit that was crucial to the emergence of the profession was the introduction of “The Guide” into the practice arena. Historical and political events forced clinicians to account for their practice decisions on a discipline-specific and autonomous level. At present, the technical level of practice is no longer appropriate for the professional environment. An algorithmic method applied toward the decision to provide services and select an effective treatment approach is the norm of practice for the physical therapy clinician. The clinical decisions based upon algorithmic thinking requires the clinician to “identify problems and goals, generate hypotheses...define strategy and tactics... [where] all assumptions underlying treatment must be stated and later tested” (Rothstein & Echtertnach, 1986, p. 1393). The therapist examines “[one’s] own actions when the goals have not been

achieved” (Rothstein & Echternach, 1986, p. 1393). Prescriptive decisions addressing the unique characteristics of each patient case were an entity previously reserved for the medical profession (Rothstein, Echternach, & Riddle, 2003). The bar for the standard of practice has been raised far beyond the technical framework. The preparation for practice and the professional development to maintain the work standard for the practicing clinician is required to keep pace with the scientific evidence produced and technological advances and to integrate the review of the literature into everyday practice conditions. At this juncture, the APTA and invested educators observed that the physical therapy clinician of the 1970s, in other words the technical practitioner, differed from the autonomous practitioner, who arose out of the need to function in a changed environment (Plack & Wong, 2002).

As accountability, time constraints, financial justification, differential diagnosis practices, and autonomous practice enveloped the general practice of the average clinician, the educational preparation for the profession had no other option but to undergo a transformation. Physical therapy educators quickly recognized that the physical therapy academic curriculum had to match the rigor of the newly developed practice conditions. Attempts to standardize the physical therapy education process were a concern when the profession first evolved.

In order to sustain its existence, a profession has to establish training and practice standards to facilitate recognition and utilization of services by other disciplines and the infirm. In 1917, the United States Army in conjunction with the Division of Special Hospitals and Physical Reconstruction established a formal training program (Woods, 2001) for

“Reconstruction Aides” (Plack & Wong, 2002, p. 49), or what are known today as physical therapists. Similar training programs were established in the civilian arena to meet the needs of the “crippled” children (Weeks & Berman, 1985, xviii) afflicted by “infantile paralysis” (Plack & Wong, 2002, p. 49). Graduates of civilian programs were entitled “Physical Therapy Technicians or Aides” (Plack & Wong, 2002, p. 49). By 1918, 13 programs had been established in this civilian and military collaborative effort. Certificates in physical therapy were awarded to their graduates. In 1928, the APTA formalized the minimum course requirements for institutions who granted certificates in physical therapy. These students received six months of training with a technical level of emphasis on “anatomy, physiology, massage, hydrotherapy, electrotherapy, and exercise” (Plack & Wong, 2002, p. 49). The comprehensive study of the basic sciences at the theoretical level was not the format of the educational process at this time.

As the physical therapy profession evolved in the late 1920s, society began to recognize the contributions of women, and scientific advances emerged, such as the discovery of penicillin. In 1928, the existing American Physiotherapy Association, formerly the American Women’s Physiotherapy Association, established the “Minimum Standards for an Acceptable School of Physical Therapy Technicians” (Plack & Wong, 2002, p. 49). These standards stated that acceptance into a physical therapy school required prerequisite completion of a nursing or physical education degree credential from an accredited program. By the 1930s, 12 programs functioned nationally. Of concern were the differing time frames of each program’s length that varied from four to 18 months, despite the established nine-month standard. In addition, the practice setting of physical therapy diversified from the

customary hospital setting to such areas as the outpatient clinic. This expansion of the practice arena, the option for eighteen months of study, and the potential functional task of the physical therapist suggested that the technical level of training was no longer adequate. In response to these changes, New York University initiated the baccalaureate degree program. This program offered a course of joint study in the liberal arts and health sciences, incorporating the certificate credentialing requirements in 1927 (Murphy, 1995).

Thirty-three years later, in 1960, the baccalaureate degree became the required qualification to be eligible for practice as mandated by the APTA. The expansion in the complexity of the educational process for the physical therapist included the knowledge of the underlying treatment principle beyond the technical level of thinking. Problem-solving and analytical thinking involved in physical therapy intervention choices demanded that the content of program curricula include the expanded areas of “neuroanatomy, neurophysiology, research, education, administration, and public health” (Plack & Wong, 2002, p. 50).

The next major progression for the profession was the introduction of the associate degree in physical therapy practice, which led to a paraprofessional qualification: the physical therapy assistant. This educational change marked the advancement of the physical therapist’s practice beyond the technical level and provided a qualified technician for the field (Plack & Wong, 2002).

The new critical thinking role of the physical therapist required clinicians to assume more advanced tasks, wherein basic skills could be given to physical therapy assistants to

perform. In 1978, the now well-established APTA recognized the experienced, critically-thinking clinician and introduced the clinical specialist certification. The introduction of the specialist certification was a formal recognition of the professional development efforts for the practicing clinician. The APTA (2009) defines professional development as follows:

Professional development begins with professional education and continues throughout one's professional life. Professional development is the foundation for where the physical therapist assumes an attitude of inquiry and engages in an ongoing process of assessment and evaluation of knowledge, skills, and abilities. The acquisition of new knowledge, skills and behaviors is a planned activity, based on assessment and re-assessment of self and the environment in which one practices.

(para. 2)

The emphasis of practice excellence now has an educational growth aspect associated within the context of how one improves as a clinician and expands with the demands of the profession and the practice environment. Educational growth includes how the different levels of professional development are staged or described around expansion of knowledge. Performance at the advent of the clinical specialist professional development standards is an aspect of educational growth.

In 1979, the APTA House of Delegates resolution stated that the master's degree was to be the entry-level degree for the practicing clinician, citing the practice environment and the external forces encouraging the role of the physical therapist. The first doctorate of physical therapy program was initiated in 1993. The degree was developed in the attempt to

increase the rigor of training to match the rise in the practice capabilities in the clinical environment. The doctorate level of study provides the student with the tools to review scientific evidence as did the master's level programs. Application of the scientific evidence to differential diagnosis is an additional focus of study for the Doctor of Physical Therapy (DPT) student, placing the concept of autonomous, or "self-governing" (APTA, 2003a, p. 1), practice distinctly within the framework of academic preparation.

Coincidentally, the emergence of the physical therapy discipline was dependent upon historical, political, and scientific events external to the profession. In response, the profession sought to elevate the educational preparation of the physical therapist. The aspect that now being examined by the profession and the work environment is the level of performance that the novice professional must possess in order to meet the demands of the changing practice environment, to negotiate rapid advancements in technology, and to meet the needs of the unique characteristics of the individual patient.

The educational preparation, range of practice skills, and work place rigor of the doctorally prepared clinician of the late 1990s to the present day is not equal to the baccalaureate prepared clinician of the 1960s. The progression of the levels of educational preparation, meaning the baccalaureate programs existed in parallel with the emerging master's degree programs, has created educational groups of clinicians. These groups of clinicians, segmented by baccalaureate, master's or doctorate degree preparation now exist parallel to each other. The highly experienced baccalaureate and master's prepared clinicians function along side the less experienced and newly licensed master's and doctorally prepared

clinicians. This discrepancy in educational levels has created for the profession expected groupings without clear guidance from the APTA about how these groups are supposed to interact. The “APTA Vision Sentence and APTA Vision Statement for Physical Therapy” states that by the year 2020 services will be delivered by the DPT or the physical therapist assistant as supervised by the DPT (APTA, 2000, para. 2). Non-doctorally prepared clinicians will not be grandfathered into the physical therapy practice and will have to complete the additional doctorate requirements through a transitional degree process: the t-DPT. This transitional degree will certainly reduce the grouping to levels of experience.

One might question *how* a doctorally prepared clinician is able to practice at the autonomous level and function in the current practice environment. A direction of inquiry is to not only examine the knowledge base of the doctorally prepared clinician but also to examine the appropriate application and utilization of knowledge. One area of recognized knowledge seeking behavior is the clinical specialist certification at the professional development level. On a day-to-day basis, knowledge seeking behavior includes critical thinking, clinical reasoning, and the practiced desire to achieve expertise. Higgs and Jones (2000) describe autonomy for health professionals as “a defined body of knowledge and expertise in a domain...using critical analysis [clinical reasoning] during and after [patient interaction] in unclear or indeterminate situations” (p. 117). This description implies that the practicing clinician must possess expertise or be able to practice at the expert level in order to be autonomous, meeting the needs of the patient and the challenges of the work environment.

Benner (2001) discusses the existence of five levels of professional development (novice, advanced beginner, competent, proficient, expert) within a career path that is applicable to health-care professionals. The expert is able to find “meaningful relationships and patterns ... in the structure of knowledge...where mastery of a particular content domain” is evident (Jensen, Gwyer, Shepard, & Hack , 2000, p. 30). The competent professional falls short of the pace and plasticity of the expert clinician, but has an understanding of the realm of the expert practitioner. The competent clinician is able to practice independently and meet the unique needs of the individual patient and the demands of the practice environment. The “rule governed” (Benner, 2001, p. 21) practice level of the novice clinician, implied by definition, is unable to function in the clinical setting without guidance from an experienced clinician. Theoretically, the novice and advanced beginner DPTs lack autonomy and are insufficient to function in the clinic. The competent clinician is the professional level that begins to best meet the needs of the patient and the challenges of the current practice environment. “Adequately meeting the healthcare needs of the public” (Bank, Denton, Hannemann, Rose, & Radtka, 1998, p. 30) is accomplished by the clinician who gains experience, noted by the transition from novice to expert. Therefore, it would be in the best interests of any facility to facilitate the professional development of the newly licensed clinician toward competence.

Within the context of physical therapist autonomy, competence is the minimum level of practice necessary to ensure that the clinical environment and associated constraints are negotiated appropriately and that the unique patient needs are met. The direct access legislation calls for practice autonomy, and therefore, one can assert that best practice

requires competency. The basic level of practice for the physical therapist to ensure best practices and satisfaction the patient needs, the environment, and direct access concerns must therefore be described as competent practice.

Purpose of Study

The purpose of the study was to gather the characteristics of physical therapist practice and apply the structure of the Benner stages of professional development to the new DPT performance. The practice descriptors of the physical therapist applied to these levels, acquired through the research, will provide the framework of comparison to the Benner references. Previous research conducted by Jensen, Gwyer, Hack, and Shepard (1999) discusses the characteristics of the novice versus the expert. Using grounded theory as the “methodological guide” (Jensen, Gwyer, Hack, & Shepard, 1999, p. 44), Shepard, Hack, Gwyer, and Jensen (1999) uncovered a theoretical framework that was able to describe how the novice, as compared to the expert, practiced. Shepard et al. called for further research in the description of the novice and the expert clinician utilizing Benner’s framework, but she did not initially validate the entire spectrum of Benner’s five professional development levels. The significance of the stages of development themselves and the interconnections of events and practice actions that bring the individual professional through the levels to expertise cannot be ignored. Therefore, the research process open to garnering information about as many pertinent stages as possible from the subject’s continuous experience will be important. Shepard et al. (1999) state:

There are two pressing areas for future research. The first is to return additional study of both the novice clinician and the competent but not yet expert clinician to

determine whether our current theoretical framework can be affirmed or needs further revision. The second area is to explore the clinical outcomes of the novice, competent and expert clinicians to determine whether there are patient outcome differences and if so, what factors appear most important in determining these differences. (p. 756)

This statement gives credibility to the purpose of this study. Establishing all levels of professional development is needed, and they potentially exist within the physical therapy profession. The determination that the Benner framework applies to physical therapy will provide the opportunity for further study in the area of physical therapy professional development as it applies to the meaning and significance of the clinical specialist certification and other life long learning activities. In addition, research may be able to uncover the differences in patient outcomes, the contributing events, and the professional factors involved so that the recipients of care can be better served.

Physical therapy's level of autonomous practice is similar to Benner's competent stage by description, which speaks to the ease in which the nursing terminology may be superimposed on the yet to be defined physical therapy performance. The novice, advanced beginner, and competent levels are significant in that within physical therapy these levels, as described by Benner (2004) are prerequisite and component to autonomous practice. Describing, and thus defining, these levels through identifying critical incidents (pivotal behaviors, events, and actions) may uncover the underlying processes of how the DPT professional evolves from the novice to the expert practitioner in the outpatient practice environment (Benner, 2001). The ability to practice at the autonomous level, in which the

new clinician accomplishes competency, is important to the profession as discussed in the arguments surrounding direct access legislation.

Statement of the Problem and Research Question

The research problem is stated as follows: What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice? The subquestions include the following: (a) Do the Benner stages of professional development define the transition of the newly licensed DPT? and (b) Is the newly licensed DPT able to achieve stages beyond competence?

The use of the critical incident technique (Flanagan, 1954) to identify pivotal experiences that are judged to produce a final outcome has been used effectively in the business, nursing, and medical arenas. How a skill is acquired or allowed to emerge at levels of professional development as a result of critical incidents is the focus of this study. Physical therapy has utilized the Benner stages to initiate discussion regarding the novice and the expert clinician as noted in the work of Jensen, Gwyer, Shepard, and Hack (2000) and Jensen, Shepard, Gwyer, and Hack (1992). The adaptation of a true framework, or the development of professional descriptors, has yet to be conducted by the physical therapy profession.

Within the business, education, nursing, and medical professions, references to critical incident theory implies evaluation of an applied technique or task performed. In addition, the context of performance, the associated behaviors of peers and supervisors who

contribute to the task or who are instrumental in the evaluation, are included as facets of critical incident theory. The transition of the novice professional to the expert level in the outpatient work environment assumes that internal and external factors and relationships contribute to the professional and working environment. A second assumption is that different levels of work performance, practice, and experiences exist in the physical therapy work environment.

Conceptual Framework

The major theories that will inform this study include the five stages of professional development as researched by Benner (2001), grounded in the Dreyfus model of skill acquisition (1986) and critical incident theory researched by Flanagan (1954). Figure 1.1 expresses the hypothesized five levels of professional development occurring as a function of time as positive critical incidents increase. The five levels are interconnected and not mutually exclusive of the preceding or upcoming level. In other words, a professional begins at the novice level and always proceeds forward or stops in the same level. The theoretical framework is applicable to the novice DPT who is learning how to acquire professional skills. In addition, the framework is applicable to the experienced clinician who is introduced to a new setting or has to integrate a new technique into current practice. Practiced clinicians acquiring a new skill may start at any of the five levels, and time required to achieve expertise may vary.

Critical incident theory was introduced by Flanagan (1954) in the business arena as a mechanism of recognizing the emergence of skills crucial to learning and completing a job

task. Subsequently, the factors identified as important to learning skills were organized and sequenced into a training tool for professionals. This format has been adopted by the nursing profession as an evaluative tool, especially to note a clinician's information seeking behaviors within the utilization of scientific evidence (Kemppainen, 2000). Stages of skill acquisition viewed as professional development for the job of nursing care was the topic of Benner's (2001) research. The results of her work provided a means for the nursing profession to describe sequenced skill improvement related to professional behaviors. Promotion and the distinctions between novice and expert emerged from the research.

Physical therapy has made the achievement of direct access the major focus of the profession in conjunction with the elevation of the entry-level degree to the doctorate level. Direct access legislation places in the forefront the recognition of the level of skill of the physical therapist as being worthy of autonomous, independent practice. The gap between the novice clinician and the expert practitioner is evident and has not been addressed in terms of a physical therapy description or theory. This gap is a transition period that may vary for such reasons as the behavior of the individual clinician or resources of the work setting. The organization of these theories and major points form the conceptual framework for this study in order to answer the research question.

As organized conceptually, the interdependence of each of these theories and possible triangulation of data is significant. The transition of the novice DPT to the conceptual level and possibly beyond was captured by the recollection of the critical incident experiences and

behaviors. The organization, sequencing and grouping of these critical incidents formulated descriptions of the stages of transition, or professional development.

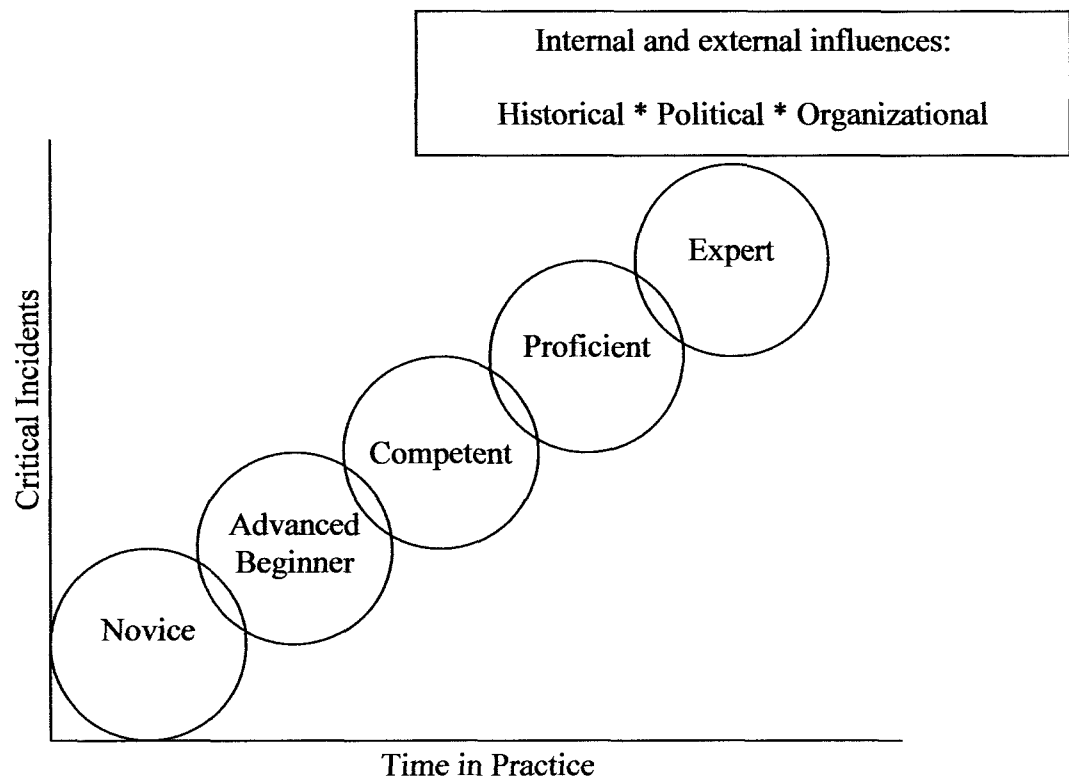


Figure 1.1. Conceptual framework of professional development through practice achieved by the transition of the novice DPT to expert

Significance of the Study

In June 2000, APTA House of Delegates developed and adopted a strategic plan specific to the evolution of the physical therapy profession toward that of the doctoral level

of practice (APTA, 2003a). The House of Delegates proposed that doctoral practice as the minimum standard for all clinicians was to be attained by 2020. To provide a road map for all clinicians to achieve and to be active participants in the doctoring practice of physical therapy, the APTA documented a plan and formulated a specific definition of professional development in the “Goals and Objectives in Plan to Foster Professional Development in Physical Therapy” (APTA, n.d.). The seven goals identified are (a) to foster life long learning, (b) to determine priorities for individual professional development, (c) to determine priorities for APTA’s role in professional development, (d) to promote use of APTA resources, (e) to identify resources, (f) to provide resources, and (g) to promote recognition for professional development efforts and generation of professional development activities (APTA, n.d.). The identified goals indicate that professional development is a topic that the APTA has recently noted as significant to the profession. The process by which professional development is supposed to progress has not been clearly articulated. As the plan goals and objectives are reviewed, the roles of the individual professional, APTA itself, and the organization responsible for providing developmental resources are unclear.

Research aimed at identifying the levels of professional development and how these levels are to be achieved is the primary purpose of this study. The significance lies in that the profession has determined that professional development is an ongoing process. The physical therapy profession has not recognized that the previous research conducted and applied to other established disciplines is also an ongoing process. The stages that are most closely related to the health-care practice that physical therapists view as hands-on care include the stages outlined in the Benner model of professional development. Five of the six professional

development activities described by APTA are written examinations, which fall in the cognitive domain (Bloom, 1980). The clinical residency and fellowship programs are the only activities that observe the performance of the physical therapist, but uses the written examination process as a final measure of success. Residency programs are usually attended by new graduates. Thirty-three residence and fellowship programs exist nationally, of which 12 programs are orthopedic specialty specific.

The recent research conducted by Jensen et al. (1999) and Shepard et al. (1999) look at the professional characteristics of the novice versus the expert using the Benner terminology. Omitted from this research is the value of validating the five stages, their interconnections, and component differences as the “lived experience” (Creswell, 1998, p. 51) of the clinician who is acquiring skill. The phenomena that can be captured and then used to describe the difference in skill of the individual clinician can be used to benchmark specialist practice and the actual achievement of autonomy. Success in the clinic from the perspective of achieving autonomy in a stepwise pattern of professional development has not been examined in physical therapy research or literature.

The typical considerations of career success emphasize the clinician’s perception of advancement in terms of movement or change within the organizational structure (Rozier, Raymond, Goldstein, & Hamilton, 1998). The production of a body of knowledge that suggests how to raise the novice clinician to the expert level in a recognized and sequenced format will be new to the profession. The identification of a pace of transition associated with definitive experiences, the critical incidents, will facilitate the transition of the novice DPT to

the expert level. The study results will be instrumental in sustaining the credibility and identity of the profession and bolster the argument for direct access practice nationally.

CHAPTER 2: LITERATURE REVIEW

The purpose of the literature review, firstly, is to present the recent information regarding the physical therapy profession's perspective and working definition of professional development. Examination of the profession's changes is crucial to understanding the discussion of practice standards, imposition of external constraints shaping the current practice environment, and present, yet undefined, levels of practice expertise. Secondly, the literature review discusses the stages of professional development through the lens of the research conducted by Benner (2004). A solid understanding of Benner's research will provide a means of examining the stages of professional development as a viable configuration for physical therapy. Discipline-specific research will provide the components for physical therapy to construct its own concrete framework. The implications of acquiring specific job skills related to the work environment and the associated behaviors are described at length by Benner and Dreyfus and Dreyfus (1986).

Lastly, critical incident theory will be explored as a viable qualitative research method applicable to the health sciences. An objective and unbiased means of collecting data pertaining to the potential stages of professional development and the job-related skills is currently lacking in the profession (Flanagan, 1954). Thus far, research science has been unable to directly measure human experiences or behaviors giving credence to the choice of the qualitative approach for this research study. Physical therapy, however, has not outlined the details involved at each stage of professional development or described the sequence of

activities within the skill sets that unfold in the transition from a novice to an expert level clinician.

Few discipline articles have been published that reference the stages of professional development and the associated skills, but they lack tested validity. The outcome of this research study is to uncover the underlying processes of *how* the DPT professional evolves from the novice to the expert practitioner through identifying the critical incidents (behaviors and experiences). To be able to group these critical incidents into the descriptors provided by the research data will add to the current gap in the physical therapy and health science literature.

Physical Therapy Practice Benchmarks in Professional Development

Legislative efforts to pass direct access to physical therapy practice without physician referral were started in the early 1980s. As the framework of critical inquiry expanded within the profession, independent thinking and meeting the needs of the unique characteristics of the individual patient became entrenched in daily practice. The APTA “Code of Ethics” (APTA, 2003b, p. 689) was revised to eliminate physician accountability for the physical therapy diagnosis, intervention, and termination of services. This legislation has been effective in acquiring direct access for 38 states and the military, but most states are constrained by medical insurance companies requiring physician referral for reimbursement of physical therapy services.

A second benchmark pertains to global concerns. The growth of the profession did not abate with the advent of AIDS and the resurgence of tuberculosis (TB). Higgs, Hunt, Higgs, and Neubauer (1999) discuss that the changing backdrop of health care as globalization has become a significant contributor to all concerns surrounding patient management.

...The dissemination of healthcare knowledge and technology [is] no longer restricted to governmental or geographic boundaries...Globalization is restructuring societies of the world through the redistribution of employment and finance...generating widespread health consequences such as new illnesses associated with new regions of unemployment and poverty...[and] demographic patterns of social health and disease. (Higgs, Hunt, Higgs, & Neubauer, 1999, p. 21)

The level of clinician professional competency within the framework of the expanded skills of the physical therapist requires that practice encompass the local and global health-care context. Situational leadership and management of complex illness in uncertain environments causes the physical therapist to function in one of several ways that include functioning competently at all times, as a scientist, as a problem-solver, and as a reflective practitioner, accepting accountability and responsibility for the patient and treatment conditions (Higgs et al., 1999).

The environment of uncertainty that is now occurring at the level of active disease and cure is a result of the pioneering advancements that continue to unfold in the study of genetics (Long, Brady, & Lapham, 2001). The impact on the practice of physical therapy is

that the profession no longer problem solves at the system level. The discovery of the source of illness and the process of the cure at the gene level has caused all health professions to rethink their strategies of intervention. For example, research in genetic medicine may find a method of arresting cerebral vascular accident, otherwise known as a stroke. How will this cure manifest itself in the human body? What other risks or side effects may present with this new cure? Will those individuals with a different genetic makeup react differently to this new cure? One change in intervention raises a myriad of questions and possible treatment solutions that health-care professions are currently unprepared to deal with negotiate. The ability to rely on sound scientific evidence and apply the substantive information gathered to practice requires an advanced process of critical thinking. The ability to address the unique characteristics of the individual patient and to negotiate the changing scientific evidence, as well as the practice environment that a physician referral, is unable to encompass is achievable in the clinical practice of autonomous practice.

A far distance from the “Reconstruction Aide” (Plack & Wong, 2002, p. 49), autonomous practice as we know it today involves the ability to function as an independent clinician through demonstration of situational leadership skills and assumption of personal responsibility for addressing the complexities of each individual patient case. Health-care needs and the practice environment are complex entities that are both local and global in perspective and, therefore, may not be negotiated by any means at the technical level.

The APTA developed the “APTA Vision Sentence and APTA Vision Statement for Physical Therapy 2020” (2000) in order to lay out a statement recognizing the current and

upcoming expectations within the profession for the graduate clinicians, experienced practitioners, and the general public. The document states that:

By 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy, recognized by consumers and other health professionals as practitioners of choice to whom consumers have direct access for the diagnosis of, intervention for, and prevention of impairments, functional limitations, and disabilities related to movement, function and health... Physical therapists will...hold all privileges of autonomous practice...guided by integrity, life long learning and commitment to comprehensive and accessible health programs for all people.... (APTA, 2000, para. 1-3)

Since the appreciation for the desire of physical therapists to be autonomous in practice and for the complexity of health-care delivery, the APTA constructed the “Plan for Transitioning to a Doctoring Profession” (APTA, 2003a, p. 1). The plan consists of six rudiments: DPT, evidenced-based practice, autonomous practice, direct access, practitioner of choice, and professionalism. APTA has recently recognized that in order for the profession to function with the six rudiments listed, *professionalism* had to be defined (p. 1). In August 2003, the “Professionalism in Physical Therapy: Core Values” attempted to define professionalism by establishing seven core values: accountability, altruism, compassion and caring, excellence, integrity, professional duty, and social responsibility (APTA, 2003c, p. 3). The expectation is that physical therapists will demonstrate and develop these core values throughout their careers. The acquisition of these core qualities will occur through experience, exposure, guidance, and a positive professional environment. Professional career

development, or professional development, was defined for APTA in “Your Professional Development Blueprint” by Starke (n.d.), who states, “Professional development is the foundation for where the physical therapist assumes an attitude of inquiry and engages in an ongoing process of assessment and evaluation of knowledge, skills and abilities” (para. 3).

The language of the 2020 vision statement, the core values, and the definition perspective of professionalism encompass information seeking behaviors and demonstration of best practice. Physical therapy does not say how a clinician becomes a professional through professional development activities. These activities are described within “Your Professional Development Blueprint” (Starke, n.d). By acquiring knowledge through education external to the clinic and clinical practice, autonomous practice excellence is achieved.

The Benner Model: Descriptions, Connections and Leadership

The discussion surrounding the physical therapy profession is definitively the achievement of autonomous practice. Autonomy is independent practice, meeting the needs of the unique characteristics of the individual patient and the challenges of the current health-care environment. Autonomy is not a practice level that can be acquired upon the immediate completion of the academic process, or even at the early stages of work experience.

In the research conducted by Benner, she describes five stages of professional development where the acquisition of skill is a function of the utilization of the knowledge base one possesses within the reality of experience. “Novice, advanced beginner, competent,

proficient, and expert” (Benner, 2001) are the stages of professional development and skill acquisition as described by Benner (2001).

Benner expanded upon the research conducted by Dreyfus and Dreyfus (1986), mathematician and philosopher respectively, who investigated skill acquisition strategies of chess players and airplane test pilots. The major reason for the initiation of this research was to draft a response for industry regarding the apprehension toward the introduction of technology in the training professions. Were the training and learning styles involved in acquiring job-related skills going to change drastically? How would job tasks change as the technology of the computer became integral to the work environment? The preparation of adults in the acquisition of new skills, specifically job skills at the advent of the machine was entering a new and unanticipated phase that required analysis.

A person usually passes through at least five stages of qualitatively different perceptions of his task and/or mode of decision-making as his skill improves....As human beings acquire a skill through instruction and experience, they do not appear to leap suddenly from rule-guided “knowing that” to experienced based know-how. (Dreyfus & Dreyfus, 1986, p. 19).

The quality of job training and education had moved from the apprenticed, technical model to the current era of written and verbal instruction. The modern format of training does not allow the average worker to gain concrete experience in genuine conditions and unprepared scenarios. Therefore, skill levels are acquired in the work environment according

to the realm of the particular job tasks, which encompass the critical thinking required at each stage of experience.

Dreyfus and Dreyfus (1986) discuss the applicability of their model to the health sciences and education. Benner's phenomenological research expanded the Dreyfus Model to the nursing field. Through semistructured interviews with practicing nurses Benner was able to establish a broad body of knowledge from the experiences of the individual clinicians. These individuals, through their work experience, had to develop "skills of involvement and moral agency...linked to the development of expertise" (Benner, 2004, p. 188). Benner (2004) attempted to ask at what stage of professional development is "discretionary judgment" (xxiii) by the clinician and how did this way of thinking develop. Additional components explore the increased pace of the nursing practice environment and the resultant needs and learning styles of the nursing clinician required to function successfully as skills emerged. As the pace and complexity of nursing practice change, so did the business arena studied by Dreyfus and Dreyfus (1986) at the advent of the computer age. The level of uncertainty and apprehension is assumed to be similar, hence the reason for research.

Benner (2001) expands the body of research by identifying that embedded within these five levels of professional development are three general levels of skilled performance used to describe the transition between the stages. The research itself addresses the practical skills of the subject according to the context of expected performance, such as within the context of the physical therapy profession. The research presents a situational or contextual model rather than the examination of performance qualities. The first general skill level is

“the movement from reliance on abstract principles to the use of past concrete experiences as paradigms” (Benner, 2001, p. 13). The second level is described as “a change in the learner’s perception of the demand of the situation” (Benner, 2001, p. 13) in which the situation is seen less as discrete, unconnected events and becomes a process in which pertinent events are integrated and utilized whereas other events are appropriately eliminated. The third is the transition from the “detached observer to the involved performer” (Benner, 2001, p. 13) where the clinician is no longer outside of the circumstance but becomes absorbed and empathetic within the situation. These bridges to the five stages of professional development denote “general aspects of skilled performance” (Benner, 2001, p. 13) that are found in combination or gradations within each of the stages.

At the “novice” (Benner, 2001, p. 20) stage of professional development, clinicians have minimal experience in the work environment. The novice is taught to assess the work environment and the concerns of the patient using the tools of measurement common to the situation and the discipline. Rules that direct one’s actions are the context in which the novice clinician performs all levels of patient tasks and negotiation of the environment. Rules based performance suggests that the individual clinician is embarking on the ability to translate theory learned in the classroom and introduced constructively within clinical internship to the contextual meaning in the work place. The aims and apparatus of a new job and the work environment are untried, and the real situations of the patient population and environment constraints must be learned. The context of the new situation must be experienced.

The “advanced beginner” (Benner, 2001, p. 22) professional has gained experience within the new work situation. The professional learns to recognize interconnections between events experienced or acknowledges the process when a mentor or a supervisor notes those events. For example, the therapist is able to interpret a patient’s response to treatment because of experience gained by treating a number of patients with a similar diagnosis and seeing an expected range of responses. The advanced beginner has yet to learn to apply these new skills to a different group of patients. The advanced beginner has not “perceived recurrent meaningful patterns in their clinical practice...[and lacks the ability] to sort out consistently what is important” (Benner, 2001, p. 25). Benner suggests that the advanced beginner still needs supervision in order to meet the needs of the diverse patient population in any health-care work environment.

The third stage is the level of “competency” (Benner, 2001, p. 25). Benner (2001) attaches a time frame of two to three years of experience in the same or similar work environment to this professional level. The competent clinician functions from the perspective of long-term goals and plans. The clinician can take the current status of the patient, consider the future situation or discharge plan, and discriminate between the information that is meaningful to the process and that which can be ignored or is irrelevant to the patient’s process of recovery. The actions of the competent clinician are mindful and premeditated with the solid potential to acquire efficiency in task implementation in an organized or stepwise fashion. Benner discusses that the competent professional lacks the pace and plasticity of the master clinician but is emerging toward the highest level of

performance. Within the physical therapy profession, competency is consistent with the ability to make clinical decisions at the autonomous level.

According to the “Guide to Physical Therapist Practice” (APTA, 2003b) and within the physical therapy literature regarding direct access, the independent clinician who is accountable and responsible has acquired competence in performance. The ability to negotiate the work environment and appreciate patient differences are the qualities that are required to function at the level of autonomy, the expected level of performance for the practicing physical therapist. The competent clinician is also able to demonstrate leadership qualities in order to make the correct decisions based on critical thinking skills where scientific evidence is applied to the situation. Within the educational leadership arena, the work of Senge (1994) can be used to describe the qualities of the competent clinician. As clinicians are able to appreciate the status of the patient and the work environment, they apply the “systems thinking approach where the relationships of forces, pertinent information and applicable principles are recognized” (Senge, 1994, p. 7). Competent clinicians are able to appreciate the dynamic aspect of systems thinking as they consider the patient differences and potential changes in any work environment. Leadership is demonstrated differently for each patient case and for each situation within the work environment. Therefore, the element of flexibility, also noted by Benner (2004), is an important component of this skill level. Flexibility and speed of action is being developed at this stage but is recognized as an important attribute to perfect by the emerging clinician.

The principle of personal mastery is another area identified by Senge (1994) as a leadership quality that is needed by the clinician in order to contribute to the learning organization, hospital, or clinic. Within the physical therapy clinic, the translation of personal mastery is the clinician's recognition of the challenges of the health-care environment, or the current reality. The clinician is able to dispel the mental model of how the organization should function. However, the organization functions differently because of the motivation to provide the quality of patient care, accomplished by utilizing solid skills and exercising autonomy in order to meet the needs of the patient (Senge et al., 1994).

The last two stages of professional development as discussed by Benner (2001) are the proficient and expert levels. The proficient clinician has a stronger sense of when classic events are expected within the work environment and are more familiar with the situations that present themselves in a broad range of patient care situations (Benner, 2001, p. 27). This proficient clinician can rely on past experience to assess the gestalt of any given situation and focus efficiently in on appropriate solutions and strategies for effective task completion. Proficiency allows the clinician to function at the intuitive level rather than following the stepwise process of the rules based novice practices.

The expert clinician functions at the intuitive level with speed and accuracy, relying on a vast range of experiences (Benner, 2001, p. 31). Expert clinicians have a deep understanding of any situation or complexity of patient. They often have difficulty explaining their rationale for treatment approaches or choice of examination strategies, because they operate at a complex level. The expert physical therapists in the clinical setting have

difficulty articulating how they arrive at their choice of handling or examination technique considering the possibilities of each patient's manifestation of illness. This level of clinician is able to integrate information from multiple research sources and apply the derived information to meet the unique needs of the individual patient, which does not necessarily transfer to the next case. According to Benner (2001), expert clinicians are able to apply their master skills to situations that are not in their previous experience at a level of speed and flexibility where the new situation is not easily recognized as novel.

Jensen et al. (1992) made efforts within the physical therapy research arena to examine the characteristics of the physical therapist in the outpatient setting through the lens of the novice and expert professional levels. As stated previously, Benner (2004) uses three dimensions to help define the five stages of professional development: (a) the reliance on abstract principles, (b) the recognition of the demands of the situation, and (c) the engaged and involved performer (p. 13). Jensen et al. (1992) break down the skill level into two areas: "knowledge in predicting patient outcomes...[and] improvisational performance...[that is] in response to the individual patient disease, disability state and patient specific needs" (p. 718).

According to Jensen et al. (1992), the novice clinician demonstrated the "intent on collecting data to fill in their evaluation forms in the hope of finding an understandable diagnosis" (p 718), the rule-based level of function. In terms of improvisational performance, the novice clinician sought to control the environment without success. Within the research examples, the novice clinician struggled to maintain focus on care on the patient and demonstrated reactive judgments in response to the challenges of the work environment.

In contrast, the master clinicians, or experts, at the knowledge level had at their disposal a “cognitive framework” (Jensen et al., 1992, p. 718) that was vast and well developed, based upon previous clinical experience. The master clinician had a deep understanding of the variety of potential patient responses and possessed the ability to treat all patients in a self-assured and resourceful manner. The master physical therapists were able to negotiate and problem solve within uncertain circumstances or with inexact information.

Upon the examination of their improvisational performances, the master clinicians were able to control the environment and focus on the unique and specific needs of the patient. The level of leadership displayed by the master clinicians showed an application of Senge’s (1994) systems thinking principle. Personal mastery was applied as the expert became an integrated member of the learning organization, adding a “give and take” dimension to the function of the organization, considering the time and fiscal constraints common to the outpatient work environment.

In Jensen et al. (1999), the product the research developed was the expert practice model. This model included the following components: knowledge and clinical reasoning, movement central to practice, professional virtues, and philosophy of practice (Jensen et al., 1999, p. 175). These components provided a physical therapy context to Benner’s (2001) description of the expert level of professional development, but the research work conducted regarding physical therapy expertise cannot be aligned distinctly to Benner’s work that examines the scope of professional development from the novice to the expert level. The

validation and alignment of the characteristics of the spectrum of physical therapy practice from the novice to the expert has yet to be established. The examination of expertise without an understanding of the building characteristics hinged upon critical events, which produce the necessary professional growth, are of value as noted in Benner's examples.

Upon further review of the literature, the validity of Benner's line of research first published in 1982 was disputed by English (1993) but was later supported by Darbyshire (1994) within the nursing literature. English fails to view qualitative research as viable and significant to science. The "generalizability" (English, 1993, p. 392) of the Dreyfus model to nursing through the Benner research was not accepted by English because of the lack of definition of the five stages of professional development through quantitative means. Benner's work was conducted through the interview methodology using the clustering of similar experiences to organize the comments gathered. Because human behavior cannot be directly measured, English had difficulty approaching the body of research as credible scientific investigation. For example, the intuitive level of function of the expert, as described by Benner, is a behavior that "lacks [explanation] in rational scientific terms" (English, 1993, p. 390). This kind of terminology used in the determination of the stages of professional development was adverse to English's desire for a rational interpretation of the study results.

In Benner's (2001) defense, Darbyshire (1994) discussed the merits of qualitative study. Darbyshire presented examples of how the nursing profession has utilized Benner's work as an evaluative tool within the practice environment. In addition, Darbyshire discussed the use of Benner's research in the educational arena as the complexity of preparation in

nursing escalates in conjunction with the elevation of the basic skills required to function in the clinical setting. Darbyshire points out that the groundwork laid out by Benner has facilitated nursing research in many topic areas such as the interpretation of care giving.

Critical Incidents

In addition to gathering thematic information during this study as to how the new DPT clinician transitions from the novice to the expert stage, identification of significant events clarify the realm of comments. The documentation of retrospective judgments of significant events has been used by the nursing and medical professions as a method of organizing critical comments and using these statements as a means of evaluating the professional. This means of evaluation and identification of critical incidents gives the evaluator an idea of the level professional performance of an employee. The job or task readiness of the individual may be identified.

Flanagan (1954) was the researcher who introduced critical incident theory to the business and aviation arena as a method of evaluating the effectiveness of the established training methods. The critical incident technique “outlines procedures for collecting observed incidents having special significance and meeting systematically defined criterion” (Flanagan, 1954, p. 327). The nursing and medical professions have adopted the critical incident methodology in order to gather information about the performance of their professionals.

According to Angelides (2001), “critical incidences” (p. 431) are not incredible occurrences. The events themselves are activities or tasks that take place and are looked upon as lesser affairs. The incident becomes noteworthy based upon the subject’s “justification...significance and the meaning given to...” (Angelides, 2001, p. 431) each activity. The phenomena, or lived experience, and the reflection attached to the activity are qualitatively based. Angelides refers to Tripp in her article to exemplify the significance of simple experiences. Tripp states:

The vast majority of critical incidents are not dramatic or obvious; they are mostly straightforward accounts of very commonplace events that occur in routine professional practice which is critical in the rather different sense that they are indicative of underlying trends, motives and structures. (Angelides, 2001, p. 431)

Using the critical incident technique, it is expected that the influences of observer bias will be reduced and the researcher will be able to isolate the time frame and context of the occurrence of the particular incidents. Although expectations of use of the technique speaks to reduced observer bias, Flanagan (1954) discusses that the role of the researcher is to classify each incident into valuable or worthless groupings so that the research process maintains the proposed gravity.

An effective critical incident leads to significantly better than average accomplishment of a particular aspect of a job assignment, mission or responsibility.

An ineffective incident leads to significant delay, mistakes, omission, lack of accomplishment or obstacles to achievement of work...An individual critical incident is not an evaluation of a person. It is an observation of ‘what happened’ what action

took place, and what were the consequences. (Mayeske, Harmon, & Glickman, 1966, p. 21)

These variables and others are significant in deciding the efficacy of a particular training regimen, quality of experiential learning experience, or outcome of a specific curricular model within the profession. In the compilation of the critical incident experiences, Flanagan states that five conditions must be met:

a) actual observation must be made of the task activities and the products of these activities b) the aims and objectives of the activity must be known to the interviewees c) the basis for the specific judgments must be clearly defined d) the interviewee must be capable of judging the performance as competent or incompetent and c) reporting must be accurate where problems are minimized if the incidents have been observed within the recent past. (Ronan & Latham, 1974, p. 53).

In a study conducted by Ross and Altmaier (1990) assessing the job quality of psychology interns, critical incident theory methodology was used. Ross and Altmaier state that the use of the critical incident technique:

leads to the definition of those attitudes and behaviors necessary for successful job performance. The objective of the critical incident technique is to obtain specific and concrete behaviors that designate a person as outstanding or inadequate in his or her job performance. The job requires observers, who are aware of the aims and objectives of a given job and see people perform the job on a frequent basis, describe incidents of effective and ineffective behavior.” (Ross & Altmaier, 1990, p. 460)

The use of critical incident theory within the framework of this study was similar to the framework used in Ross and Altmaier's work but it focused on the incidents identified as critical during the transition of the new DPT from the novice to the expert level of professional practice.

The validity and reliability of critical incident theory was presented in a study conducted by Ronan and Latham (1974). The ability for the study to show that critical incident theory's "emphasis on relatively observable and objective behaviors permits adequate test-retest inter-observer reliability of resulting behavioral measures" (Ronan & Latham, 1974, p. 61), which is in agreement with the previous validity and reliability studies conducted by Andersson and Nilsson in 1964, where critical incident theory methodology is fitting.

The Ronan and Latham (1974) article also discussed the meta-analysis conducted by Flanagan himself during his original research in 1954. The limitation to the technique that was identified by Flanagan and expanded upon within this article is the recall of events required in the retrospective account of pertinent behaviors and actions, the critical incidents themselves. Flanagan states that the ideal condition would be to ask the subject to recall events that have taken place within the recent past, or the last year. Actual research using this technique may have to ask for the recall of events at a greater length of time dependent upon the contextual environment.

Norman, Redfern, Tomalin, and Oliver (1992) conducted research that addressed the issue of the critical incident itself as not being “a clearly demarked scene with a clear beginning and end” (Norman, Redfern, Tomalin, & Oliver, 1992, p. 595), but it is a “valuable description of the characteristic actions of one nurse observed over the course of many similar and different incidents” (Norman et al., 1992, p. 595). Effective and ineffective observations were a noted part of the data. Norman et al.’s (1992) research, identified the marker of distinguishable and unimpressive nursing skills and develop the critical incident technique validates Flanagan’s (1954) original work. Critical incidents are not a set of chronological experiences but are a “flexible set of principles which must be adapted to meet the specific issues under investigation” (Norman et al., 1992, p. 599). The vital events are therefore consequential in light of “related incidents and the meaning of observable events...of crucial importance” (Norman et al., 1992, p. 599).

Allery, Owen, and Robling (1997) discussed in their research the quality of physician practice and the changes in practice behavior influenced by learning activities. Allery et al. (1997) described these educational events as information seeking activity conducted around meeting other professionals, “reading medical journals and attending scientific meetings and correspondence” (p. 872). The study accomplished scientifically addressing the evaluation of educational events using critical incident methodology. The value and volume of changes that took place connected and gave meaning to events that took place over a number of years but were of impact to be recalled during the interview data collection process. The findings in this research study have “implications for both the provision and the evaluation of continuing medical education” (Allery et al., 1997, p. 872). The validity of Flanagan’s (1954) research

was therefore bolstered by this work via “the quantitative correlational approach...exploring complex phenomena” (p. 872).

In summation, this chapter has provided an organized view of the significant changes within the physical therapy profession including the topics of practice standards, the practice environment, social influences and the undefined expertise in physical therapy. These topics were used to embark on the explanation of the gap in research that this body of work filled. The literature review discussed the Benner (2004) defined stages of professional development. This applicable framework was raised for physical therapy consideration as a constructive line of research to find an operational definition for physical therapy professional development per this body of work. The pertinence of the qualitative research methodology, critical incident theory, was found to be objective and unbiased in keeping with health sciences research discussed.

CHAPTER 3: METHODOLOGY

A discussion of the methodology involved in this study ensues as a means of clearly identifying the proposed scope, the definition, and the assumptions of the components of the method of investigation. This chapter poses the intended outcome of this study, the study design with illustration, the sampling strategy chosen, the procedures, the instrumentation, and the study limitations. Consistent reference is made to the methodological design, as shown in Figure 3.1, as a mechanism of organization, especially within the study design and procedures discussions. This study was framed by the mixed methods approach (Creswell, 2003). The inquiry sequence was “concurrent triangulation” (Creswell, 2003, p. 217). Qualitative and quantitative data were collected meaning strategy convergence occurred during data analysis and the interpretation stage (Creswell, 2003, p. 217).

Qualitative research “involves an interpretive naturalistic approach to its subject matter.... The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a naturalist setting” (Creswell, 1998, p. 15). The “researcher describes the meaning of the lived experience for several individuals about a concept... where the consciousness of the human experience is explored” (Creswell, 2003, p. 51). Quantitative strategies, such as questionnaire formation or the imposition of structure to an interview, provide credence to the model by supporting findings.

The intended outcome of this study was to uncover a description of an experience and how this experience was lived. The research study encompassed the elements of the professional development of the novice DPT to the expert level of physical therapy practice facilitated by distinct events, behaviors, clinical decision-making skills, professional attitudes, and stages of professional performance. These distinct events and/or behaviors were collected by directly asking the study's subjects to retrospectively judge their personal occurrences (experiences). The recalled events and/or behaviors (the critical incidents) were used to problem-solve practical issues within the context (the outpatient setting) in which the qualitative information was collected (Byrne, 2001). This methodology of synthesis and organization into themes of the data collected is termed the Q Sort (Chinnis, Summers, Doerr, Paulson, & Davis, 2001).

The results of the study are expected to have implications for application to the physical therapy profession that are best able to be generalized to the outpatient clinical setting. Specifically, it is the presence or absence of critical incident experiences available to new clinicians that may serve as an indication of potential professional growth from the novice to the expert stage (Benner, 2001). Academic preparation may also influence the stage at which the new DPT commences work as a practitioner, which is not necessarily at the novice level, and the capacity to effectively transition to the competent level of professional development.

This study is an example of basic research with the intention of generating a body of work "that focuses on descriptions of what people experience and how it is they experience

what they experience” (Patton, 1990, p. 71). This type of research requires a close connection to the problem and its details and should not focus on “the essence of shared experience” (Patton, 1990, p. 71). Fieldwork or “field techniques” (Patton, 1990, p. 153) are employed in order to understand the context of where or how the question was formulated.

According to Patton (1990), qualitative study strongly implies that the researcher understand the tangible nature of the topic under examination in order to fully know how to data collect appropriately, and ultimately, equate the findings to the research question. “Field techniques” (Patton, 1990, p. 153) are the strategies of qualitative investigation that Patton (2002) focuses upon and organizes into four major categories. The field techniques to be employed within this study include:

- Qualitative data
- Personal experience and engagement
- Empathetic neutrality and mindfulness
- Dynamic systems (Patton, 2002, p. 40)

Patton (2002) discussed that the category of qualitative data that includes “interviews that capture direct quotations about people’s personal perspectives and experiences” (p. 40). Within the body of this chapter, the design, timing and components of the interviews to be conducted for this study are outlined.

The fieldwork strategy individual encounter and interaction includes the researcher’s direct contact and becoming familiar with the subjects, circumstances and experiences.

Patton (2002) emphasizes that the personal experience of the researcher gives credence to the investigation and the application of the research question to the environment in which the phenomena is being studied. In this case, the field of physical therapy is being explored by a researcher who is a licensed physical therapist with extensive experience, both practically and administratively, in the outpatient setting.

“Empathetic neutrality and mindfulness” (Patton, 2002, p. 40) were employed by conducting the interviews as a one-on-one in person events at a location, at a time, and within a time frame of the participants choosing. The removal of judgments within the neutrality standpoint were to be achieved by solid preparation on the part of the researcher (a) to be prepared and focused in the semistructured interview process, (b) to utilize such entities as validation committees and theme validation research assistants, and (c) to process the feedback given by the participants via text review and fieldwork notes.

The final category of “Dynamic Systems” according to Patton (2002) includes attending to detail and using methodology that is applicable to answering the research question. Additionally, the researcher, or fieldwork strategist, must include in the methodology implementation the ability to change research strategies to a Plan B if the original Plan A methodology is not feasible. For this research study, that flexibility would include (a) the employment of stratified purposeful sampling for all groups, (b) the examination of the participant recruitment strategies, (c) the arrangement of interview questions that meet the objectives of the interview as they apply to the research question, and (d) the use of various data collection methods to triangulate the research findings.

Design

This mixed methods study focused on examining the professional development process of new doctorally prepared physical therapists in the outpatient setting. The research problem is stated as follows: What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice? The subquestions include the following:

- (a) Do the Benner stages of professional development define the transition of the newly licensed DPT? and
- (b) Is the newly licensed DPT able to achieve stages beyond competence?

Transition from the novice to the competent level is necessary for the new clinician to minimally function within the clinic at the autonomous level in order to meet the needs of the individual patient and negotiate the challenges of the outpatient clinical setting. Analysis of developed themes and critical incidents derived from semistructured interviews of expert clinicians and from focus group interviews with the new DPT clinicians facilitated the generation of abstract data. Therein, data was streamlined and the relationships between the themes were identified. This method provided the researcher with the means to constantly compare the categories of data in order to interpret the findings. The coordinated use of qualitative data facilitated the development and refinement of theory (Glaser & Strauss, 1967).

To bolster the study, theory triangulation was used to interpret the data collected. Theory triangulation occurred through the alignment of the data collected. Alignment and subsequent interpretation was completed for the Benner model of the stages of professional

development, the components of the themes of behaviors identified, and the substantiation of the data found by referencing Bloom (1980), Senge (1994), and other researchers as the results dictated.

Data triangulation was used to strengthen the rigor of the study results, as this body of work may be examined by the research community in conjunction with qualitative studies of a similar topic. A chi-square analysis was conducted comparing the frequency of recurrent themes that appeared in the comments collected during the semistructured interview. The comparison and the calculation of an association or lack thereof between each group, the expert and new DPT clinicians, was conducted in the data analysis. Additionally, the new DPT clinicians completed a questionnaire and the results were used to strengthen the results of the chi-square analysis and the identified themes gathered from the semistructured interviews. The questionnaire details were derived from the themes identified in the expert interview content. Within the actual semi-structured interview, similar responses for basic themes before the expansion of comments allowed this researcher to identify repeated themes.

Figure 3.1 is a detailed stepwise illustration of the design of this study, described in narrative form within the remaining portions of this chapter. The organization of the methodological design reveals that the study was completed in four distinct phases. Phase 1 and 3 outline the sampling and data collection steps for the two groups: expert and DPT clinicians. Phase 2 and 4 outline the data sort, results, and interpretation portions of the study.

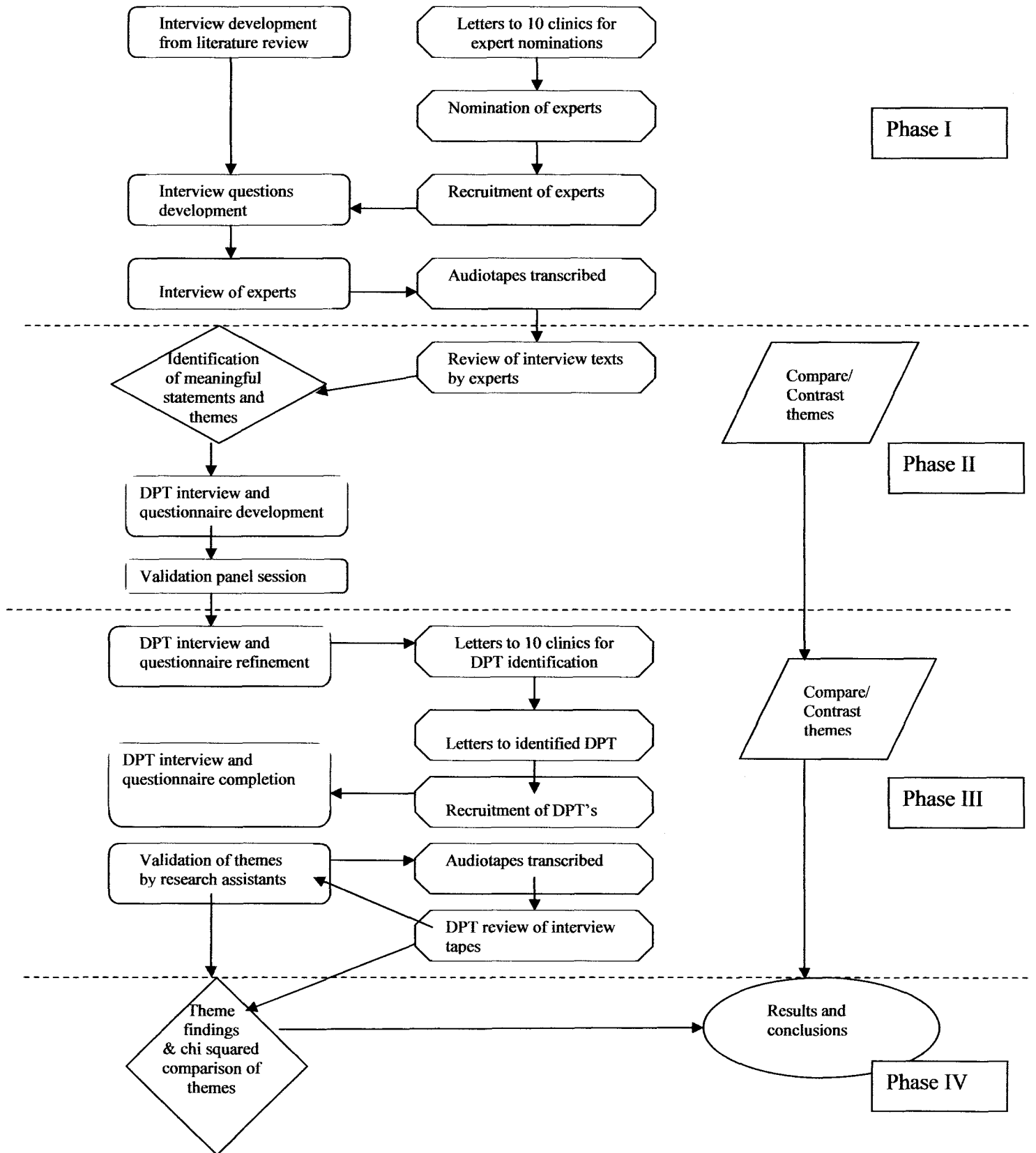


Figure 3.1. Methodological design of the research study illustrating Phase 1-4.

Sample

The sampling strategy chosen for this study is referred to as stratified purposeful sampling. According to Patton (1992), this strategy “illustrates characteristics of particular subgroups of interest [that] facilitates comparison” (p. 182). The two unique sample populations that were interviewed are expert and new DPT outpatient clinicians, in order to represent the novice to competent professional levels. The samples were stratified and purposeful according to outpatient work setting, location of work setting (private practice, hospital satellite, or corporation), state of licensure (Connecticut, Massachusetts, New Jersey, New York, or Rhode Island), and stage of professional performance (novice, advanced beginner, competent, proficient, expert; Benner, 2001; Miles & Huberman, 1994).

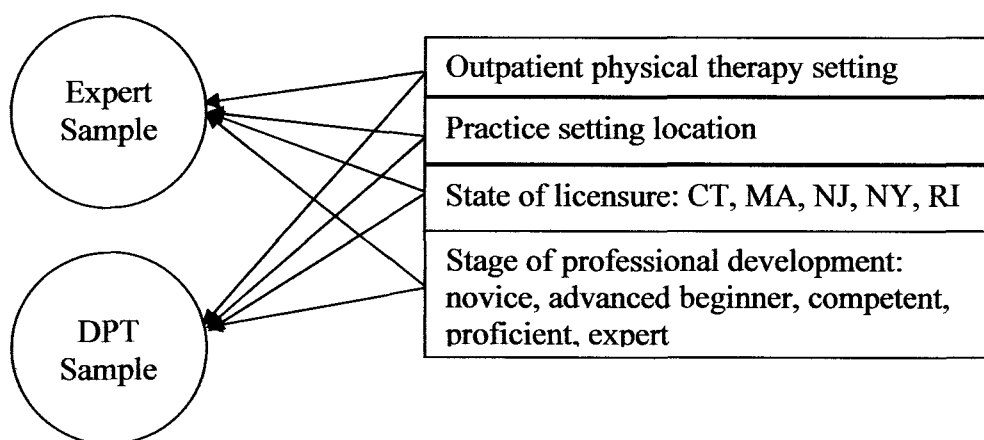


Figure 3.2. Sampling criteria for each sample group.

An additional consideration within the context of sampling is the actual sample size, Patton (1992) discusses that there are no guiding principles regarding sample size. Therefore, sample size is dependent upon knowledge of the field or discipline, the purpose and

significance of the research question, and the feasibility of the fieldwork depending upon the resources and amount of time available to the researcher (Patton, 1990).

In order to gather information necessary to define the range of critical incidents and other variables, potentially identifiable from the major themes, expert outpatient clinicians were interviewed. Subjects, who have attained the expert level of practice for the purposes of this study, indicated that they have satisfied any one of the following criteria: (a) identified as experts by their peers who have read and used the Benner model of professional development to assign the status of expert; (b) received a clinical specialist certification in orthopedics, geriatrics, neurology, or pediatrics or demonstrated a track record of advanced work in a specialty area; (c) employed for a minimum of two years in clinical practice (Benner, 2001); (d) provided 2,000 hours of direct patient care in the outpatient setting within the last seven years, 25% of which must have occurred within the last two years (APTA, 2006); (e) employed currently as a practitioner in the outpatient work setting; (f) acted as a resource for complex practice concerns to other clinicians, including those clinicians from other disciplines; or (g) received referrals for evaluation and treatment of complex patients (Jensen et al., 2000, p. 31).

The time frames of experience for the expert were not maximally limited. The experienced, expert clinician, in order to function in the clinical setting, must remain current regarding the ongoing changes in technology, the associated differences in interaction, and the behaviors related to clinical tasks. These expert subjects were nominated by a currently practicing outpatient physical therapist in Connecticut, Massachusetts, New York, New

Jersey, and Rhode Island according to the criterion noted. These subjects participated in a semistructured interview, rather than the more commonly utilized focus group format.

Expert clinicians, who function autonomously in the outpatient setting, do not regularly work within the same facility or close geographic area as each other. Therefore, focus group formation was not chosen, because it would present logistic difficulties and ultimately, harm adequate data collection. Through the semistructured interview process the critical incidents and the units of analysis were identified. The sample size number of 40 subjects for this group of expert clinicians was expected to be significant enough to allow comparison of data gathered from the DPT subjects (Creswell, 1998). Frequency of occurrence of the identified practice characteristics between the two sample groups were analyzed by “applying the chi squared statistic” (Portney & Watkins, 2000, p. 537).

The sample of DPT subjects were gathered from the licensed, doctorally prepared physical therapists registered in Connecticut, Massachusetts, New Jersey, New York, and Rhode Island. The subjects were categorized according to their place of work and contacted for inclusion in the study. The expectation is that the population will consist of 67% female and 33% male subjects, wherein speculated female to male ratios are based on the current national gender distribution within the profession (APTA). The distribution of race within the study sample was an additional factor that was predicted from the national norms. For example, 91% of physical therapists are White, 1.9% are Hispanic or Latino, and 1.5% are African American or Black (APTA, 2004). The remaining 5.6% of physical therapists chose not to identify their race on any licensure or APTA documentation (APTA, 2004).

The average age of the DPT sample population varied, based on a multitude of factors such as the varying backgrounds of students upon entering graduate studies (Richardson & King, 1998), socioeconomic factors (Heller, 1997), life cycle, second or third career choices, industry recognition of educational pursuits, and workforce imposed competition (Epper, 1997). Additionally, the sample was drawn from the outpatient clinical setting as the majority of clinical practice conducted by the physical therapy profession is in the outpatient setting. The APTA states that 50% of clinicians practice in the outpatient setting, as compared to the next highest setting, the acute care hospital, in which 10% of the practice population work (APTA, 2004).

The proposed sample size consisted of 40 DPT clinicians, stratified into 10 groups of four clinicians. The proposed focus group size was variable, because reputable outpatient facilities greatly range in size of staff from a sole practitioner to 10 person staffed clinics. Facilities with less than three practitioners were not considered for entrance into this study because of the decreased likelihood of more than one DPT being employed.

Procedures

Referring back to Figure 3.1, the Phase 1 of the methodological design as an organizing feature, in order to gather nominees for the identification of the expert clinicians, a letter was sent to outpatient facilities, specifically to their department directors and individual clinicians in Connecticut, Massachusetts, New York, New Jersey, and Rhode Island (see Appendix A). Thirty-five outpatient departments per state were randomly selected and received these letters regarding expert nominee identification. The criterion was outlined

and responses gathered via e-mail, facsimile, or a postage-paid, preaddressed postcard. Frequency of nomination of an expert was not essential, but the gathering of actual responses from as many clinicians as possible was the objective. The nominees were selected by verification through the certification sections of the APTA, the credentialing registration of advanced work, and the satisfaction of the previously stated inclusion criteria.

To increase “credibility” (Patton, 1990, p. 504) of the choice of experts to be interviewed, the expert clinician were asked to discuss, during the interview, examples of referrals for evaluation and treatment of complex patients received within the last year (Jensen et al., 2000, p. 31). In addition, a two-year history of the expert clinician’s participation in professional development courses, whether teaching or attending, and the location of the educating institution, whether regional or national, were discussed during the interview. Participation in applied research projects would bolster the clinician’s expert status but was not a requirement. These validation components were included in the study, because the scope of this research does not include direct observation of clinical practice. Therefore, knowledge of expert patient handling, the demonstration of the best practice philosophy and the positive treatment outcomes must be acquired by indirect means (Girden, 2001).

A semistructured interview was requested from the selected experts via a letter explaining the reason and details of the study (see Appendix B). A follow-up phone call or e-mail was completed in an attempt to legitimize the interview request and to establish an interview date and time. The semistructured interview was conducted by this researcher in the location convenient for the selected expert. The results of these interviews identified the

critical incidents that the experts recognize as significant for mastery of the levels of professional growth from the novice level to the competent level and potentially beyond. The interviews provided the data for continual comparison of the initially identified themes, potential critical incidents, and the range of information for the chi-square comparison of the two groups. To decrease “researcher bias” (Patton, 1990, p. 507), the responses gathered during the interview, the interview text, was given to the selected expert subjects for “corroboration” (Patton, 1990, p. 510) of the captured comments. This procedure was followed in order to establish that the interview responses reflect the true perspective of the expert subjects. Corrections, additions, and deletions were made to the text according to the directions of the interviewee.

The results of the semistructured interviews were organized into developing themes and critical incidents for the study using the Q methodology (the Q sort). To improve the reliability of this study, research assistance was requested from another individual clinician with similar experiences to this researcher, and the individual was asked to organize and code 10% of the semistructured interview responses. Inter-rater reliability (Patton, 1990) will be examined by (a) similarities in thematic and critical incident categorizations, (b) consistencies in coding of the responses with the primary researcher, and (c) comparisons of the context and complexity of the lived experiences given by the experts within the semistructured interview (Patton, 2002). “Coding agreement” (Patton, 1990, p. 510) and paired thinking about the context specificity of this body of research added to the integrity of this study, and increase the rigor of the data collection and sorting technique (Patton, 2002, p. 553).

Required credentials and experience for the individual clinician providing the research assistance included (a) a physical therapy licensure for a minimum of 17 years, (b) a minimum of 17 years of treatment experience, the last 25% within an outpatient setting, (c) a minimum of 10 years supervisory experience within the outpatient setting, (d) active engagement in the APTA via membership and regular conference attendance, (e) APTA Health Administration and Policy section membership, (f) an awareness of the current issues in physical therapy regarding professional development, (g) previous research or data collection experience, and (h) a willingness to become competent in using the qualitative program used for this study.

As represented in Phase 2 of the methodological design, the responses of the experts were validated prior to the performance of the focus group interview process with the newly identified DPT population. From these themes and critical incidents, the comments were prioritized and synthesized to form the framework for the set of focus group questions, which were intended to gather answers to the major research question, and the written survey, which was administered after the focus group interview in order to isolate critical incidents instrumental to the growth of the new DPT clinician (see Appendix C).

The validation was conducted by administering a focus group interview format and by completing the survey. A panel of five local experts and five local DPT clinicians who have achieved competence were the pilot subjects (Creswell, 2003). The panel reviewed and scrutinized the developed focus group questions for clarity in intent, ambiguity, and logical sequence. The panel also completed the survey; assessed the survey for clarity of

terminology, meaning and intent; and commented upon the priority and significance of the critical incidents noting any experiential gaps in practice facilitation (Creswell, 2003).

The state chapters of the APTA, the state departments of health and their equivalents, and the state licensing boards publish the names of clinicians. Demographic information related to physical therapist educational level and location of employment is available to APTA members. A letter was sent to 35 randomly selected outpatient facilities per state included in this study that have hired doctorally prepared clinicians with five years or less practice experience (see Appendix D; Benner, 2001). This letter requested participation in the study and placement of this researcher within the annual in-service schedule, which was the chosen mechanism for conducting the focus group interviews. Placement within the in-service schedule facilitated focus group attendance and maximized inclusion without encroachment on the paid and personal time of the individual subjects. Letters to individual clinicians were sent to explain voluntary participation in the study, the research study and its components, and the time commitment for participation (see Appendix E).

During Phase 3 of the methodological design, focus groups was organized according to the facility locations and the number of clinicians staffing each facility. Per the correction and clarification from the validation panel, the focus group, consisting of the new DPT subjects, completed the questionnaire survey and then participated in the discussion. The focus group questions were open-ended based upon critical incidents identified by the expert subjects and validation panel.

To validate the data collected within the focus group and to decrease the researcher bias, Morgan (1997) discusses “asking a final question that has participants state [or restate] what they think the most important elements of the discussion has been” (p. 62). The bias of the researcher’s analysis of the participant intentions about salient points being important rather than interesting was addressed using this procedure. Ending the focus group interview with focused questions in order to validate the process introduces the “funnel strategy” (Morgan, 1997, p. 41) and allows the researcher to collect analyzable data. In addition, two of the focus group members randomly selected prior to the interview process was asked to read the text from the focus group interview itself to reduce researcher bias.

The results of the focus group interviews were organized into developing themes and critical incidents for the study using the Q sort. To address internal validity, research assistance was again garnered from the previously identified individual clinician. This individual organized and sorted data from 10% of the focus groups. This parallel “discovery in the material” (Morgan, 1997, p. 61) additionally provided a practical perspective of whether to code according to noted individual responses within the group or to “code by group response” (Morgan, 1997, p. 60).

Instrumentation

The instrumentation for this study consisted of the semistructured individual interviews of the expert sample, focus group interview of the DPT sample, and the questionnaire, derived from the critical incidents and sorted in a relevant format (see

Appendix C; Czaja & Blair, 1996). The themes and critical incidents derived from the semistructured interview process were identified by the expert subjects.

The format of the semistructured interview was the “standardized open ended-format” (Patton, 1990, p. 284). Goals achieved by using this format include the reduction of researcher bias and the ability to determine and assess the interviewee response during the major task of qualitative data analysis. Patton (1990) discusses that standardized questions avail “inspection by decision makers and information seekers” (p. 285), increase the reliability among interviewers, and potentially reduce the time of the interview by remaining focused and directed.

A limitation of this format is the potential lack of pursuit of unanticipated topics or the ability to discuss exclusive events. Patton (1990) suggests that a combination of the “informal conversational interview” (p. 288) utilized with the standardized open-ended format as a strategy to broaden the information collected. Questions may be posed and influenced by “the immediate context of the interview...and the natural course of the questioning” (Patton, 1990, p. 288).

The integrity of the interview questions included specific components as a means of gathering the critical incidents and the time frame of their occurrences, in addition to the surrounding context of the experiences of the expert. The components of the questions included experience and behavior descriptions, values, opinions, attitudes, knowledge, stimuli, time frames, and demographic characteristics. Experience and behavior questions

addressed the actual activities and qualities of performance in which the expert has engaged. Additionally, values and opinions questions addressed the “cognitive and interpretive” (Patton, 1990, p. 291) strategies that the interviewee utilizes in general thinking. Attitudinal questions explored the implicit notion behind a response that is tacit or generally unspoken and differs from the explicit values or opinions response. Knowledge questions addressed the depth and breadth of knowledge of the expert concerning a particular treatment area or realm of scientific evidence. Stimuli questions address the experiential exposure of the expert discussing the senses elicited in response to a particular question (Patton, 1990, p. 292). Finally, time frame and demographic questions generated factual information by their innate nature and framed the interview responses into their identified themes and critical incidences.

The format of the focus group interview for the new DPT clinicians allowed for richness of commentary “as people consider their own views in the context of the views of others” (Patton, 1990, p. 335). Patton (1990) suggests that the interview lasts approximately one and a half to two hours in duration. A crucial consideration in this study is the time constraints of the context of the interview and the acceptable length of time for an in-service at each particular facility. Therefore, within this study, the potential time frame for the focus group interview was a maximum of one and a half hours. The incentives for conducting a focus group interview included the ability to vary the size of the focus groups dependent upon location, the number of new DPT subjects available for the process, and the ability to determine and assess consensus or disagreement. By the inherent nature of the process, the participants “provide checks and balances on each other that weed out false and extreme views” (Patton, 1990, p. 336).

Limitations to this approach include (a) the potential limitation in participant response due to the time frame and number of people within a focus group interview, (b) the inability to fully capture all responses from the participants, and (c) the inability to control for unexpected interruptions within the conversation or for physical plant issues. A major limitation is the lack of confidentiality of the responses acquired from the individual participants due to the open forum of responses to the levels of questions (Patten, 1990).

As mentioned previously, the difficulty of fully capturing the data from the semi-structured interview and the focus group interview was a dilemma for comprehensive data collection. A tape recorder and a “contact summary sheet” (Miles & Huberman, 1994, p. 51) were the data collection tools of choice. The use of a tape recorder allowed this researcher to clearly use the questions outlined for both levels of interview. The purpose of the contact summary sheet was to capture observations made during the field visit in terms of main concepts articulated, document issues, and questions asked around the context of the interview and the interview situation and reflect upon the contact itself (Miles & Huberman, 1994).

The development of the questionnaire was based on the general themes or performance characteristics identified from the expert subject responses related to the research question and subquestions (see Appendix C; Czaja & Blair, 1996). The comments gathered from the expert clinicians during the semistructured interviews produced a set of items or statements. These statements consisted of the critical incidents that have been recalled and the contextual comments surrounding the valued experiences. These questions

will be listed within the questionnaire survey according to identified clusters, themes, or genres yet to be determined. The questionnaire was given to the validation panel. The entire panel also completed the questionnaire and offered a concrete critique of the instrument itself. The validation panel then participated in a focus group interview that was facilitated from identified themes, critical incidents, and contextual comments derived from the expert responses. The validation panel provided valuable comments from the focus interview. The statements from the validation panel focus group interview were compared to the sorted statements gathered from the semistructured interviews completed by the expert subjects. Corroboration of themes, incidents, and context provided the questions posed to facilitate the focus group interviews for the newly licensed DPT subjects.

Following the interview process, the newly licensed DPT subjects provided commentary around the focus group questions and completed the survey. The focus group statements were returned to the DPT subjects for Q sort rank ordering and prioritization. The factors identified following analysis were compared to the data generated from the expert portion of the sample. The results of the survey clarified and isolated the physical therapy experiences within each professional level of development.

Data Analysis

Descriptive statistics, such as frequency and percentages, were derived from the qualitative information (Creswell, 2003). As data was gathered from the semistructured and focus interview processes, the streamlining was conducted through Q Sort methodology. The data was arranged into major themes utilizing the Q methodology of theme clustering and

then streamlined into the categories or axes identified (Chinnis et al., 2001). As these statements were rank ordered in a conceptual fashion, significant themes emerged as “judgment of relationship strengths, valence and directionality” (Chinnis et al., 2001, p. 70) were determined. Critical incidents were identified and categorized in a similar manner but were related to specific occurrences in time and were based on the retrospective judgment of the subject. Chinnis, Summers, Doerr, Paulson, and Davis (2001) gave an example of a Q sort ranking scale (see Figure 3.3).

Strongly Disagree			Neutral					Strongly Agree		
-5	-4	-3	-2	-1	0	1	2	3	4	5

Figure 3.3. Q sort ranking scale example. As given by Chinnis et al., 2001.

Similarity of theme and ranking of a statement and the application of a weighted averaging, according to the identified theme, allowed the data to be placed into more distinct categories. The merging of the data reduced the volume of data and facilitate identification of critical incidents in a particular cluster, and potentially in a specific level of professional development.

A chi-square analysis of the expected critical incidents, responses from the expert clinicians, against the observed critical incidents of the new DPT subjects in relationship to a

particular stage of development was conducted. The qualitative data collected from the “field study” (Green & Salkind, 2003, p. 170) were separated from the quantitative perspective due to the nature of major theme development (Creswell, 2003), but the quantitative data bolstered the grounded theory potentially developed from this study.

Study Limitations

Limitations were determined to stem from the research methodology. First, the sample population was limited to clinicians gathered from Connecticut, Massachusetts, New York, New Jersey, and Rhode Island. Secondly, the study setting was the outpatient physical therapy setting. This setting represents 50% of the total practice arena for U.S. physical therapists (APTA, 2004). Thirdly, the examination of the stages of professional development was limited to the doctorate prepared clinician within the first five years of practice.

The assumption was that the clinician at the five-year point will not have been able to achieve the skills beyond the proficient level and therefore be unable to comment beyond the assumed parameter. Upon further review of Flanagan’s description of the critical incidents, he suggests that the ideal time frame of the subject’s recall of critical behaviors or events is up to one year. The framework of this study requested the subjects to recall beyond the one-year point, the maximum being up to seven years for the comments gathered from the expert clinicians.

CHAPTER 4: RESULTS

The purpose of this study was to gather the characteristics of physical therapist practice and apply the structure of the Benner's (2001) stages of professional development to the new DPT performance. The context of the formation of the major and subquestions, the elevation of the significance of this topic, and subsequently, the reason for this research was to validate Benner's five levels of professional development for physical therapy. These five levels would then be a scaffold to frame and contribute to the explanation of the evolution that has taken place within the profession, the expectations associated with autonomous practice, and the magnitude of change in the practice environment. The research results of this study validated the five levels of professional development according to the Benner's stages as a frame work through the data collected via semistructured interviews that have been sorted into identified themes. These themes and their descriptive results have been strengthened through data triangulation using two other research methods: questionnaire completion and chi-square analysis. The complexity of the design (mixed methods with "concurrent data triangulation;" Creswell, 2003, p.217), was warranted in order to garner valid data from the physical therapy field, to dispel the notation of less than substantial proof of the value of qualitative data, and to allow the entire study to weather challenges from other competing points of view and from studies of varying methodological designs.

This chapter is organized into four parts in terms of the major research question and subquestions systematically being answered by the results. The framework of the chapter is

directly correlated to the methodological design, as shown in Figure 4.1. The data results will be presented within the design explanation due to the complexity of the research process and the nature of organizing and comparing the information garnered from a mixed method study. Additionally, a concentration of the data presented per the methodological design facilitates examination of the data for replication of the research and allows comparison and contrast of information gathered. This chapter is organized and presented according to the methodological design Phases 1 to 4. Each phase represented a different segment in the progression of the research process as conducted by this researcher. The outlay of the research procedure and results in this manner will assist in the understanding the unique mixed methods process of gathering and integrating this data so that it will be useful and meaningful.

Methodological Design

Figure 4.1 is representative of the actual methodological design as conducted. The design diagram outlines the four Phases of the research. As a visual aid to the structure of the research procedure, the diagram demonstrates the complexity of the design and the stepwise fashion of the study's implementation. Phases 1, 2, and most of 3 concentrate on the qualitative components of the mixed methods design. The remaining two methods, survey completion and analysis and chi-square analysis, occurred in Phases 3 and 4 respectively.

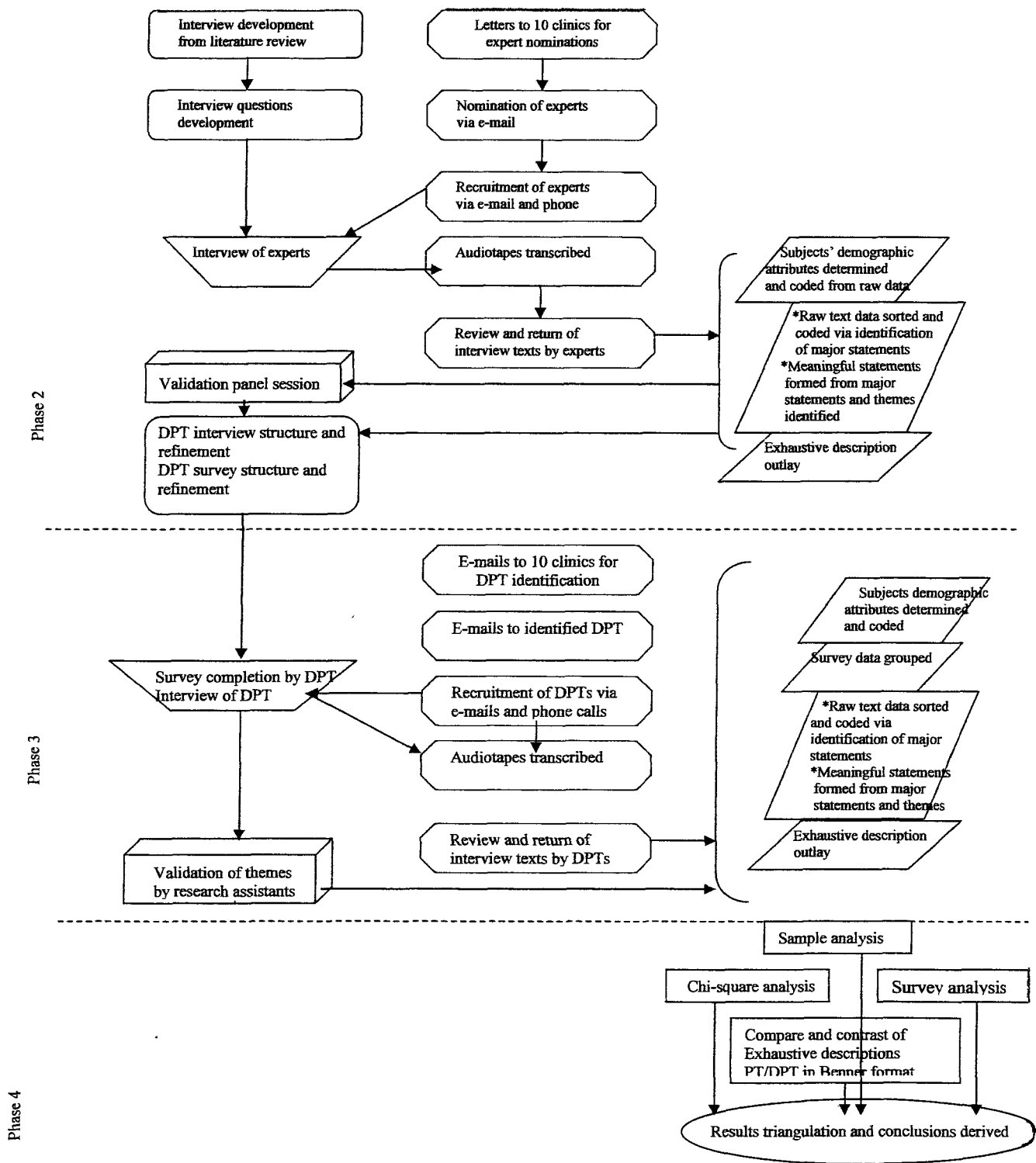


Figure 4.1 Methodological design showing Phases 1-4

Figure 4.1 is divided into three columns vertically in addition to the horizontal delineation showing the four distinct phases of the research process. In the data collection vertical column, interview, survey development, and primary data collection activities were noted first (left column). This column outlays the order in which the research process showed the creation of the interview and survey tools.

The study procedures (center column), presented the groundwork that was done at each phase, such as recruitment of subjects, in order to move the research physically forward. The phases and defined steps within each phase outlined in this column were prerequisite tasks necessary to the data sorting and analysis (right column) but were conducted mostly in parallel with the data collection process (left column).

The data analysis (right column) spoke to the data sort, data analysis, and acquisition of results from the three methods. As stated previously, the qualitative portion of this study was disproportionately larger in devotion of research procedures and analysis time than that of the survey or chi-square. The significance of this column will be grasped with the upcoming review of the data's figures and diagrams. The forms of data, the qualitative component expressed via the exhaustive description and secondly, the major work through the data triangulation from the chi-square and survey results were significant to the strength of the study. Additionally, the multiple forms of data formed the basis for the comparison and contrast of the results that was achieved. A major justification of the mixed methods results gave a perspective of positive and/or negative findings.

Phase 1

The steps of Phase 1 included:

- Data collection:
 - Justification of the demographic region the nation to place the study
 - Acquisition of the sample population through nomination,
 - Construction of the expert semistructured interview questions based on inquiry into the literature on question development.
- Study Procedures:
 - Nomination and recruitment of expert subjects

Data collection

Demographic region of study. The decision to focus this entire body of research in the outpatient setting was based on the national data presented by the APTA (2002) that poignantly discussed the fact that 60%, the majority of physical therapists, practice in the outpatient setting. The rationale for the choice of the tristate area (Connecticut, New Jersey, and New York), plus Massachusetts and Rhode Island, was based on the assumption that the north east region would produce qualities of answers that would demonstrate commonalities in terms of an assumed regional philosophy of treatment, generated practice environment, regional culture, and political attitudes toward the emergence of the profession.

Interview question structure. The semistructured interview questions were constructed simultaneously while the initial contacts were being made with the 10 clinics. The interview questions were derived from the discovery of the context of physical therapy

history, the evolution of events, and the review of the long standing arguments in legislation for and against the autonomous practice of the physical therapist. The substantive data would provide the answer to the major question and subquestions being researched. The data collected had to be focused yet broad enough to speak to the lived experiences of the expert subjects and also to provide a full perspective of Benner's stage (2001) characteristics of physical therapist practice.

The background research conducted regarding appropriate methodology included review of Benner's research (2001); examination of other peer reviewed literature that emerged from education, psychology, medicine and business; and application of the Dreyfus and Dreyfus (1986) model of skill acquisition to physical therapists' areas of performance evaluation and stages of professional development.

The semistructured interview questions were based on how to facilitate the recall of significant events pertaining to the five levels of professional development, as described by Benner (2001), in terms of the physical therapist experience. The philosophy of the line of research produced ranged from ethnography to grounded theory to phenomenology, in which the use of recall of particular events was the key to how the research process transpired. The critical incidents, or recall of events, was a term that had not been named by Dreyfus and Dreyfus as being the actual method of data collection during the varying types of interviews. However, the review of the literature regarding qualitative research related to performance and evaluation clearly uncovered that the process of recalling events, discussing the lived experience, etc. was in actuality the strategy termed the critical incident as explained by Flanagan (1956).

The semistructured interview questions were based, therefore, on how to facilitate the recall of significant events pertaining to the five levels of professional development as described by Benner (2001). The interview questions, as displayed in Appendix J, outlined a course of discussion about each subject's physical therapy experiences. They also included the demographics of the subject, which related to the sampling strategy of purposive focus. The subjects' demographics also spoke to the characteristics of the Benner (2001) five levels of professional development offering agreement with the Benner (2001) philosophy. Additionally, the interview discourse allowed subjects to speak freely as to the existence of the Benner stages within physical therapy, approach what the descriptors were within their lived experiences, and tackle what had happened in the profession, distinctly speaking in defense of the gains that have been achieved.

Study procedures

Nomination and recruitment of expert subjects. Letters were sent via regular mail to different clinics. Since this researcher did not receive any responses e-mail was the next recruitment strategy conducted. Seventy percent of Connecticut e-mails responded to the request for expert nominations, and in the remaining states only 40% responded. The demographics of the subjects garnered for the study are as outlined in Table 4.1. The demographic information including age, gender, race, education data, work location and length of experience were collected in order to provide an appropriate profile of the study participants. This data offered a range of information for comparison to APTA (2004) norms and the potential for comparison to similar studies. The sampling results interestingly indicated that the majority of experts were trained in

Connecticut or Massachusetts; there was an even smaller representation from the south, the south west and west coast physical therapy programs. The APTA (2004) national norms of race and gender as part of the subject mix descriptions were representative as noted in Table 4.1.

Phase 2

Phase 2 of the methodological design displayed the sequence of events from:

- Data collection:
 - Expert interviews
- Study Procedures:
 - Transcription of audio taped interviews to text
 - Review and return of the raw interview text by the expert subjects
- Data Sorting & Analysis:
 - Sorting of the expert demographics
 - Coding and the identification of the major and meaningful statement, which were then grouped into identified themes
 - Formation exhaustive descriptions
- Further data collection:
 - Validation panel, which provided description of the meeting construct and recommendations
 - Survey development and refinement, using the expert data in the creation of the new DPT subject survey, and refining it per suggestion of the validation panel

Table 4.1

Demographics of Expert Subjects

Subject	Gender	Age	Race	Graduation Year	Institution Attended for PT Degree	Entry-Level Degree	Practice State	Years of Practice	% Practice Years in Outpatient
1	M	32	C	2000	Sacred Heart University Fairfield, CT	MS	NY	7	100
2	M	36	C	2000	University of CT Storrs, CT	MS	CT	7	100
3	M	52	C	1987	University of MA Lowell, MA	BS	CT	20	70
4	F	47	C	1982	Quinnipiac University Hamden, CT	BS	RI	25	80
5	F	48	C	1992	Northern Arizona University Tucson AZ	MS	CT	15	100
6	F	48	C	1982	Northeastern University Boston, MA	BS	MA	25	60

(continued)

Table 4.1

Demographics of Expert Subjects

Subject	Gender	Age	Race	Graduation Year	Institution Attended for PT Degree	Entry-Level Degree	Practice State	Years of Practice	% Practice Years in Outpatient
7	F	42	C	1988	Northeastern University Boston, MA	BS	MA	19	21
8	M	36	C	1998	University of St. Augustine St. Augustine, FL	MS	CT	9	100
9	M	48	C	1998	University of California San Francisco, CA	BS	NJ	19	100
10	F	50	C	1979	Boston University Boston, MA	BS	RI	28	32
11	M	50	C	1983	New York University New York, NY	BS	NY	24	29
12	M	28	C	2001	University of Medicine and Dentistry, Newark, NJ	MS	NJ	6	100

Note. M = Male. F = Female. C = Caucasian.

Data collection

Expert interviews. The data for the expert subjects were collected via the semistructured interview. The interview sessions ranged from 35 to 75 minutes. The locations of the interviews were arranged at the convenience of the subjects. The majority of interviews were conducted during the workday, in the private office of the expert, with near constant interruptions related to patient diagnosis results and the organization's administration. Two subjects were interviewed outside of the workday and clinic setting. All interview sessions consisted of the semi-structured interview only. To reduce researcher bias, further discussion about the research process was kept to a minimum, especially the context of the subjects' working environments. The Appendix H contains a sample of the field notes for each of the cases and explains the context surrounding the actual interview process.

Study procedures

Interview transcription to text with review and return by expert subjects.

The semistructured interview taped content was immediately transcribed verbatim without syntax correction. Once each text was completed, the individual documents were e-mailed to each subject for review and validation of the interview comments, otherwise known as the raw qualitative data. The return of the texts from the expert subjects yielded comments regarding effectiveness; corrections, including syntax; and validation of the texts from the subjects themselves. The documents were then imported into the NVivo 7 qualitative analysis program for data sorting and analysis. This researcher selected the NVivo 7 program, because it was cost efficient, user friendly, and extremely functional. The NVivo 7 utilizes folders to sort and analyze the data.

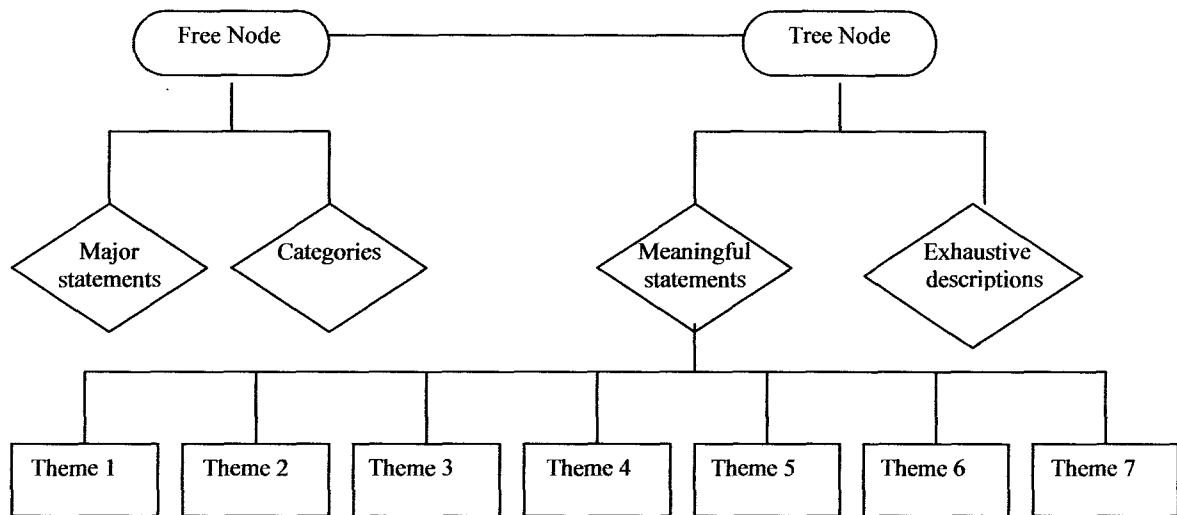


Figure 4.2. Coding diagram showing the NVivo data sorting and coding sequence.

Data sorting and analysis

Demographics of experts. The entire data sort and data analysis processes were conducted using the NVivo 7 qualitative computer program as a means of conducting the phenomenological research section of this study. To start, the demographic data for each of the subjects extracted from the interview responses were placed in the *document* folder designated by sample. The demographic attributes of each subject were entered into the *attributes* folder, which provided the sampling results for the expert subjects. Delineation of the subject characteristics in a grid format will facilitate cross-referencing about the participants in this study in both groups (see Tables 4.1 and 4.9). The purposeful sample for

the expert subjects consisted of 12 expert physical therapists. The demographics of the expert subjects are outlined in Table 4.1.

The demographic items that were chosen and coded as significant were age gender, race graduation year, institution attended for physical therapy program training, entry level degree, practice state, years in practice, years in outpatient practice, and percentage of total years in practice devoted to the outpatient setting. The categories selected were based on similar items previously delineated and specified by both the APTA national professional statistics and the APTA “2004 Fact Sheet, Physical Therapist Education” (2004). Distinctive conclusions about the physical therapy population were made for the experts as well as new DPT subjects from the examination of the demographics in the Phase 3 of this study per the methodological design.

Coding of data and identification of major and meaningful statements. This segment of the chapter first summarizes the steps involved in the coding of the data using Figure 4.2 as a tool to understand the strategy of the NVivo 7 program. Subsequent figures and diagrams explain how the research was transferred from data to the meaningful statements, and ultimately, the exhaustive description of the physical therapy characteristics of professional practice. This chapter segment reviews, from the general to the more detailed, each stage using examples from the data with reference to the steps involved, as outlined simply in Figure 4.2.

The NVivo 7 program allowed major statements to be extracted from the full texts and placed in a “purposive” (Richards, 2006, p. 71) arrangement according to study participant in the area of the program called the *free node* folder. The major statements were

clustered or sorted into the major *categories* folder where a frequency count of similar comments could be established. This *categories* folder, holding major statements extracted from the full texts, was then transferred to the *tree node* folder.

The process of transfer to the *tree node* folder involved placing the major statements into preliminary groupings. These groupings were progressively organized and consolidated into meaningful statements based upon similarity of wording, context, explanation of a physical therapy practice action, or process of critical thinking and reasoning. The coding mechanism ability of the NVivo 7 program allowed this researcher to calculate the repetition of comments per category within the *categories* folder, or by similarity of context. As a result, identification, systematic validation, and tracking of the comments saturation point was achieved.

The coded data, or meaningful statements, were then arranged in priority order by the frequency volume with the ability to track the source of a particular meaningful statement. The arrangement of the coded data into priority order from the disorganized loose grouping was then placed in a systematic listing using the NVivo *categories* folder. This formed the content to recognize and develop the themes, which were (a) attitude, (b) interaction, (c) performance, (d) resources, (e) measurement, (f) productivity, and (g) motivation. Ultimately, the accuracy in organizing and categorizing the meaningful statements and the development of the theme facilitated a clear process of writing the exhaustive descriptions, which are an aggregate of the themes. The discussion, explanations, and diagrams are the content of the exhaustive descriptions.

Figure 4.2 outlines the NVivo 7 process and provides an example of the loaded data in the system at *free* and *tree node* stages of the data sorting procedure. Figure 4.3 is representative of the NVivo 7 systems coding, prioritizing according to *categories* folder context. The major statements as they were exactly stated by subjects were in the audio taped interview and translated to text. The system allows the research to refer back to the actual location of the comment with the text with a one-step inquiry. Table 4.2 shows the frequency count of the major statements and the exact subject from whom these statements were drawn. Figure 4.4 indicates the meaningful statement formulated from the data provided with the frequency of the comment context noted and the number of subjects who referred to this category within the semistructured interview. This example demonstrates the data sorting process of the theme *measurement*. One of the issues or components discussed by the subjects during the development of the *measurement* theme was self-assessment. Figure 4.3 shows the major statements as they have been lifted from the text data and grouped into a category termed *self* for self-assessment. The measurement theme was formed by the integration of these categories. The grid indicates which subject spoke these terms; for example, DPT Subject 211 gave the first comment, and this comment was less than one percent (0.61%) of the entire body of data collected.

<p>Major Statements underpinning selection of “SELF” Category:</p> <p><Documents\DPT\211> - § 1 reference coded [0.61% Coverage]</p> <p>Reference 1 - 0.61% Coverage</p> <p>Me, self! It is where I am comfortable and feel. 80% self and you do it have other clinicians, someone has got to help you.</p>

<Documents\PT\104> - § 1 reference coded [0.25% Coverage]

Reference 1 - 0.25% Coverage

Well, I think you can look at self assessment,

<Documents\PT\105> - § 2 references coded [1.63% Coverage]

Reference 1 - 0.76% Coverage

Could I measure this way if I introduced this as a tool? Had to have people on an annual basis answer my questions; Sal Brooks' tool. A professional survey for all practicing clinicians!

Absolutely! I think it would be good if we could humble ourselves and sit down and deeply reflect this and go that route.

Reference 2 - 0.87% Coverage

So what about the person who would not answer honestly? What do I do with them? Or do you think people would answer honestly if they are in the profession? Or is it just character?

It's character! And different people are going to answer differently. Some people have so much confidence in themselves and they think they're on top of everything.

<Documents\PT\106> - § 1 reference coded [0.31% Coverage]

Reference 1 - 0.31% Coverage

I think a lot of this is probably self-awareness more than anything.

<Documents\PT\107> - § 1 reference coded [0.29% Coverage]

Reference 1 - 0.29% Coverage

I think part of it is looking in at yourself and figuring out.

<Documents\PT\109> - § 1 reference coded [1.27% Coverage]

Reference 1 - 1.27% Coverage

Some people are in it because they care about people and quality of life; they want to make a difference. They like what they do. It depends on where the therapist is coming from. I am old fashioned, patriotic and want to serve. I like the comradery and helping people so that they can complete the mission.

<Documents\PT\110> - § 1 reference coded [0.85% Coverage]

Reference 1 - 0.85% Coverage

First of all you should know yourself. I may not know the specific levels but if you ask me to come up with a description but not necessarily know where I fall. I think that that is part of job performance evaluation.

<Documents\PT\111> - § 1 reference coded [0.16% Coverage]

Reference 1 - 0.16% Coverage

The idea of self-assessment is important in there.

<Documents\PT\112> - § 1 reference coded [2.86% Coverage]

Reference 1 - 2.86% Coverage

I mean in terms of, if a clinician want to improve themselves, if they want to be the best clinician they could be or if they are curious to see how they compare to others then maybe people would want to know. Am I competent, proficient. As I was saying before if there was only novice and expert, there is a lot of grey area between. I don't think I am expert, but I do not think that I am a novice either.

Figure 4.3. Grouping of major statement discussing self-assessment contributing to the components of the measurement theme. This researcher's comments are in italics.

In Table 4.2, the major statements concerning self-assessment, coded as *self*, from the expert subjects' text data were referenced 10 times from nine sources. These nine sources were the nine expert subjects who discussed self-assessment as a component or issue of measurement. The NVivo 7 system allows the source documents, or the text interviews, to be accessed immediately. The other components, such as *peers* and *annual review*, were the additional major statements sorted. The final figure explaining theme development, Figure 4.4, presents the meaningful statement derived from the interpretation of the direct comments shown in Figure 4.3.

Table 4.3 presents all of the meaningful statements data for the expert subjects. The sorting of the data and the subsequent analysis took shape in the following report of the data per the outlined research procedures. The outcome of the interviews in their analyzed form is as follows with an associated statistical count of the comments made by each subject (see numbers in parentheses, i.e. sources, number of references).

Table 4.2

Categories and Frequency Count of Major Statements Component to Measurement Theme

Name	Sources	References	Created	Modified
Self	9	10	04/28/2007	05/26/2007
Peers	5	8	04/28/2007	05/26/2007
Annual Review	5	6	04/28/2007	05/26/2007
Patient Satisfaction	4	4	04/28/2007	05/26/2007
Governing Body	5	7	04/28/2007	05/26/2007
How-to tool	8	14	04/28/2007	05/26/2007
No Measure	1	2	05/26/2007	05/26/2007

The data were analyzed following the same procedure as in Figure 4.3, Table 4.4, and Figure 4.4. The example was specific to the self-assessment, *self*, that was one of the seven categories component to the measurement theme. The meaningful statement example was the interpretation of the major statements presented. Theme development was accomplished by the listing the meaningful statements interpreted from the data, where the source and

frequency count were noted as in the example of Figure 4.4 for each statement. The exhaustive descriptions are an aggregate of the developed themes.

1. Deciding on what level you are in should be by self- assessment, a quality of one's character (9,10)

Figure 4.4. Meaningful statement of “SELF” as it appears in the measurement theme. The number of sources and frequency count of comments used to put this statement together are presented at the end of the statement in parentheses.

Table 4.3

Expert Meaningful Statements by Professional Development Level and Theme

Theme: Attitude	
Level: Novice	
1.	The clinician does not know the patient (6,6)
2.	The clinician is insecure about his clinical decisions (4,5)
3.	The novice is defensive about his decisions and practices when questioned for any reason (3,5)
4.	The patients' comments are not considered useful (3,3)
5.	The novices have no confidence in themselves as therapists (2,2)
Level: Advanced Beginner	
1.	The clinician has a false sense of security (4,5)
2.	The clinician is secure in asking questions (4,4)
3.	The clinician does not know why the patient may not come back (2,2)
4.	The patient is not the focus of the clinician's work (1,2)
Level: Competent	
1.	The patient is the focus of the interaction (6,9)
2.	The clinician looks confident and is confident (5,5)
3.	The clinician knows who the patient is (4,4)
4.	The patients' comments are meaningful to the clinician (4,4)
5.	The clinicians' information seeking behavior is integral to his working existence (4,4)
Level: Proficient	

1.	The clinician knows the patient (3,4)
2.	The patient's comments are meaningful (3,3)
3.	The clinician has confidence in his actions and decision (3,3)
Level: Expert	
1.	The clinician knows the patient (10,12)
2.	The patient is the focus of the treatment (8,14)
3.	Patient comments are meaningful (6,6)
Theme: Interaction	
Level: Novice	
1.	Interaction with others is nonexistent and minimal with peers (2,2)
Level: Advanced Beginner	
1.	Interaction with physicians is a daunting task (2,3)
Level: Competent	
1.	Interaction with the physician requires less effort (2,2)
2.	Interaction with the team is not a problem (2,2)
Level: Proficient	
1.	Interaction means meeting the clinicians at his level (2,3)
2.	The clinician is a clinical resource for peers and subordinates (2,2)
Level: Expert	
1.	The clinician gladly shares knowledge with all levels via teaching within the treatment context (6,8)
2.	The clinician openly communicates with team members to build rapport around patient care (6,7)
Theme: Performance	
Level: Novice	
1.	The novice has all his textbook information at the forefront of his thinking (6,6)
2.	The novice has the knowledge but can't integrate the pieces (5,7)
3.	Unable to focus in the component of knowledge to help the patient (5,6)
4.	Diagnosis achieved through trial and error (5,6)
5.	The clinician did not dialogue with the patient (5,6)
6.	Lack of insight in positioning in order to engage the patient and treat efficiently (4,6)
7.	The clinicians lacks the ability to hear what the patient was saying (4,4)
Level: Advanced Beginner	
1.	The clinician rarely deviates from the treatment focus he established (5,5)
2.	The clinician has learned to look for but is not able to integrate the puzzle pieces to the patient problem (4,5)
3.	The clinician engages in a dialogue with the patient (4,4)
4.	The clinician over objectifies the problem in order to achieve a diagnosis (2,3)
5.	The clinician possesses the body of knowledge for the noncomplex patient is

comprehensive and applicable (2,3)

Level: Competent

1. The clinician is able to bring the patient to achieve the established goals of treatment (7,11)
 2. The clinician is able to see all facets of the patient problem and produce an accurate diagnosis (6,7)
 3. The clinician provides a good sequence to the treatment session (4,4)
 4. The clinician is able to progress the patient further at a slow pace (3,5)
-

Level: Proficient

1. The clinician is able to think critically and derive solutions (5,5)
 2. The treatment focus is modified according to the patient's changing status (4,4)
 3. The clinician controls and uses the dialogue with the patient (4,4)
 4. Diagnosis is a focused process on the whole patient (3,4)
-

Level: Expert

1. The simple diagnosis is not acceptable as a result of a focused examination (10,15)
 2. The majority of the dialogue should be coming from the patient (8,13)
 3. The expert is able to problem solve quickly (8,13)
 4. The expert knows exactly where his hands are and what he is doing (8,8)
 5. The expert actively listen to the patient (7,8)
-

Theme: Resources

Level: Novice

1. The novice expects assistance from supervisors (3,3)
-

Level: Advanced Beginner

1. The clinician only asks for assistance from knowledgeable peers (3,6)
 2. Knowledge acquired at continuing education courses is directly applied (3,4)
-

Level: Competent

2. Continuing education is the most valued resource (6,6)
-

Level: Proficient

1. The clinician values the knowledge of his peers (3,5)
 2. Continuing education provides a resource to review the evidence (2,2)
-

Level: Expert

1. Continuing education provides the clinician's expertise (4,4)
 2. Inquiry into the evidence through various resources is required for learning (3,3)
 3. Dialogue with colleagues is valuable (2,4)
-

Theme: Measurement

Level: All phases

1. The clinician decides on what level he is by self-assessment, a quality of one's character (9,10)
 2. The clinician should have concrete objective guidelines about one's strengths and weaknesses (8,14)
 3. The individual moves through each level of professional development at his
-

own pace, therefore, there is no time frame (6,9)

4. Knowledgeable colleagues will give the clinician you an honest response to where he/she stand (5,8)
 5. Governing bodies on the community or state level should come in, observe the clinician's performance, and offer feedback (5,7)
 6. It would be beneficial for the administration to recognize the clinician's work on an annual review basis (5,6)
 7. Clinicians believe that there is a possible time table for these levels (5,6)
 8. Ultimately the patient will tell the clinician how and where the patient stands (4,4)
-

Theme: Productivity

Level: All phases

1. Productivity has a negative connotation and is a bad thing, an inverse relationship to quality
 2. Productivity means how efficiently the clinician can return the patient to his previous level of function
 3. Being productive means going beyond what is required of the clinician in the general area but includes being able to make a contribution
-

Theme: Motivation

Level: All phases

1. Motivation is the clinician's internal desire and drive to learn
 2. Motivation is desire to do the job and figure out what the patient problems are.
 3. It is the job of the clinician to motivate the patient.
 4. Motivation pushes the clinician through the continuum of the professional levels
-

Note. Numbers in parentheses indicates the number of subjects who made the meaningful statement (sources) and the frequency counts of each statement (references).

Theme names, or labels, were representative of the stance uncovered by the coded data. This researcher was able to categorize the major statements by similarity of context and wording, and thus, sequentially consolidate these statements into prioritized meaningful statements. Interestingly, the major statements discussed possessed different descriptions for the five levels of professional development, except for the measurement, productivity, and motivation themes. These themes, by examination of the nature of the vocabulary, spanned

all five levels throughout which the characteristics were present or absent at the same level of intensity of professionalism, regardless of the level of professional development.

Exhaustive descriptions fundamental outlay. The meaningful statements drawn from the qualitative data were aggregated into the exhaustive descriptions. Each exhaustive description, except for those descriptions combined for the measurement, productivity, and motivation themes, were discussed and therefore, separated by levels of professional development per Benner (2001). The exhaustive descriptions as they were discussed and extracted from the data did not resemble the Benner (2001) construct because of the nature of the discussion from the expert subjects who spoke about their experiences. The expert subjects referenced and recognized the Benner (2001) construct but did not order by the structure; hence, the outlay of information according to the developed themes did not match the Benner construct. In the analysis of the exhaustive descriptions, the data were organized into the Benner construct as a process of further interpreting the data regarding the physical therapy profession and the defining characteristics that have been collected.

Table 4.4

Foundational Expert Exhaustive Descriptions by Professional Development Level and Theme

Exhaustive Description: Attitude

Level: Novice

The novice clinician is a student who is in his final clinical experience or is the early new graduate. This clinician does not know the essence of the patient he is working with in the immediate, or realize that he is blind to the patient. Even though he/she is present with the patient during the treatment interaction or dialogue, the patient's comments are not perceived as useful. The novice is unable to detect the personality of the patient or consider the effect of injury for this patient. The novice seeks out validation from a clinical instructor while still under the protection of clinical education. Once the physical therapist is no longer a student, he becomes very

quickly attuned to his shortcomings, hence a sense of insecurity in his/her clinical decision-making ensues. The novice is defensive about his clinical decisions and clinical practice when questioned by any clinician (peer, supervisor, physician) for any reason, even if the inquiry is meant to benefit the patient outcome. The novice clinician internally has no confidence in himself as a therapist.

Level: Advanced Beginner

The advanced beginner has gained experience with the field through repetition of a focus of patient diagnoses and types. To this end, the clinician develops a false sense of confidence in his knowledge base and area of practice. The clinician is more secure in asking questions of peers and superiors because the questions may be perceived as originating from someone who has acquired critical thinking skills because of the breadth of his experience. The clinician is more aware of the patient and is able to engage the patient sufficiently. In the event that the patient is dissatisfied, the advanced beginner is not fully aware of the patient personality and true issues to understand the patient/therapist disconnect and why the therapeutic relationship is discontinued. The patient is not the focus of the clinician's work. The therapist is focused on being correct and delivering care according to the scientific evidence rather than unique needs of the patient.

Level: Competent

The competent clinician has a directed concern for the patient. The clinician is aware that patient satisfaction is important and that the broad perspective of the patient must be captured. The competent clinician is able to establish a better patient/therapist relationship and engage more concretely with the patient. The clinician looks confident and is confident in his work to the point of potential overconfidence. Evident is the desire to learn and the goal of acquiring as much knowledge as possible. This open display of interest in inquiry and the supportive evidence for his therapist's clinical practice is detectable by patients and other clinicians. The interpretation of this display by patients and colleagues is open to the individual.

Level: Proficient

The proficient clinician easily develops a rapport with the patient. The desire to understand the personality of the patient in order to establish the patient's trust is of primary significance to the therapist. The patient's comments direct the therapist as to what exactly the patient's problem is and validates or disputes the conclusions that the clinician has already drawn from other portions of the examination. The clinician has complete confidence in his actions and decisions surrounding patient care and management.

Level: Expert

The expert clinician views the patient as primary within the treatment process over the sovereignty of the treating therapist. The clinician gains a solid rapport with the patient to find out what the real patient concerns are and it is very important. In order to educate the patient, the clinician knows the personality of the patient and directly understands and respects what the patient wants to know rather than what he needs to know. The expert clinician establishes the appropriate professional boundaries without offending the patient and is able to establish a trusting relationship with the patient so that all components vital to full recovery are

revealed. The clinician is able to empathize with the patient and invests time in making the patient feel equally invested in his treatment process.

Exhaustive Description: Interaction

Level: Novice

The novice clinician does not interact with other disciplines and speaks minimally with peers. A level of intimidation exists in association with interacting with other clinicians. The shortcomings of the novice will be detected by the established clinician.

Level: Advanced Beginner

Interaction with peers takes time and understanding of the practice environment. The clinician, through practice, has developed the appropriate skills to interact on all levels without difficulty. Treatment experience is being built and the advanced beginner has realized that he may disagree with the physician in terms of the medical diagnosis or course of treatment for his patient. Subsequently, the advanced beginner is able to communicate his disagreement and offer his/her differing view for serious consideration.

Level: Competent

The competent clinician finds interaction with physicians to be much more of a positive interchange, especially if the physical therapist has built a track record of successful patient outcomes. Interaction with coworkers of the same and other disciplines is a positive experience and potentially humbling as the clinician begins to appreciate the contributions of others. In the midst of these positive experiences, the competent clinician has learned that diplomacy is also essential in his interactions. Respect for each others' work is one of the many professional outcomes.

Level: Proficient

The proficient physical therapist is the person whom coworkers and other discipline clinicians come to for treatment advice and brainstorming. The proficient clinician views the role of being the resource as a positive reward. The responsibility of the proficient clinician is to be able to relate those seeking assistance at the level of the individual, peer or subordinate. These communication skills may or may not be in place.

Level: Expert

The expert gladly shares his knowledge about the patient with all of those involved in the care of a particular patient. The physician is perceived as more of a peer rather than a director of the patient's care; therefore, the interaction takes on a different quality. The expert openly communicates with all disciplines and staff. The expert actually provides the leadership that drives the philosophy of the practice environment. The quality of interchange the expert engages in with coworkers provides the construct of support and rapport that translates into the type of patient care delivered by team members and coworkers.

Exhaustive Description: Performance

Level: Novice

The novice clinician has amassed a tremendous amount of information that he is

constantly processing simultaneously when he is presented with a patient's unique problems. The clinician is unable to focus and use the component piece of information necessary to meet the needs of the patient without guidance. The novice once guided has difficulty integrating the information isolated to use in the patient care with the data collected about the patient during examination. Hence, the physical therapy diagnosis is achieved through trial and error. The novice speaks to the patient but lacks the skill of true dialogue. The novice thus ignores what the patient is saying and the value of the information that the patient can provide. This ignorance also translates into the mannerisms of the novice where he physically positions himself poorly so that he decreases the potential of engaging the patient and conducts the treatment inefficiently.

Level: Advanced Beginner

The advanced beginner has learned how to develop an appropriate treatment plan for his patient and implement it, but the clinician appears to stay rigidly within that established plan. Deviation from this focused process would mean that the clinician possessed the ability to integrate other components about the patient and account for these changes. The clinician at this level lacks the skill to integrate into the treatment process new information and significant changes in treatment strategy. One of the obstructions to integration and change is the over objectification that took place initially to arrive at the diagnosis and the foundational treatment approach. To change, modify or integrate would be a massive undertaking of test, retest conditions because the initial data collection process lacked focus and streamlining. The methodology of the advanced beginner allows him to function and provide comprehensive care for the less complex patient but examination, integration of data, and focusing in on an appropriate treatment approach for the more complex patient would be a daunting task because of the advanced clinician's lack of knowledge focus and lack of skill.

Level: Competent

The competent clinician is able to provide the appropriate intervention that will enable the patient to achieve the established goals of treatment. This level of clinician is able to integrate all facets of data collected, the personality of the patient, and the identification of actual patient problems thus to generate an accurate diagnosis. The clinician is able to conduct a fluid treatment session that sequences logically according to the patient. The patient outcome is positive and the patient returned to his previous level of function, but the restoration is achieved at a slower pace than that of the proficient or expert clinician.

Level: Proficient

The proficient clinician has the ability to problem solve effectively. The critical thinker is adept at finding the answers to his questions through inquiry into the research literature and considerable reflection upon his own experiences. The clinician is also starting to develop an intuitive process to his problem solving in which the evidence in research validates his intuitive actions. The treatment focuses on the patient's response to the intervention, both the immediate and the long-term, based on selective objective measures. The clinician uses the subject information gathered from the patient through comprehensive dialogue. The clinician at this stage is able to ask closed questions appropriately so that the process is "funneled"

toward completion with a level of credible persuasion. Thus, the patient does not detect that the conversion is ultimately being controlled by the clinician. In the same light, the diagnostic process is focused on the patient as a whole, directed toward validation of the clinician's initial assumptions about the patient intent on finding out additional relevant information.

Level: Expert

The expert clinician places paramount the physical therapy diagnosis beyond that of the medical diagnosis. The attainment of the physical therapy diagnosis is achieved through focused examination of the patient that at the same time is masterfully comprehensive. The data is collected quickly, but the clinician is unrushed in his approach and omits nothing. The simple diagnosis is not acceptable to the clinician as he genuinely viewed the patient holistically and intended to find out the real nature of the patient's problems. The experts believe that the majority of the discussion during the dialogue should be coming from the patient. The dialogue itself although subjective by definition is an objective measure of the patient's personality and perception of the present problems. The expert actively listens to the patient and assigns the appropriate relevance to the patient's comments. The expert has the capacity to consistently problem solve quickly despite the volume or the converse poverty of available data. The expert knows exactly where his hands are while working with the patient and is a regulated data collection tool.

Exhaustive Description: Resource

Level: Novice

The novice expects his resource to be the clinical instructor or mentor. The student expects a quality of guidance that is instructional and anticipated on the part of the clinical educator.

Level: Advanced Beginner

The advanced beginner has now gained the confidence and a portion of experience. Any questions posed to his peers are now sophisticated enough to exhibit a perceived level of skill beyond that of the novice. The advanced beginner is selective in speaking to knowledgeable peers to ensure that the opinions gathered are sound. The knowledge that is learned from continuing education courses can be directly applied to the patient without guidance from superiors.

Level: Competent

Continuing education is the resource that is most valued by the competent clinician. The competent clinician does exhibit a sense of arrogance in that he does not consult his peers frequently for treatment direction or ideas. The goal of the competent clinician is to apply the knowledge attained at the continuing education courses and the evidence, and the clinician relies less on the opinion of colleagues.

Level: Proficient

The proficient clinician attributes his achievement to being amenable to learning from others and placing himself in the position to learn. The clinician values the opinions and ideas of knowledgeable peers. Continuing education is an additional resource for the proficient clinician as review of the scientific evidence is not a consistent independent learning avenue.

Level: Expert

Continuing education is the window through which the expert acquires expertise and receives validation of his expertise. The continuing education process contributes to how the expert defines his practice. Self-directed research through reading, review of the evidence, and alignment with research-based resources is a requirement for learning and additionally defining the expert's practice. Dialogue with colleagues is not to be diminished as the value of speaking to others is vital to keeping the expert grounded in the profession and its activities.

Exhaustive Description of Measurement

Level: All phases

Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and ask to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development, self determined. There should be no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through his professional life. As one enters a new setting or work with a patient with an unusual diagnosis, any level of clinician, even the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input and a colleague who is as committed to professional development as one will give the necessary report. Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of the clinician's performance. An observation/feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate his level of professional development. Patient outcomes are not the indicator of professional development but the clinician's potential of becoming his physical therapist of choice.

Exhaustive Description of Productivity

Levels: All phases

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care he delivers and how he can contribute to the restoration of health for his patient. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patient to his previous level of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment.

The exhaustive descriptions are the narrative elucidation of the analyzed interview data. The high priority meaningful statements, appear earlier in the wording of the exhaustive description. A larger amount of the total narrative was devoted to priority meaningful statements and the information contained in them. The exhaustive descriptions provided one mode of comparison to the results gathered from the new DPT group of participants to be discussed in the data analysis.

Data collection

Validation panel. The validation panel was proposed and implemented as an additional methodological strategy to strengthen the overall study. The panel took the directive of reviewing the exhaustive descriptions and validating the writing according to how the five levels of professional development by Benner (2001) applied to the physical therapy profession. Additionally, the panel validated the survey to be used within the data collection procedures for the new DPT group and asked questions regarding the chi-square analysis and its function within the study. The ability to have a representative body of peer reviewers, comprised of clinicians and researchers, gathered for the sole purpose of scrutinizing the research data and procedures served to bolster findings of this study. The panel of experts was purposive by invitation, providing professional representation from physical therapy; nursing, per the Benner Model focus; researchers experienced in qualitative and quantitative methods; experts, including those with transitional DPT degrees; and education professionals, who were aware of the application of professional development levels to their practices, performance evaluations, and teaching methods within their professional programs.

It is necessary to delineate the difference between the DPT degree acquired by the experienced clinicians present on the panel and the new DPT subjects of this study. The panel's DPT clinicians possessed a transitional DPT credential received on a postgraduate part-time basis beyond the bachelor's or master's entry-level degree. The new DPT subjects received their DPT credentials as a result of a single entry-level degreed study. This distinction was explained to clarify the superior experience of the panel DPT in comparison to the new DPT subject. The validation panel, by profession and credentials, are as described in Table 4.5.

Table 4.5

Description of Validation Panel Participants

Title	Credentials	Concentration
Educator – Education Department	PhD.	Qualitative research
Educator – Physical Therapy Department	PT PhD. GCS	Quantitative research Geriatric Clinical Specialist
Administrator – General Electric Corporation Scholars	MBA	Performance evaluation
Clinician – Physical Therapy	BS PT	Outpatient clinician Clinical instructor
Clinician –Physical Therapy	PT MS GCS	Outpatient clinician Geriatric Clinical Specialist Qualitative research
Clinician – Physical Therapy	PT DPT MS	Outpatient clinician Quantitative research
Clinician – Physical Therapy	PT DPT MS	Outpatient clinician

The representative from nursing initially accepted, but unfortunately, declined the invitation due to sudden issues. This representative could not be replaced by the time of the panel's session due to the short notice. This researcher decided that communicating and gathering panel evidence from the nursing representative outside of the panel would change the configuration of the research process, the dynamic of the panel's process, and the garnered responses. The configuration of the panel was not changed, nor any substitutions made. The function of a panel was valuable, because this researcher practiced the presentation of the topic to the body of physical therapists and related discipline members. A group of this caliber would be a similar audience to that of any professional conference or annual meeting who would be responsible for introducing policy and practice standards to the profession in the areas of clinical practice and education. The panel indicated to this researcher that its expectation was to conduct the meeting in such a fashion as to provide a mock doctoral defense experience. The raising of specific questions and having this researcher critically think through and then verbalize a response was to be a rehearsal for this researcher. In addition, this process may have potentially provided additional ways to critically think through and conduct the remaining portions of the research study.

The actual panel session lasting three hours had multiple components. The session consisted of (a) a review of a complete handout of the data collection items [thirty minutes]; (b) a PowerPoint presentation the major points of Chapters 1, 2 and 3 [thirty minutes]; (c) a colloquium style question and answer session during which the researcher was expected to answer at the doctorate level of preparation [two hours]. The complete hand out included the semistructured interview scripts for both groups and a summary of Chapter 1, 2 and 3. The

PowerPoint presentation outlined the rationale for the completed data collection from the experts, the proposed methodology for the new DPT subjects, and assumptions about the data trends. The panel session accomplished a comprehensive review of the researchers work to that point.

At the time of the panel session, the panel members made it clear that the nature of the gathering assumed from the invitation was to provide honest comments and questions similar to the level of a doctoral defense. The process that emerged from the panel session was a formal and serious breakdown of the work and a discussion about the implications for the physical therapy profession as a whole. Also, the magnitude of the study itself was clearly articulated. The panel demanded and received responses to all questions to the best of this researcher's ability. The panel questions included such items as a request that the researcher discuss the difficulties of the mixed method process in which the number of subjects is satisfied by the achievement of themes saturation, while the ability to conduct a meaningful chi-square analysis requires a representative sample. The recommended changes included a decrease of the number of survey questions to seven questions, on one side of the sheet of paper, from the proposed 27 questions. The panel iterated that the credibility of the study was bolstered by the input of this panel, in addition to the survey and the chi-square comparisons, which will be discussed in later sections. A validation panel is a necessity, rather than a novel design construct in order to remain prominent against challenges from a research community who is not wholly in favor of qualitative research studies as the main body of evidence to further the profession. Additionally, the panel recommended that the interview questions, or script, for the semistructured interview remain the same for the new

DPT subjects as that of the expert subjects. Standardization of the interview structure as a logical and clear research procedure facilitates comparison and contrast of the responses provided by both groups.

New DPT subject survey structure and refinement. The survey was used as a strategy to strengthen the methodological procedure overall. The survey was included to reveal data triangulation between itself as a data collection mechanism, the results of the semistructured interview, and the chi-square analysis to ultimately answer the research questions. The survey was developed over an extended period of Phase 2 drawing from the identified themes, the recognition of the significance of the critical incident, the intention to draw out additional information related to skill acquisition, the possible demographic differences due to the origins of professional education, and the comments from the validation panel.

Initially, the survey included a series of 27 questions with the potential to increase as this researcher sifted through the major and meaningful statements produced by the expert subjects' qualitative responses. In order to decide upon the construct, the questions and the length of the survey, preliminary considerations had to be explored including:

- What was the function of the survey?
- What was an appropriate survey length that would not detract from the interview process?
- When should the survey be administered – before, after, or separate from the interview session?

- What questions would foster a satisfactory way to assess data triangulation?
- What questions would facilitate the new DPT subjects to explore a similar thought process to the experts but also provide their unique perspectives?

The balance between necessary, useful information and how the information should overlap, or triangulate, with the other qualitative and quantitative data collected was established by realizing the true function of the survey. The survey was intended to open the data collection process by stimulating the subject to recall previous skill examination and professional experiences in general. Additionally, the Benner (2001) construct was introduced to the participant to see if the framework could be related to the experience of the physical therapist, strategically withholding far reaching integration by the subject until the interview portion. During phenomenological approach of “bracketing” or “epoché,” according to Husserl (Creswell, 1998, p.52), “pre-judgments are set aside” (Creswell, 1998, p.52). This approach describes, theoretically, the rationale for presenting the survey prior to the interview, in order to stimulate the recall ability of the subject and to seek out if the Benner (2001) construct could be relatable to the clinician and the experience of the clinician, all without influencing the responses (raw data) of the interview. The function of the interview, as originally designed and as explained by Husserl’s phenomenological order of the survey, was to provide the data of the new DPT subject’s lived experience and the physical therapy characteristics of the five levels of professional development using the Benner framework as the scaffold.

The survey length initially covered both sides of one sheet of paper and was 17 questions long. The survey was short answer and hand written by the new DPT subject, without a prescribed time for completion. The delivery of this data collection process took place at the beginning of the interview process, prior to the administration of the interview questions.

The validation panel, upon review of the survey, suggested that approximately 60% of the survey questions repeated the questions asked in the semistructured interview. These questions would duplicate the collection of information and potentially confound the unique qualities of the new DPT subject responses via bias. This researcher noted the potential for bias through placing more importance on repetitious answers. Straight-forward answers needed to be of equal importance. The goal to facilitate thinking and allow comprehensive verbal responses from the new DPT subjects via the interview process had to be maintained.

The survey was reduced to seven questions per the validation panel's recommendations and presented on one side of a sheet of paper. The survey was completed by each new DPT subject out of the researcher's sight. Each subject completed the survey in the same location prior to the semistructured interview.

The survey included seven questions as follows:

1. Refer to the Five Levels of Professional Development handout. In your experience, have levels or similar items been used or presented to you/by you previously? Please describe.

2. Refer to the Five Levels of Professional Development handout. In your experience, have levels or similar items been used or presented to you/by you previously? Please describe.
3. How would you achieve the next highest professional level? What strategies would you employ?
4. How should your achievement be measured? By whom?
5. Describe a typical case that you have worked with recently. Why is this case typical?
6. Describe a complex case that you have worked with recently. Why is this case complex?
7. You are conducting an examination of a new patient. How would you interact with this new patient?

Question 1 referred to the identification of any previous knowledge of the Benner (2001) model or any other scale that was available to physical therapy. Question 2 spoke directly to the conceptualization that the Benner model was applicable to the physical therapist on a practical level. Question 3 prepared readers to think in terms of critical incidents, exploring the individual clinicians' the ability to recall events according to the their lived experiences. In a direct attempt to facilitate a meaningful response, Question 4 referred to the research subquestion: Do the Benner stages of professional development define the transition of the newly licensed DPT? Questions 5 and 6 referred to the direct comparison of skill levels by the two groups. The difference in the descriptions of the answers from the new DPT and expert subjects indicated the different levels of professional development. Question

7 was a clear attempt to compare and contrast the interaction styles of the new DPT and expert subjects and provide sound evidence that can be compared the semistructured interview comments as identified in the *interaction* theme.

New DPT interview structure and refinement. The semistructured interview questions were constructed while the initial contacts were being made with the 10 clinics. The interview questions were derived from the discovery of the context of physical therapy history, the evolution of events, and the review of the long-standing arguments in legislation for and against the autonomous practice of the physical therapist. Additionally, this researcher, and in agreement with the validation panel, decided that the interview semistructured questions should be the same as those questions asked in the expert subject interviews. The interview outcome, in other words the data sorted to provide the exhaustive description, from both groups had to be comparable. Also, it was necessary to derive the findings from the new DPT clinicians in way they could fully and similarly describe the physical therapy characteristics of the five levels of professional development. Therefore, the Benner (2001) framework had to be presented in the same manner so that clear comparisons could be made from the responses.

As noted in Chapter 3, the APTA has defined autonomous practice as “the freedom to make independent judgments in the provision of physical therapist services and to be responsible for the patients’ outcomes” and the desire to be “self governing” (APTA, 2003a, p. 27) in clinicians’ practice. The methodology highlighted how to collect data from professionals in an effective manner. It also provided substantive information about the

clinicians' thoughts regarding the Benner (2001) model. The substantive data would provide the actual answer to the major research question and the subquestions. The data collected had to be focused, but broad enough, to speak to the lived experiences of the new DPT subjects and also to provide a full perspective of the Benner model characteristic of physical therapist practice.

The semistructured interview questions were therefore based on how to facilitate the recall of significant events pertaining to the five levels of professional development as described by Benner (2001), in terms of the physical therapist experience. The questions as displayed in Appendix J outlined a course of discussion about the DPT subjects' experiences that also included the demographics of the subjects, which related to the sampling strategy of purposive focus. Additionally, the interview discourse allowed the subjects to speak freely as to the existence of the Benner (2001) stages within physical therapy, to approach what the descriptors within their lived experiences existed, and to tackle what had happened in the profession distinctly safeguarding the gains that have been achieved.

Phase 3

Phase 3 of the methodological design included the following:

- Study Procedures:
 - Identification of demographic region of the study
 - Identification and recruitment of new DPT Subjects
- Data collection:

- Completion of survey by new DPT subject and interview
- Study Procedures:
 - Transcription of the audio taped interview to text
 - Review and return of the raw interview text by the new DPT subjects
- Data Sorting & Analysis:
 - Sorting of demographics of the new DPT subjects
 - Grouping of survey data
 - Coding of the data collected, the identification of the major statements, and grouping of meaningful statements into identified themes
 - Formation of exhaustive descriptions foundational outlay
- Data Collection:
 - Validation by research assistants

Study procedures

Demographic region of study. As in the recruitment process for the expert participants, the new DPT subjects were selected from the tristate area (Connecticut, New Jersey, and New York), plus Massachusetts and Rhode Island. This process was based on the assumption that the northeast region would produce qualities of answers that would be of significance to compare and contrast. The practice environment generated by an assumed regional philosophy of treatment and any political attitudes toward the emergence of the profession was of equal importance. Additionally, regional equity of Expert to new DPT subjects simplified any comparisons if the demographic areas of the subjects were the same

or similar.

Identification and recruitment of new DPT subjects. The process of recruitment was conducted through the e-mail system. Recruitment through letter writing was eliminated at this point in the research procedure due to the 100% negative response rate achieved in the expert subject recruitment process. The e-mails were initially sent to the directors of physical therapy and program supervisors first identifying the employment status of new DPT employees within their individual facilities and then identifying potential candidates for this study. Of the initial e-mails sent, 30% of Connecticut directors and supervisors responded to the request for new DPT nominations, 20% in Rhode Island responded, 20% in New York responded, and in the remaining states only 10% responded. The identified new DPT clinicians were then e-mailed this study's information, including the construct of the data collection process. Agreement and the logistics of the interview process were arranged by a second e-mail sent to the new DPT participants.

The demographics of the subjects garnered for the study were as outlined in Figure 4.8. The demographic information identified as important (age, gender, race, education data, work location and length of experience) was collected; these data factors were identical to those factors collected from the expert subjects in order to provide an appropriate profile of the study participants. This data provided a range of information for comparison to the expert participant data, APTA norms, and potentially, similar studies. The APTA national norms of race and gender as part of the subject mix descriptions were representative in the data presented in Table 4.6.

Data collection

Survey completion and new DPT interview. The survey completions and interview sessions of the new DPT subjects were conducted in the locations chosen by the individual subject. The subjects usually chose locations at the work location but chose times outside of regular work hours. The data collection session consisted of the completion of the survey, followed by the semistructured interview. The survey was completed within a range of 17 to 25 minutes. The length of the semistructured interviews ranged from 40 to 60 minutes. The time frame for both components of data collection did not have a prescribed time frame.

Study procedures

Interview transcription and review by new DPT subjects. The procedure followed to transcribe and sort the interview data collected from the expert subjects was the same as conducted for the new DPT subjects. Subsequent to each interview, the taped interview was transcribed into text format. As the text was audibly reviewed and transcribed by this researcher, the major statements started to emerge as comments were repeated and theme saturation was established. The transcribed texts were validated by the subjects for interview accuracy.

Data sorting and analysis

Demographics of the new DPT subjects. The entire data sort and data analysis processes were conducted using the NVivo 7 qualitative computer program as in the Phase 2 of this research for the expert subjects. The demographic data for each of the subjects extracted from the interview responses was placed in the *documents* folder designated by

extracted from the interview responses was placed in the *documents* folder designated by sample. The demographic *attributes* folder of each subject was entered, which provided the sampling results for the new DPT subjects. Delineation of the subject characteristics in a grid format facilitated cross-referencing about the participants in both groups in this study.

The purposeful sample for the subjects consisted of 12 new DPT clinicians. The demographics of these subjects are as outlined in Table 4.6. The demographic items that were isolated and coded as important were age, gender, race, graduation year, institution attended for the physical therapy program and training, entry-level degree, practice state, years in practice, years in outpatient practice, and percentage of total years in practice devoted to the outpatient setting.

As stated in the presentation of the demographic data for the expert subjects, the categories were selected in appreciation of and the potential for comparison to the APTA national professional statistics, as stated in the APTA's "2004 Fact Sheet, Physical Therapist Education". Distinctive conclusions about this population were made from the analysis of the complement of subjects for the new DPT clinicians in Phase 3 of this study per the methodological design. Adhering to the same format as in the outlay of the expert subject information facilitated the comparison of the two groups, in addition to comparison to national normative data.

Survey data grouping of results. Consequent to the completion of all surveys by the new DPT subjects, the survey question comments were sorted by common or similar responses within each question, and the frequency was documented. The information to be

Table 4.6

Demographics of New DPT Subjects

Subject	Gender	Age	Race	Graduation Year	Institution Attended for PT Degree	Entry-Level Degree	Practice State	Years of Practice	% Practice Years in Outpatient
13	M	31	A	2006	State University of New York; Buffalo, NY	DPT	NY	1	100
14	M	29	C	2004	Simmons College Boston MA	DPT	RI	3	100
15	M	27	C	2003	New York Institute of Technology, New York NY	DPT	NY	4	100
16	F	26	C	2005	University of Medicine and Dentistry, Newark, NJ	DPT	NJ	2	100
17	F	26	C	2005	University of Medicine and Dentistry, Newark, NJ	DPT	NJ	2	100
18	F	27	C	2005	University of Medicine and Dentistry, Newark, NJ	DPT	NJ	2	100

(continued)

Table 4.6

Demographics of New DPT Subjects

Subject	Gender	Age	Race	Graduation Year	Institution Attended for PT Degree	Entry-Level Degree	Practice State	Years of Practice	% Practice Years in Outpatient
19	F	34	C	2003	University of MA Lowell, MA	DPT	RI	3	100
20	M	26	C	2006	Boston University Boston, MA	DPT	CT	1	100
21	M	48	C	2002	Slippery Rock University Scranton, PA	DPT	CT	5	100
22	F	27	C	2005	University of MA Lowell, MA	DPT	MA	2	100
23	M	25	C	2006	North Eastern University Boston, MA	DPT	CT	1	100
24	M	28	C	2005	University of MA Lowell, MA	DPT	MA	2	100

Note. M = Male. F = Female. C = Caucasian. A = Asian.

gained from the survey provided answers to the research questions and triangulate the data from the semistructured interviews and chi-square analysis.

Coding of the data and identification of major and meaningful statements.

Following the validation of the translated texts from the subjects themselves, the entire texts of the subjects' interviews were imported into the NVivo 7 qualitative analysis program, a similar process as completed in Phase 2. Next, the demographic data for each of the new DPT subjects were manually placed in the designated by sample *document* folder, in which the demographic *attributes* of each subject were entered to facilitate and provide richness of inquiry and cross referencing. The demographic data entered were “purposive” (Richards, 2006, p. 71) in providing the possibility to answer the questions regarding comparison of the subjects to the APTA demographic national norms.

The program allowed meaningful statements to be extracted from the full texts and placed in an again purposive arrangement according to subject in the area of the program called the *free node* folder. The major statements were clustered, or sorted, into major categories in which a frequency count of similar comments could be established. These categories, holding major statements extracted from the full texts, were then transferred to the *tree node* folder. The process of transfer to the *tree node* folder involved placing the major statements into formally identified themes and actual coding of the information. The ability of the coding mechanism provided by this program allowed the researcher to calculate the repetition of comments per *category*, or similarity of context and identify, as well as to validate systematically and track the saturation point of comments and their associated ideas. The coded data was then arranged in priority order per the frequency volume with the ability

to track the source subject of a particular meaningful statement. This coded data arranged in priority order was categorized into identified themes that could be labeled the same as the expert categories. Interestingly, the same themes emerged as noted by the similarity in vocabulary, topics of discussion, philosophy of thinking, and the orientation of the discussion. Despite different meaningful statements, the ideas encompassed in each category were the same. The identified themes were (a) attitude, (b) interaction, (c) performance, (d) resources, (e) measurement, (f) productivity, and (g) motivation. Figure 4.4 outlines the coding process for the new DPT subject interview data results from the major statements to the exhaustive descriptions.

The NVivo 7 sorting procedure was the same for both the expert and new DPT subject data. The sorting procedure within the NVivo 7 system was as shown in Figure 4.3, Table 4.2, and Figure 4.4 . The major statements derived from the raw interview data were the basis for the exhaustive descriptions created by using the wording from the sorted qualitative data.

Table 4.7

New DPT Meaningful Statements by Professional Development Level and Theme

Theme: Attitude	
Level: Novice	
1.	The clinician does not know the patient (6,6)
2.	The clinician is insecure in their feelings around other clinicians and patients (4,5)
3.	The clinician is defensive about the clinical decisions and treatment practices (3,5)
4.	The clinician is not impacted by the patient's comments (3,3)

Level: Advanced Beginner

1. The advanced beginner demonstrates confidence (3,4)
 2. The clinician know the patient (3,3)
 3. The focus of the interaction is the patient (3,3)
-

Level: Competent

1. The focus of the intervention is to achieve what the patient would like to do, their goals (6,9)
 2. The clinician is confident in what they is doing and the decisions made (5,5)
 3. Information seeking behavior is an integral part of the work (4,4)
 4. The clinician knows the patient (4,4)
 5. The clinician is interested in what the patient has to say (4,4)
-

Level: Proficient

1. The patient is the focus of the interaction (5,6)
 2. The patient's comments are meaningful (3,3)
 3. Information seeking behavior is integral to the clinician's existence (2,2)
 4. The clinician is defensive about their clinical decisions and practices (2,2)
-

Level: Expert

1. The patient is the focus and reason for the intervention (7,10)
 2. Patient comments are meaningful (3,3)
 3. The clinician integrates information seeking behavior into their existence (2,2)
-

Theme: Interaction

Level: Novice

1. Interaction with the physician is an unknown and a struggle (3,6)
 2. Interaction is important and done by asking questions (3,5)
 3. Interaction with their coworkers is a learned task (3,3)
-

Level: Advanced Beginner

1. Experience allows the clinician to interact with others more easily (4,7)
-

Level: Competent

1. The benefit of interacting with peers is the gain from the peer's experience (4,6)
 2. Interaction with the physician is as needed and direct (4,5)
-

Level: Proficient

1. Interaction with the physician is straightforward and frequent (3,5)
 2. Interacting with the team means the introduction of new ideas (3,3)
 3. The clinician shares knowledge by facilitating the right direction, not by answers (3,3)
-

Level: Expert

1. The expert passes on the knowledge so that other can gain (6,9)
 2. The expert is all-knowing, a wealth of information (4,5)
 3. The expert compliments and bolsters the staff (2,5)
-

Theme: Performance

Level: Novice

1. Dialogue with the patient is insignificant (4,5)
 2. Diagnosis is reached by over objectification or asking for validation from others (4,5)
 3. The novice is unable to think and analyze the situation (4,4)
 4. The novice is paralyzed by the amount of knowledge (3,4)
 5. Lack of experience is drawn upon in order to problem solve (3,4)
-

Level: Advanced Beginner

1. The clinician can introduce themselves to the patient independently (4,7)
 2. Treatment focus is based on the patient's immediate improvements (4,6)
 3. The clinician relies on the experience of case repetition to formulate a patient diagnosis (3,3)
-

Level: Competent

1. The clinician has problem solving ability but has difficulty excluding the irrelevant (9,10)
 2. The clinician relies heavily on objective measures to arrive at the diagnosis (8,13)
 3. The clinician attempts to gain the patient's trust by engaging in dialogue (8,9)
 4. The treatment focus is based on the patient's achievement of goals (6,8)
 5. The clinician is able to get the patient back to their previous level of function and not beyond (6,7)
 6. Thinking functionally is a significant factor to patient improvements (5,8)
 7. The clinician recognizes and admits their limitations and refers the patient out (4,7)
-

Level: Proficient

1. The clinician's problem solving ability that produces focused action and quick results (6,8)
 2. The clinician is able to integrate their knowledge and data gathered about the patient (4,4)
 3. The clinician can "get the patient better" to an advanced level of function (4,4)
 4. The clinician has strong interpersonal skills and consistently speaks to the patient at an appropriate level (4,4)
-

Level: Expert

1. The expert does not rely on the medical diagnosis; they evaluate to their satisfaction (6,7)
 2. The expert is a master of their field and does not waste time on anything (4,6)
 3. Manual treatment or handling is the focus of the clinician time with the patient (4,5)
 4. The expert possesses a very approachable demeanor (4,4)
-

Theme: Resources

Level: Novice

-
1. The clinician functions by observing and imitating other clinicians (4,4)
 2. Validation from supervisors is consistently requested (3,4)
 3. The clinician is unable to fathom continuing education course information in addition to challenges of the new profession (2,2)
-

Level: Advanced Beginner

1. The clinician easily seeks advice from peers (5,7)
-

Level: Competent

1. Dialogue with peers is an expectation (5,7)
 2. The comments of subordinates is valuable (2,2)
-

Level: Proficient

1. One does not function in isolation (2,4)
-

Level: Expert

1. Continuing education is equated with the level of professional growth (2,4)
-

Theme: Measurement

Level: All phases

1. Self-assessment is critical to be realistic about what level one has achieved (9,20)
 2. There is no stepwise progression through these stages (11,12)
 3. The annual review is a tool used by a good supervisor to tell the clinician the truth about their level of professional development (7,10)
 4. A tool to list general characteristics such as the CPI or Generic Abilities Assessment is beneficial to see where the clinician is (5,9)
 5. Peers have a responsibility to give feedback to colleagues about how they have done over the course of a year (4,6)
 6. Patient satisfaction and the treatment outcome pertaining to quality of life will tell the clinician where he is (4,4)
 7. Some clinicians do not care where they are in their professional development (2,2)
-

Theme: Productivity

Level: All phases

1. Productivity means how many people a clinician can see per day and per week, a negative connotation (12,12)
 2. Seeing as many patients as possible while providing quality interventions (12,12)
 3. Productivity means treating effectively within the time frame that the clinician has (12, 12)
-

Theme: Motivation

Level: All phases

1. The clinician is motivated by the patients getting better and the patient accomplishments in general. (12, 12)
 2. Motivation in the clinician is present or it is not. (12,12)
 3. Motivation is as important for the novice as it is for the expert. (12,12)
-

Exhaustive descriptions fundamental outlay. Once the themes were identified and the meaningful statements were prioritized by the frequency of appearance, the exhaustive descriptions were completed. Table 4.8 includes the placement of the exhaustive description in the coding process.

Table 4.8

Foundational New DPT Exhaustive Descriptions by Professional Development Level and Theme

Exhaustive Description: Attitude

Level: Novice

The novice clinician is a student. His clinical experiences consist of the laboratory course work and the part-time clinical experiences all taking place within the academic semester. The student has no concrete patient experience. Upon his primary patient encounters, the student realizes that the patient is the source of his work and that the novice clinician's acceptance of the patient is crucial. The student has a complete lack of confidence in himself and his skills, because he/she has no didactic basis for comparison or reference. The student is knowledgeable enough to recognize the basis status of the patient but is not able to formulate the reason for the injury or interpret his collected data. The student will ask for help from the clinical instructors and other available clinicians. As students advance through multiple clinical experiences, the questions from students tend to diminish.

Level: Advanced Beginner

The advanced beginner portrays a level of confidence that is perceived as strength in clinical decision-making and effective application of skills. This clinician in reality is afraid of making a mistake and hopes that the decisions made and treatments implemented are the correct ones. The advanced beginner has learned that portrayal of confidence and conviction of decisions is needed and is being observed by clinicians in the practice environment. The clinician realizes that the focus of the patient interaction and dialogue process is the patient. The clinician realizes the importance of knowing and understanding the patient, but he is skeptical whether or not the important patient features have been fully captured by the clinician.

Level: Competent

The patient now becomes the focus for the competent clinician. To establish the therapeutic relationship, the clinician tries to relate to the patient in some way. Topics such as life events or family are discussed with the appropriate amount of disclosure on the part of the therapist. This quality of dialogue is the common mechanism used to engage the patient. The competent clinician is interested in what the patient has to offer to the situation through his discussion and has gained the insight that he/she can learn a lot about the patient by speaking with them.

Additionally, the value of knowing the patient is recognized. The patient's goals are now the focal point of treatment rather than the goals established by the therapist depending on the patient problem and the corroborating scientific evidence. The competent clinician continues to search the evidence for the appropriate treatment strategies but also values the opinion of other more knowledgeable clinicians and includes this opinion gathering into his/her inquiry process. Confidence in themselves and the decisions that they have made is evident.

Level: Proficient

The patient is the primary focus of the interaction or treatment. The proficient clinician is concerned about the patient as a whole and what the patient's thoughts are about therapy in general related to his recovery. The proficient clinician at this point finds the time to educate the patient in terms of the therapy process, the actual patient problems or injury, and what the expected outcome is. Conversely, the clinician is able to find meaning in the patient's comments by not only engaging in dialogue but using the analysis of what the patient is saying as a data collection tool in order to better pinpoint the patient problem. The competent clinician does seek to validate the decisions that he have made by gathering the opinion of others and relying on experience, and less by searching the scientific evidence.

Level: Expert

The expert clinician is totally focused on the patient as a whole person. The expert is committed to doing whatever is needed to improve the patient's level of function and relieve the problems diagnosed. The expert clinician deals with the patient directly, is empathetic, and appears to spend more time with the patient in comparison to the subordinate clinicians. The expert clinician appears confident, self-assured, unencumbered by time constraints, and able to handle all facets of his job responsibilities with ease. The expert clinician communicates with the patient so well that the client is not afraid to reveal anything to him. The patients tend to demonstrate admiration for this level of clinician. Despite this sense of elevation, the expert clinician is not all-knowing. The expert clinician consistently demonstrates information seeking behavior in his daily practice that includes not only researching a topic effectively but also by relying on the experience of coworkers whom he/she seeks out by asking poignant questions.

Exhaustive Description: Interaction

Level: Novice

The novice has no concept of interacting with individual peers and colleagues from other disciplines. As it is necessary to disseminate information to those involved in the care of a particular patient, the novice may communicate in a written format or make a telephone contact. These tasks are a struggle for the novice clinician as he attempts to exactly sort out what is essential for this interchange. There is less of a sense of struggle when the information is perceived as contributing to a team effort regarding the patient. Questions and responses in a pool of responses appear to decrease the level of attention paid to the single contribution. Interaction is definitively a learned task. The novice over a short period of time is gaining a perspective of the professional boundaries that exist in the realistic working environment. The lived experience of negotiating this task of interaction is much

different than the concept as presented in the academic process.

Level: Advanced Beginner

The advanced beginner clinician is able to interact easily on a basic level with peers and clinicians within other disciplines as a function of experience. The physical therapist, at this stage, recognizes the necessity to adjust treatment strategies due to mistakes or improvement in his ability to distinguish patient problems over a series of patient treatments. These adjustments are not readily discussed or revealed in the interaction process with peers and other disciplines.

Level: Competent

The competent clinician appreciates the availability of team members to brainstorm about a patient and gather innovative treatment ideas generated by peers and coworkers from other disciplines. The competent clinician seeks out knowledgeable peers not only to increase his own knowledge base but to also provide the best care options for his patients. Additionally, interaction with those involved in the care of the particular patient may not be on the level of consensus. The competent clinician is able to disagree with the clinical decisions being made or advise against a course of treatment outside of his scope of practice. The courage to put forth this advanced level of interaction is facilitated by the physical therapists value of the patient's recovery process.

Level: Proficient

The proficient clinician at this stage has developed a significant quality of interchange over time within hisr practice environment. Interaction with physicians is usually frequent and direct. The physician usually looks to the proficient clinician as the physical therapist of choice for his patients, because there is a mutual respect for each other's work. Interacting with peers still means the giving and receiving of new ideas. Proficiency is not expertise and is not all-knowing in terms of information about a particular topic or treatment strategy. The proficient physical therapist, within his discipline, is open to sharing his knowledge with others but takes on more of the role of a facilitator of learning rather than just providing answers to questions.

Level: Expert

The expert clinician is a wealth of information, all-knowing, and willingly shares his skills with coworkers and subordinates. The expert clinician constantly attends courses and immediately chooses to disseminate this new information to those in his practice environment. The expert clinician also seeks to bolster the staff within his environment by building confidence and recognizing the efforts and growth of subordinates. In turn, the subordinate perceives his interaction with the expert as an advantage from someone who is fulfilling his expected role.

Exhaustive Description: Performance

Level: Novice

The novice clinician recognizes that speaking with the patient is significant, because the academic process stressed dialogue with the patient. What that dialogue consists of and what to do with the subjective data gathered from the patient is unknown and not valued. The patient diagnosis is achieved by over objectification by the therapist during the examination. All possible tests and positions are explored rather than the

situation being analyzed appropriately according to the unique needs of the patient. The novice is paralyzed by the amount of information garnered during the academic process and appropriately applied in the treatment setting. The novice lacks the experience to reflect upon and therefore cannot problem solve without constructive guidance from a clinical instructor.

Level: Advanced Beginner

The advanced beginner is able to dialogue with the patient fully at the independent level. Previously, the clinician required validation from the clinical instructor, but that support has been removed. The advanced beginner has to rely on his perception of the response of the patient. In terms of patient treatment, the reliance on the patient's response to the established treatment approach is the focus of the clinician. Additional examinations, the gathering of new information, etc., are not conducted by the clinicians. Progression of his critical thinking about the patient and justification of his treatment approach is based solely on the immediate improvements in the patient's performance or reduction of symptoms. The clinician then relies on the repetition of cases within his experience to formulate diagnoses for the subsequent cases, not considering the quality of the cases to which the clinician's have been exposed.

Level: Competent

The competent clinician has now developed the skill to problem solve the unique needs of the patient but has difficulty disregarding irrelevant information. The attempt to gain the patient's trust through engaging in valuable but data mining dialogue with patient may be the source of the irrelevant information. The clinician relies heavily on the objective data gathered during the examination to arrive at the proper diagnosis. The trap of over objectification creates a false sense of rigor within the examination. The treatment focus and direction is based solely on the patient's achievement of the established goals. The patient successfully achieves his previous level of function but is not brought beyond that point. The clinician starts to think in terms of the factor of function when analyzing the patient improvements. The clinician has also learned that admitting to the limitations of physical therapy and referring the patient out for more appropriate services is part of the scope of care.

Level: Proficient

The proficient clinician has developed his problem solving ability to that it is described as quick and focused. The clinician appears to know the answers to problems or has outlined the patient's problems without even completing the examination in its entirety. The value of experience, quick recall, and a history of positive patient outcomes allow the proficient clinician to move quickly toward resolving patient issues. The clinician is able to seamlessly integrate his knowledge with the data gathered about the patient and move in the appropriate direction of treatment or advice to the patient as necessary to promote proper carry over of lessons learned. The clinician is able to refer back to his previous level of function at a minimum, and usually is able to facilitate the patient to function at a level beyond that prior to injury. The proficient clinician has strong interpersonal skills and has the talent to be able to speak to the patient at his level integral to the patient's superior recovery.

Level: Expert

The expert does not rely on the medical diagnosis provided by the examination results of the medical doctor. The expert will examine the patient to his level of satisfaction, define the physical therapy diagnosis, and question the medical diagnosis as he matches his data to that presented by the physician. The expert is a master clinician and does not waste time within the examination or treatment sessions, at times robotic in his actions. The expert clinician is able to discuss the reason why he chose a particular direction to treat in or a specific technique. The explanation for his actions is at the forefront of his thinking and the ability to articulate one's knowledge should be as distinctive as one's handling. The handling or manual treatment is the focus of his time with the patient. This hands-on approach requires that the clinician's demeanor not only be professional and trustworthy but also approachable for both patient and clinician alike.

Exhaustive Description: Resource

Level: Novice

The novice constantly seeks the validation of the clinical educators and any other superiors with whom he collaborates. By closely observing the performance of qualified clinicians, the novice imitates the actions of those therapists. The novice has no practical reference to reflect upon. Therefore, the novice clinician very carefully listens for or watches how the qualified clinicians cue the patient manually or verbally to garner a specific patient response. The novice also asks questions as to how the practicing clinicians cue themselves as to what to do or what to look for in a patient in order to move toward making a sound decision or observation. The novice clinician has great difficulty adding new information beyond that of the information recently acquired in his academic process. The prospect of continuing education is overwhelming despite the realization that the doctoral degree is only the beginning of the learning spectrum in terms of quantity of substantive information and the life long learning process.

Level: Advanced Beginner

The advanced beginner uses other clinicians as resources to validate his ideas and critical thinking. The loss of the guidance from the clinical instructor or mentor leaves the clinician to trust his own decisions, but sound advice from peers is welcomed.

Level: Competent

The competent clinician readily dialogues with colleagues and superiors about his patients. This level of dialogue is expected to be present and consistent. Without the opportunity to brainstorm about a patient case with coworkers, the practice environment would be severely lacking in integrity. The opportunity to brainstorm and accept ideas is not limited to peers or superiors. Subordinates within the working environment also offer substantive suggestions to the treating physical therapist. The outcome of having resources as a competent clinician is to ultimately benefit the patient.

Level: Proficient

The proficient clinician uses multiple avenues as resources. Peers, subordinates, and continuing education are the expected modes of learning. The proficient clinician

also recognizes the patient as a resource. The clinician does not function and learn in isolation. Therefore, multiple resources have to be utilized for the clinician to advance his skills.

Level: Expert

The expert equates his scope and volume of continuing education opportunities with the level of his professional growth. The expert does not envision his knowledge base as being terminal but that his expertise is a continuing process that requires consistent maintenance. This maintenance is continuing education.

Exhaustive Description: Measurement

Level: All phases

The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in his practice. One way of doing that is to maintain an active professional life. A good supervisor or company will provide an annual review process of the employed clinicians. Excellent samples are the Generic Abilities Assessment Tool or the Continuing Education Performance Instrument both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full-time practice. Peers are also a genuine source of feedback regarding one's performance as he has worked with a patient over an extended period of time and through many experiences. The patient satisfaction survey or comments is also another source to gauge a clinician's level of professional development pertaining to the general outcomes and also how this has impacted the patient's quality of life.

Exhaustive Description: Productivity

Level: All phases

Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the clinician's assigned workload creates a poor environment. The novice to the expert is burdened by these statistical requirements rather than being granted more freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available.

Exhaustive Description: Motivation

Level: All phases

The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's

drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert and potentially even more so for the novice. The novice has no physical therapy foundation to reflect upon or apply to bolster his mindset. Motivation denotes the therapist's potential ability to move through the five levels of professional development and must be seized by the novice in order to attempt finding the pleasures of this profession.

The exhaustive descriptions were a culmination of the major statements into descriptive commentary, providing a detailed presentation of the physical therapy characteristics. The characteristics described by each group were written distinctly at each level so that the generational or group differences would be evident. The exhaustive descriptions, in their entirety, were the actual product sought after by the qualitative process of this research study.

In the analysis of the exhaustive descriptions the data was organized into the Benner (2001) construct as a process of further interpreting the information for the physical therapy profession and the defining characteristics that have been collected. In order to structure the exhaustive descriptions into a recognizable Benner format, the descriptions were rearranged in terms of the five levels sequentially listing the seven themes. Within the conceived format, the complete portrait of each of the levels could easily be reviewed.

The rearrangement of the exhaustive description components into the Benner levels of professional development facilitated comparison and contrast of the identified characteristics acquired through this research. The methodological stage of comparison and

contrast allowed the formation of the proposed Brooks model of professional development and provided key elements to discuss in the interpretation of the generated data.

Research methodology validation. An additional step in the methodological procedure was the validation of four texts, 17% of the data collected from both subject groups, by research assistants. The rationale for this procedure was to:

- Validate the exhaustive descriptions by first showing alignment of the researcher with the assistants in the themes that were derived from the raw data
- Reduce researcher bias for the entire study by finding alignment in the descriptions and descriptor comments made by the subjects drawn from the interview data
- Produce alignment and agreement with the researcher in terms of the clarity of review, ability to capture, and consistency in the assessment of the data collected

The research assistants were expert clinicians selected from the physical therapy community. The selection of the research assistants was based on (a) extended outpatient experience, 30 years of physical therapy practice experience, (b) qualitative research experience, (c) possession of qualities of the expert clinician, (d) time to conduct the validation process, and (e) long standing membership in APTA, with awareness of changes in the practice environment, legislation, and the vision of APTA. The research assistants received instruction simultaneously in a conference room environment. The research assistant team was instructed to:

1. read the text of the research participants completely

2. garner from the texts major statements through finding poignant individual statements
3. arrange the statements into any categories or groups that were representative of context themes
4. prioritize the major statements within each theme dependent upon frequency of appearance

The research assistants were instructed in how to use the NVivo 7 system. Both research assistants declined the use of the system to sort the data, both expressing strongly their preference to conduct the sorting process manually using Word 2003. The research assistants were asked to randomly select two numbers between one and 12. The two numbers that each research assistant chose aligned with the assigned case number for the subject. That case's text was e-mailed to the researcher after the instructional session. One research assistant was given two expert texts to review and the second research assistant was given two texts from the new DPT subjects. The research assistants were not informed of which participants they were reviewing.

The research assistants were given general information about the topic of the research, the significance of the research, and the basic framework of the research procedure. The goal of this step was to provide additional strength to the research process. The researcher's bias of gathering meaningful statements and theme identification would be lessened by a level of agreement between the researcher and the research assistant. Typed word document text outlines the exact responses by the two research assistants. Each

assistant acknowledged and identified that the levels of professional development existed within the texts reviewed according to the Benner model. The assistants identified the themes of the levels as shown in Table 4.9

Table 4.9

Themes Identified by Research Assistants

	Research Assistant 1	Research Assistant 2
Themes	Knowledge	Expanded use of tools
	Experience	Confidence
	Communication	Listening to the patient
	Attitude	Mentorship

The themes identified by this researcher were (a) attitude, (b) interaction, (c) performance, (d) resources, (e) measurement, (f) productivity, and (g) motivation. The comparison of the themes, research assistant: researcher, indicates an agreement in:

- experience: measurement
- communication: interaction
- mentorship and attitude: attitude
- expanded use of tools: productivity
- confidence: performance
- knowledge: resources
- listening to patient (satisfaction): motivation

Although each researcher only isolated four themes, the combination of both results satisfied a correlation between themes identified from the entire body of research. Additionally, all of the meaningful statements garnered by the research assistants were also identified as also meaningful statements by this researcher and stored in the NVivo 7 system. The comparison of the themes, research assistant: researcher, was accomplished by the matching of meaningful statements per theme, which formed the content for each theme regardless of the different theme labels. The significant issue of researcher bias was addressed via the strategy of separate text sorting by the research assistants. The positive results provided validation of the researcher's train of thought while selecting meaningful statements, sorting categories, and identifying appropriate themes. It was assumed that it was not necessary for the research assistants to sort a larger number of texts in order to yield a stronger correlation. The results proved the number to texts reviewed to be satisfactory.

Phase 4

The last phase of the methodological design was completed as in the following outline:

- Data sorting and analysis
 - Sample results- Sorting of sample results data and characterization of the sample
 - Chi-square analysis
 - Survey analysis
 - Compare and contrast of exhaustive descriptions following Benner's format

- Data triangulation

Sample results

The purposeful sample consisted of 24 subjects: 12 expert physical therapists and 12 new DPT clinicians. The demographics of the two subject groups, expert and new DPT respectively, were as outlined in Figure 4.1 and Figure 4.2. The sample was stratified and purposive in the respect that the expert subjects were nominated by the local physical therapy community and the new DPT subjects were identified by their superiors per the recruitment methodology of the study. The new DPT subjects entered the study due to the dimension “professional agency” (Turnbull, 2005, p. 195) recognized in them by their superiors. Turnbull (2005) describes professional agency within the context of education “clinical practicum” (p. 197) as:

...interacting effectively in all facets of professional practice; articulates, theorizes and critically reflects upon practice; and exercises moral choice and political capacity... based on a developing but clearly defined professional philosophy. (p. 197)

According to Turnbull (2005), the ingredient of “professional agency” (p. 195) is crucial to the professional understanding of the importance of contributing to the physical therapy profession. In the case of the new DPT clinicians, their perspective of contribution to the profession was the characteristic that allowed them to understand the potential value of this research study and subsequently contribute to this work.

The APTA (2004) statistics regarding the national gender distribution of the profession are 67% female and 33% male or a 2:1 ratio. The results of this study illustrated that within the expert subject group 42% were female and 58% were male, closer to a 1:1 ratio by a 4% difference (one subject). Within the new DPT subject group the gender distribution was 50% females and 50% males, or a 1:1 ratio.

The purposive sample of subjects did not meet the predicted expectation of a female dominated profession. For both groups, the presence of equal representation is indicative of an equal representation within the outpatient setting. The unwritten assumption within the profession is that males dominate the outpatient setting. This dominance is due to the demands of the environment in terms of work hours, business skills expectations, and the level of risk associated with patient referrals based upon individual physician referrals by preference. The patient has the opportunity to choose any physical therapy clinician to provide treatment, but the physician referral usually accompanies sound advice to the patient, which includes knowledge of physical therapists. Within acute care, skilled nursing, and rehabilitation facility settings, the patient referral base is generated by the intake of the institution.

The distribution of race within the study sample was an additional factor that was also predicted from the national norms. The national norms state that 88.1% of physical therapists are Caucasian. The remaining are 5.15% Asian, 2.48% Hispanic/Latino, 1.96 % African American/Black, 0.48% American Indian/Alaska Native, 0.23% Native Hawaiian/Pacific Islander, and 1.56% declared as other by members (APTA, 2007). Of the study participants

within the expert physical therapists, 100% were Caucasian. Among the new DPT subjects, 92% were Caucasian, and 8%, (one subject) was Asian.

The age of the practicing physical therapist included within the study was not predicted by national norms. The study subjects included clusters of four age categories for the expert participants and three clusters for the new DPT clinicians. The majority (58%) of the expert subjects ranged between ages 41 to 50 years of age, with the next largest category (25%) being 31 to 40 years of age. The new DPT subjects (75% were under 30 years of age and only 17% were between 31 to 40 years of age) were included. An explanation or trend of the distribution of the age of the participants could not be described fundamentally due to unknown contributing factors, such as career changes, socioeconomic factors that may impact the individual's choice of physical therapy, and the timing of completion of the program (Epper, 1997). Due to these contributing factors, the year of graduation from the entry-level program was viewed as important regarding the time when doctorate programs were accredited within the particular state.

The APTA "2005-2006 Fact Sheet, Physical Therapist Education Programs" (2007) indicates the available entry-level degrees per state at that point in time. This information delineates that New Jersey and Pennsylvania were the only states where doctorate programs were in development and preparing to graduate their first class of DPT clinicians in 2002. Subject 20 was among the Pennsylvania graduates. All other states included within this study offered physical therapy programs at the bachelor's or master's levels impacting the academic preparation of this study's experts, indicative of the profession's evolution. In the

APTA 2004 Fact Sheet, Physical Therapist Education Programs” (2004), as of 2001, all baccalaureate physical therapy programs had been eliminated.

As of 2004, 53% of all physical therapy programs nationally offered entry-level degree preparation at the doctorate level (APTA, 2007). The study results showed that 58% of the expert participants graduated between 1982 and 1992. All of these expert participants possessed an entry-level bachelor’s degree in physical therapy. The remaining 42% graduated between the years 1998 and 2001. One hundred percent of the new DPT clinicians had an entry-level DPT degree and graduated between 2002 and 2006. The number of years of experience in physical therapy that the expert participants possessed included a wide range. Of the majority of the expert subjects who graduated from 1982 to 1992, 67% had between 19 and 25 years of experience in physical therapy practice. The 1983 graduate, who was over fifty years of age, spent the last 70% of his practice experience in the outpatient setting. Of the remaining 1982 to 1992 graduates, between the ages of 41 to 50, only 69.5% of the most recent practice years were gained in the outpatient setting per the study inclusion criteria. The expert subjects who graduated between 1998 and 2000 possessed years of experience in physical therapy practice ranging from 7 to 9 years, with 100% of their practice experience devoted to outpatients. The expert subject who graduated in 2001 possessed the least amount of practice years, but 100% of those years occurred in the outpatient setting. The remaining expert subjects who graduated between 1998 and 2001, in addition to the new DPT participants, have gained 100% of their practice experience in the outpatient setting only.

Examination of the institutions subjects attended, in contrast to the states in which they practice, revealed results consistent with trends noted within national data. For both the expert and new DPT groups, the majority of subjects graduated from physical therapy programs in the state of Massachusetts: 33% of expert and 50% of new DPT subjects. The second largest category for the expert group was Connecticut, 25% and among the new DPT clinicians, New Jersey physical therapy programs produced 25% of the subjects. Connecticut was able to attract the widest variety of clinicians practicing within the state with entry-level degrees earned from another state. These results are partially a function of the number of clinicians within the group who are practicing in the state of Connecticut.

The new DPT clinicians tend to practice in the state where they earned their entry-level degrees. Furthermore, the states examined within this study appear not to attract new DPT clinicians graduating within other states to work in novel areas of the country. In Figure 4.11, the number of physical therapy programs per state represented within the results are outlined (APTA, 2004). The number of physical therapy programs available within each state did not have an impact on this study. For example, New York State has 22 physical therapy programs, in comparison to Massachusetts which has 8 programs. The majority of the subjects interviewed received their entry-level degrees from Massachusetts (4 expert and 6 new DPT subjects), but New York had a minor representation within the study (1 expert and 2 new DPT subjects).

The breakdown of the demographic information beyond the categories usually examined by APTA was conducted in order to gain depth of the characteristics of the

subjects themselves. It was interesting to note the potential to make conclusions about the states in which the clinicians were educated and the contribution to the number of practitioners working in the northeast region. Additionally, it would be significant to note trends in type of facility (private, corporate, or hospital satellite), which contributed to this research, but also provided the majority of the outpatient setting care and source of the findings for this study.

Table 4.10

Subject Categorization by State

State	Expert Subjects		New DPT Subjects	
	Subjects Attended Program in State	Subjects Practicing in State (State of Program Attended)	Subjects Attended Program in State	Subjects Practicing in State (State of Program Attended)
AZ	1	-	0	-
CA	1	-	0	-
CT	3	4 (CT, FL ,MA, AZ)	0	3 (MA, MA ,PA)
FL	1	-	0	-
MA	4	2 (MA)	6	2 (MA)
NJ	1	2 (NJ, CA)	3	3 (NJ)
NY	1	2 (CT, NY)	2	2 (NY)
PA	0	-	1	-
RI	0	2 (MA, CT)	0	2 (MA)

Note. AZ, CA, FL, and PA were not included in the scope of the study, and therefore, study participants were not practicing in those states.

The study subjects were additionally described in terms of the types of facilities where they were employed. Over half, 58.5%, of the expert subjects were employed in outpatient facilities that were satellites to hospital organizations. These satellites were located at a facility in close proximity to the community or teaching hospital facility, never on the actual campus. The facility was either owned and operated by the local hospital with the

clinicians being employees of the hospital, or the hospital provided the clinical and management staff for an enterprise that was deemed separate from the hospital but was connected through the hospital conglomerate or special interest. The facilities that were titled corporations were represented by 25% of the expert subjects and 43% of the new DPT subjects. The corporations were a part of a series of offices that were privately owned and run by corporations, and all of these corporations were owned by physical therapists. The remaining 17% of the expert subjects were full-time practitioners and the actual owners of the private practice office. The 8.5% of the new DPT subjects (one subject) owned and operated in a single office private practice.

In summary, the physical therapy programs in the state of Massachusetts provided the majority of clinicians who were employed in the region identified for this study to examine, as shown in Table 4.10. Additionally, the facility type that contributed to this study and the area in which most of the study participants worked was the hospital outpatient satellite offices, as shown in Tables 4.11 and 4.12.

Table 4.11

Number of Expert Subjects per Facility Type and Practice State

Practice State	Facility Type		
	Private Practice	Corporation	Hospital Satellite
Connecticut	1	2	1
Massachusetts			2
New Jersey		1	1
New York	1		1
Rhode Island			2

Table 4.12

Number of New DPT Subjects per Facility Type and Practice State

Practice State	Facility Type		
	Private Practice	Corporation	Hospital Satellite
Connecticut		2	
Massachusetts			2
New Jersey		3	
New York	1		1
Rhode Island			2

Chi-square analysis

The chi-square (χ^2) statistical analysis was chosen to analyze the frequencies, or counts, of the coded responses that fell into the categorical variables: expert and new DPT. The “categorical data” was analyzed to determine if there was a “difference between” the frequencies observed within a category and the frequencies that would be “theoretically expected by chance” (Portney & Watkins, 2000, p. 537). The frequencies represent the individual subject or the single response of the actual person. “Repeated measurement or assignment” is not conducted within the chi-square analysis calculation. “The characteristics being measured” were distinctively defined thus eliminating the event of “assignment overlap” (Portney & Watkins, 2000, p. 538). The null hypothesis for the chi-square statistic states, “There is no difference between the actual [frequencies] measured in a sample and the theoretical distribution. If the observed data departs significantly from these expected null values, we reject the null hypothesis.” (Portney & Watkins, 2000, p. 537)

This research study, being descriptive in nature, warranted the application of the chi-square analysis “test for independence” (Portney & Watkins, 2000, p. 544). This researcher analyzed the “association or the lack of association, between two categorical variables. The association is based on the [frequency] of individuals who fall into that category” (Portney & Watkins, 2000, p. 544). The data for this study were derived from subjects whose “classifications” (p. 544) were determined by this researcher to be resultant of the meaningful statements from the coded data.

The null hypothesis for a test of independence states that two categorical variables are independent of each other. Therefore, when the null hypothesis is rejected following a

significant χ^2 test, it indicates that an association between the variables is present.”
(Portney & Watkins, 2000, p. 545)

The significance of the χ^2 value is determined by the critical value. The calculated χ^2 is required to be greater than or equal to the critical value in order to be significant. The “level of significance” (Portney & Watkins, 2000, p. 400), or alpha (α), is a “judgment criterion” (Portney & Watkins, 2000, p. 400) representing if an observed difference can be considered sampling error or real. The α selected by the study researcher is determined via “maximal acceptable risk of making a Type I error” (Portney & Watkins, 2000, p. 400) if the null hypothesis is rejected. The traditional alpha value used within social or behavioral science studies is $\alpha = .05$. The value is not usually lower than $\alpha = .05$, unless there is convincing evidence to suggest that the level of significance has to be more rigorous, such as in a study that tested rehabilitation interventions (Portney & Watkins, 2000).

To display the data being calculated via the SPSS program, a quantitative data analysis program, a “two-way (2 X 2) fixed model matrix or contingency table” (Portney & Watkins, 2000, p. 548) was arranged within the program. According to Portney and Watkins (2000), under the “test for independence” (p. 544), the convention for a 2 X 2 contingency table is as follows: “There will always be 1 degree of freedom associated with a 2 X 2 table. Therefore, the critical value of 3.84 is a common standard for significance” (p. 549). Three analyses were calculated for this study in which the variables were assigned by the researcher based on the research question and results.

The chi-square characteristics chosen for analysis in Phase 4 are as follows: TRANSCOMP, transitional events for the competent clinician or critical incidents; TIMEFRAME, the time frame of achievement of the professional levels; and CONT ED RESOURSE, continuing education as a resource to the competent clinician. As previously discussed, the data source for the chi-square analysis was the frequency count of the single or individual subject's response in agreement or disagreement to the association being tested between the two groups.

To explain, first, the demographic data for all 24 subjects was input manually within the SPSS program. The demographic information categories were the same data identified by the APTA "2004 Fact Sheet" (2004) normative data for the physical therapy profession and the same categories used to organize the demographic information for this study as noted in Tables 4.1 and 4.6 respectively.

Second, the agreement or disagreement of the single or individual subject according to the interview text was coded as a yes or no within the SPSS for each test. For example, the second analysis comprised of an examination of any association between GROUP and TIMEFRAME. An association according to the number of clinicians in each group who agree or disagree (yes or no) that there is a time frame to the achievement of each level of professional development was the actual test.

Table 4.13

Chi-Square Analysis Data Source for GROUP by TIMEFRAME Test

	Meaningful Statements	Frequency Count
<i>Expert Subjects</i>	The individual moves through each level of professional development at his own pace and therefore there is no time frame (6,9)	6 expert subjects in agreement 9 agreement comments made in the original data clustered to form the meaningful statement
	There is a possible time table for these levels (6,6)	6 expert subjects in disagreement 6 disagreement comments made
<i>New DPT Subjects</i>	It is individualized and different for everybody (8,12)	8 new DPT subjects in agreement 12 agreement comments made
	There could be ranges. The first three stages and then the other levels are based on experience (4, 6)	4 new DPT subjects in disagreement 6 disagreement comments made

In Table 4.13, the actual frequency count was six experts agreed and six disagreed with the time association of level achievement and for the new DPT subjects, eight agreed and four disagreed with the association. This count was then analyzed by the SPSS program with the result of an association noted between the two groups. The agreement or disagreement count was also captured within the NVivo 7 System in the meaningful statement frequency data in terms of:

- The individual subject by subject number and demographics, who contributed a comment in agreement or disagreement, and the exact wording grouped into the meaningful statement category
- The number of subjects who gave similar comments in agreement or disagreement

- A specific count of similar responses derived from the interviews of both groups organized by meaningful statement category

The data could be cross-referenced in terms of the single subject for both groups. Although this research limited the chi-square analysis to the choice of the three determined tests, the SPSS program does allow for the analysis of any of the categorical data available within the study. This researcher chose to use the storage ability of the NVivo 7 program because of the nature in which the qualitative data was analyzed and held, partly in a quantitative or count format in conjunction with the narrative exhaustive descriptions. Additionally, the single subject data can be cross-referenced with the results of the new DPT survey responses due to the consistency in storing the data from each subject and the ability to cross-reference the demographics of each respondent.

The categorical variable or subject groups of the expert and new DPT could have been made more finite to include such examples of female aged thirty years or below, expert and new DPT agreement or disagreement to a particular test because of the detail of information stored about each single subject. Because the data stored is detailed and can be cross-referenced, future analysis and inquiry about the study and its subjects is feasible.

The rationale for choosing the TRANSCOMP frequency spoke directly to the methodological strategy in which the two groups of clinicians described the characteristics of the physical therapist through recall of poignant events, or the critical incident. The TRANSCOMP characteristic additionally addresses the major research question, “What are

the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice?”

This first analysis comprised of an examination of any association of GROUP by TRANSCOMP; an association according to the number of subjects in each group who agree or disagree (yes/no) that a transitional event or events (critical incident) take place to inform the clinicians that they have achieved the competent level of professional development. The results $\chi^2 (1, N = 24) = .686, p = .408$ show that there is no association between group and transitional events occurrence. The χ^2 value of .686 falls below the critical value = 3.84, and $p = .408, > .05$, and therefore, is not statistically significant. The null hypothesis of no association is therefore accepted. The chi-square result did suggest that per the major research question, “What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice?,” critical incidents inform professional development.

Table 4.14

Contingency Table of Transitional Event for the Competent Clinician

Group * TransComp Crosstabulation

			TransComp		Total
			Yes	No	
Group	Expert	Count	6	6	12
		Expected Count	7.0	5.0	12.0
	New DPT	Count	8	4	12
		Expected Count	7.0	5.0	12.0
Total		Count	14	10	24
		Expected Count	14.0	10.0	24.0

The TIMEFRAME chi-square characteristic addressed the potential for data triangulation satisfaction in which both groups within the meaningful statements strongly addressed two facts presented within the data collected. First, the five levels of professional development did exist as revealed by the frame of reference of the statements and the data collected. Secondly, the achievement of the professional levels of development did not have an established time frame. According to the data, movement to and through the levels progressed per the individual therapist. The chi-square analysis results provided a positive answer to the subquestion “Do the Benner stages of professional development define the transition of the newly licensed DPT?” The subquestion is answered, because the stages are used as a scaffold of reference and description in both the qualitative data and this chi-square analysis.

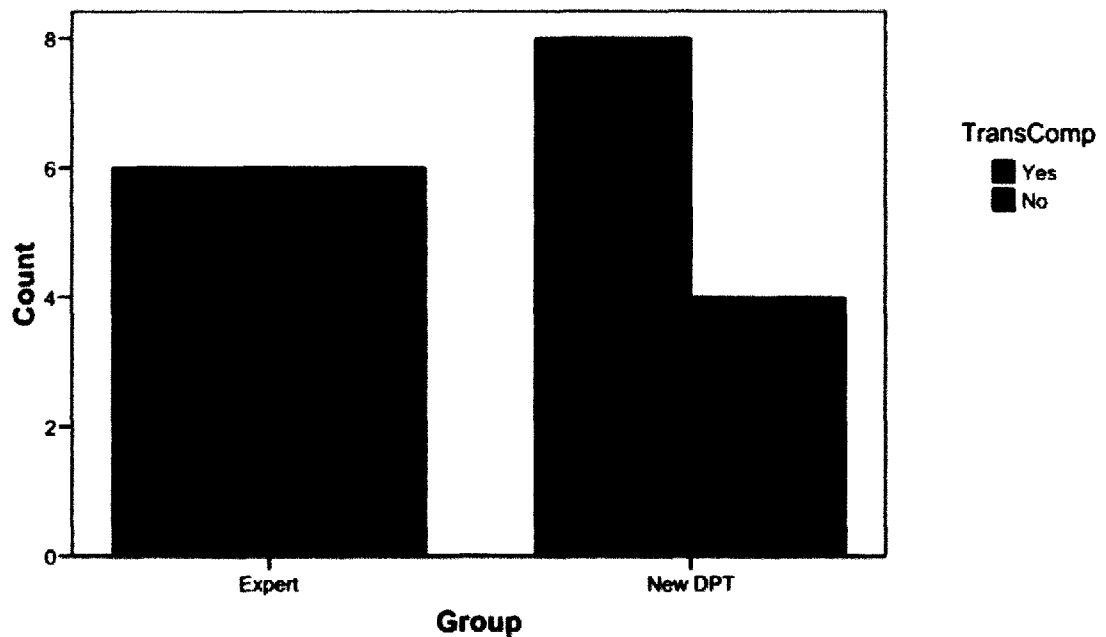


Figure 4.5. Bar graph of transitional event for the competent clinician representing that critical incidents (events) inform professional events.

This second analysis comprised of an examination of any association of GROUP by TIMEFRAME, an association according to the number of subjects in each group who agree or disagree (yes/no) that there is a time frame to the achievement of each level of professional development. The results $\chi^2 (1, N = 24) = 5.042, p = .025$ show that there is an association between group and time frame of professional development achievement. The χ^2 value of 5.042 falls above the critical value = 3.84, and $p = .025, < .05$, is therefore statistically significant. The null hypothesis of no association is therefore rejected.

Table 4.15

Contingency Table of Time Frame of Achievement

Group * TimeFrame Crosstabulation

			TimeFrame		Total
			Yes	No	
Group	Expert	Count	6	6	12
		Expected Count	3.5	8.5	12.0
	New DPT	Count	1	11	12
		Expected Count	3.5	8.5	12.0
Total		Count	7	17	24
		Expected Count	7.0	17.0	24.0

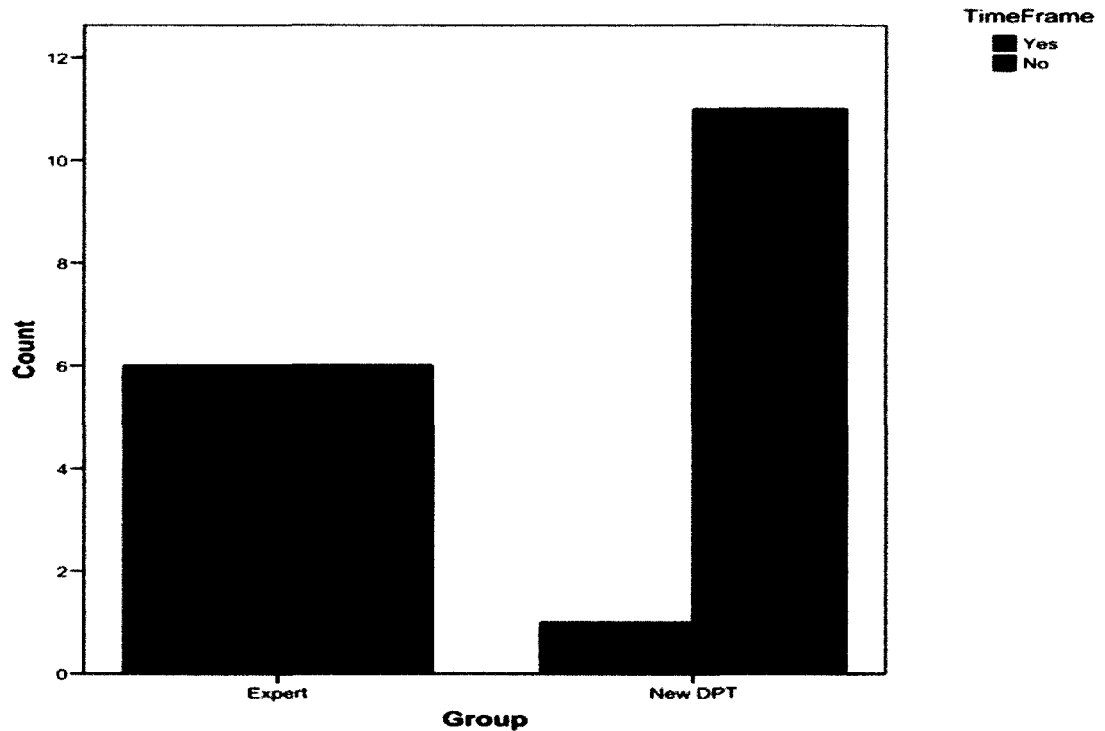


Figure 4.6. Bar graph showing time frame of achievement representing that there is no time frame to achieve each level of professional development.

The CONT ED RESOURCE characteristic addressed the data triangulation strategy of strengthening the study by bolstering the results of the resource theme. The use of resources by the competent clinician was an identified characteristic of the physical therapist per both groups of participants. The strategic choice to examine the CONT ED RESOURCE frequency data yielded agreement with the qualitative data set, demonstrating further the logical analysis within this study and content agreement.

This third analysis comprised of an examination of any association of GROUP by CONT ED RESOURCE, an association according to the number of subjects in each group who agree or disagree (yes/no) that continuing education is a resource to the competent

clinician. The results $\chi^2 (1, N = 24) = 5.042, p = .025$ show that there is an association between group and continuing education as a resource to the competent clinician. The χ^2 value of 5.042 falls above the critical value = 3.84, and $p = .025 < \alpha = .05$, is therefore statistically significant. The null hypothesis of no association is therefore rejected.

The results of the second and third chi-square analyses, GROUP by TIMEFRAME and GROUP by CONT ED RESOURCE, suggested that the new DPT clinicians are impacted by the Benner framework. The existence of the levels of professional development in terms of level advancement and the resource of continuing education being a means of competence achievement were the major findings. The subquestion, “Do the Benner stages of professional development define the transition of the newly licensed DPT?” was satisfied by the chi-square results. Significant to note was the validation of the qualitative, phenomenological data through the results obtained from the chi-square data. The triangulation of data, which had been achieved by the alignment of the two methodologies, bolsters the choice of study procedures and validates the findings.

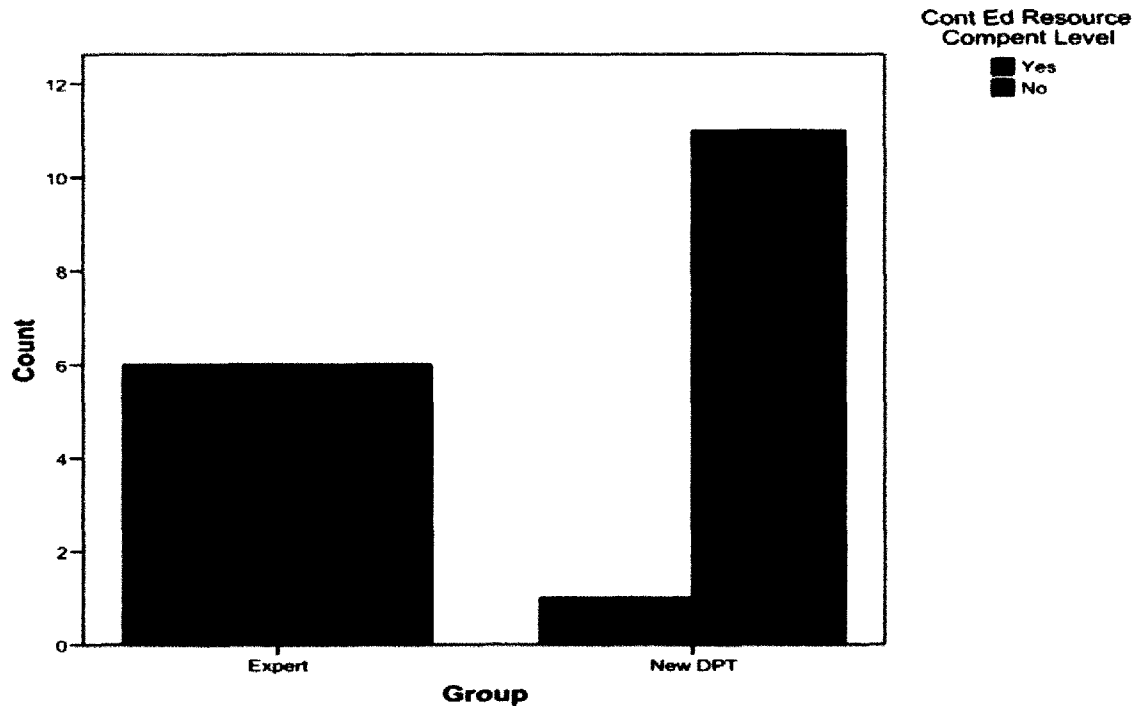


Figure 4.7. Bar graph of continuing education resource representing that continuing education is component to the competent clinician.

Survey analysis

The survey was administered to the new DPT subjects just prior to the semistructured interview. Each subject was given a copy of the five levels of professional development by Benner (2001) to reference as they completed the survey. The survey consisted of seven questions. The questions were formulated following the analysis of the major and meaningful statements sorted from the expert data. The survey was scrutinized by the validation panel prior to the utilization in the new DPT data collection portion of this research study. The purpose of the survey was to strengthen the methodological procedure. As stated previously, survey analysis revealed data triangulation between itself as a data collection mechanism, the

results of the semistructured interview, and the chi-square analysis to ultimately answer the research questions.

Question 1 (Refer to the Five Levels of Professional Development handout. In your experience, have levels or similar items been used or presented to you/by you previously? Please describe) was formulated to stimulate the subjects in two areas: (a) thinking in terms of critical incidents and (b) establishing if the new DPT had professional development training different than the experts.

The survey results revealed that all subjects (12/12) equated the Benner descriptors of the five levels to the descriptors and purpose of the Generic Abilities Assessment Tool. All of the new DPT subjects had had previous exposure to and functional use of the Generic Abilities Assessment Tool (see Appendix I). The Generic Abilities Assessment Tool was developed in 1995 by May and Morgan as a method of measuring the affective domain or professional behavioral skills for physical therapy students.

They [May et al.] adopted an approach called “ability-based assessment.” The approach was based on one used by their colleagues at the University of Wisconsin Medical School and involved the identification of professional behaviors that they believed transcend practice settings and are required for success as a physical therapist. The professional behaviors were called “generic abilities” and observable behaviors, or criteria, were determined to help define different levels of competence for each generic ability. (Jette & Portney, 2003, p. 443)

The subjects consistently documented the tool by name and noted clearly that the tool was used in the physical therapy academic process only. Use or reference to the tool had not been witnessed outside of the academic process. The research subquestion, “Do the Benner stages of professional development define the transition of the newly licensed DPT?,” is partially addressed by the mere acknowledgement that the Benner (2001) framework does have a credible construct for the physical therapist in the realm of performance.

Question 2 (Appropriately apply one of the levels to your current professional status. Describe how you think you may fall into one of these categories.) attempted to directly question the level at which the individual subjects perceived they currently functioned. The selection process by which the new DPT subjects entered the study did not include determination of their exact level of professional development by the department supervisor’s identification. The new DPT subjects were identified because of their DPT entry-level degree status and had practiced physical therapy five years or less. The results showed that the majority of the new DPTs did not view their level of professional development as being in one single category. Seventy-five percent of the new DPT subjects described themselves as falling between two levels. The remaining 25% described themselves as positioned in one level only.

The majority of new DPT subjects who described their level of professional development as crossing two levels, 4/12 (33%), placed themselves in the advanced beginners to competent and 4/12 (33%) described themselves as competent to proficient practitioners. The levels of professional development that were least assigned were the

novice (1/12, 8.5%) of the subjects and novice to advanced beginner. The upper range of proficient was identified by 2/12 (17%) of the subjects.

The research subquestion, “Is the newly licensed DPT able to achieve stages beyond competence?,” is answered directly by the results from Question 2. Fifty percent of the new DPT subjects characterized part or all of their levels of professional development to having achieved the proficient level, one stage beyond the expected competent level.

Question 3 (How would you achieve the next highest professional level? What strategies would you employ?) facilitated the recall of critical incidents surrounding the interaction, performance and resource themes. The quality of responses did include wording from the meaningful statements contained within the identified themes. The “triangulation of the data” (Patton, 2002, p. 247) was undoubtedly demonstrated with the documented responses to this question. The identified themes, associated exhaustive description, and the chi-square analysis show agreement that the recall of critical incidents formed the basis for the data by the significance of work events. The subject comments were single or multiple strategy recommendations, such as experience and self-directed study as the strategies to achieve the next highest level.

Nine out of the 12 of the new DPT subjects cited experience as being the major strategy for advancement to the subsequent level of professional development. The next major response included that self-directed study was specific to movement from one level to the next highest stage, with six of the 12 subjects commenting. The next highest response,

with five out of the 12 subjects commenting, included interaction with physical therapy colleagues and supervisors, 5/12 of the subjects. The use of available resources for four of the 12 subjects was documented in terms of access to research evidence through Internet access and textbook review allowed by the presence of an adequate medical library on the facility campus. The subjects conveyed in their documentation that the available resources were present at the work place. The category that warranted the least comment was continuing education with only two out of the 12 subjects commenting.

Question 4 (How should your achievement be measured? By whom?) was directly triangulated with the measurement theme. The measurement theme speaks to the application of the Benner framework as a benchmark of measurement of professional level of performance, and thus, characteristic of professional development. The research subquestion (Do the Benner stages of professional development define the transition of the newly licensed DPT?) was answered by the results of this question. The recognition that levels of professional performance provide a spectrum for self-measurement or evaluation by others is evident in the subject responses. This recognition indicated that the assumed scaffold of professional development resembled the Benner (2001) model in which earned professional advancement was to be assessed and measured.

The major response from the new DPT subjects was self-assessment, with seven out of 12 (58.35%) group participants commenting. Five out of 12 (41.7%) group participants documented equally that peers and supervisors should provide the DPT clinicians with information as to at which level of the professional development spectrum they are

functioning. Three out of the 12 (25%) group participants stated a knowledgeable physical therapist or a measurement scale would assist the new DPT in determining one's achievement. None of the subjects documented how or by whom the tool was to be administered.

Question 5 (Describe a typical case that you have worked with recently. Why is this case typical) and Question 6 (Describe a complex case that you have worked with recently. Why is this case complex?) were incorporated into the survey to support the notion that the new DPT clinician on a regular basis treated less complex patients than the expert physical therapist. Therefore, it must be true that the expert clinician treats complex cases on a regular basis. Additionally, it was assumed that the documented responses of the new DPT clinicians would reveal their perspectives by their descriptions of typical and complex cases. The new DPT perspectives of patient cases would be simple in comparison to the patient cases described by the experts embedded within the semi-structured interviews context.

The new DPT clinicians reported as expected with only 1 out of the 12 (8.3%) subjects documenting that no patient case was typical. Six of the 12 (50%) subjects stated patient cases that involved joint surgery were typical, and five out of the 12 (41.7%) subjects stated general orthopedic cases described the typical cases they treated.

The DPT survey results revealed from the Question 6 responses that general orthopedic cases were perceived as complex for seven of the 12 (58.3%) group participants. Three out of the 12 (25%) subjects perceived neurological cases as complex to treat, and one

subject (8.3%) identified a complex orthopedic case. This question does not address a research question directly but clarifies the existence of the difference in practice level between the new DPT clinician versus the expert practitioner. The expert clinician does not perceive any of the cases categorized by the new DPT as complex. This evidence, therefore, demonstrated the advanced nature of the expert practice levels and the generational disparity that was identified as a defining difference between the two groups.

Question 7 (You are conducting an examination of a new patient. How would you interact with this new patient?) addresses the new DPT clinician's recollection regarding the performance theme. The majority of the comments, with seven out of the 12 (58.3%) subjects commenting, indicated that the dialogue with the patient would be the process of interaction, or how the subjects perceived the term *interaction* in the context of the Benner (2001) levels of professional development. Five of the 12 (41.7%) subjects would allow the patient to lead the conversation, assuming that interaction meant discussion. Active listening was the smallest percentage reported 3/12(25%), where interaction appears to have taken on an analytical component involving some form of communication or skill. The connection between the characteristics of the physical therapist described qualitatively previously by the Benner framework can be made at this point. The identified theme of *interaction* is explained by the active listening and conversation subject responses and the communication skill description derived from the Benner framework results. The data triangulation of the identified theme and question response provides credibility of the result that the quality of interaction with patients is dependent on the level of professional development that the clinician possesses.

Compare and contrast of exhaustive descriptions

The exhaustive descriptions presented the analysis of *formulated meanings* of who physical therapists are at each of these five levels, or the characteristics of the practicing clinician. As shown in Tables 4.4 and 4.8, the data were assembled according to the order of response from the subjects. The rearrangement of the exhaustive description foundational outlay components into the Benner levels of professional development was meant to organize the data to resemble the Benner (2001) format, now containing the scaffold of the physical therapist characteristics. The comparison and contrast of the identified characteristics discussed by the expert and new DPT subjects as acquired through this research was facilitated by this researcher. Tables 4.17 and 4.18 show the exhaustive descriptions data.

Table 4.17

Expert Exhaustive Description per Benner framework

Level: Novice
Theme: Attitude
The novice clinician is a student who is in their final clinical experience or is the early new graduate. This clinician does not know the essence of the patient that he is working with in the immediate, or realize that he is blind to the patient. Even though he is present with the patient during the treatment interaction or dialogue, the patient's comments are not perceived as useful. The novice is unable to detect the personality of the patient or consider the effect of injury for this patient. The novice seeks out validation from a clinical instructor while still under the protection of clinical education. Once the physical therapist is no longer a student, he becomes very quickly attuned to his shortcomings, hence a sense insecurity in his clinical decision-making ensues. The novice is defensive about their clinical decisions and clinical practice when questioned by any clinician, (peers, supervisors, physicians) for any reason, even if the inquiry is meant to benefit the patient outcome. The novice clinician internally has no confidence in themselves as therapists.
Theme: Interaction
The novice clinician does not interact with other disciplines and speaks minimally with peers. There is a level of intimidation associated with interacting with other clinicians. By interacting, the established clinician will be able to detect the perceived practice shortcomings of the novice.

<p>Theme: Performance</p> <p>The novice clinician has amassed a tremendous amount of information that they are constantly processing simultaneously when they are present with a patient the unique patient problems. The clinician is unable to focus and use the component piece of information necessary to meet the needs of the patient without guidance. The novice once guided has difficulty integrating the information isolated to use in the patient care with the data collected about the patient during examination. Hence, the physical therapy diagnosis is achieved through trial and error. The novice speaks to the patient but lacks the skill of true dialogue and thus ignores what the patient is saying and the value of the information that the patient can provide. This ignorance also translates into the mannerisms of the novice where they physically position themselves poorly so that they decrease the potential of engaging the patient and conduct the treatment inefficiently.</p>
<p>Theme: Resource</p> <p>The novice expects his resource to be his clinical instructor or mentor. The student expects a quality of guidance that is instructive and anticipated on the part of the clinical educator.</p>
<p>Theme: Measurement</p> <p>Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and be asked to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development should self-determined. There is no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through one's professional life. As one enter a new setting or work with a patient with an unusual diagnosis, any level of clinician, even the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input, and a colleague who is as committed to professional development will give the necessary report. Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of one's performance. An observation and feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate one's level of professional development. Patient outcomes are not the indicator of professional development, but the clinician's potential of becoming the patient's physical therapist of choice.</p>
<p>Theme: Productivity</p> <p>Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are</p>

<p>concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment.</p>
<p>Theme: Motivation</p> <p>The motivation of the clinician lies in his own motivation to be a successful clinician and the clinician's role to motivate the patient. The internal drive and desire to learn comes from the motivation that the individual clinician possesses and continuously nurtures. The motivated clinician desires to perform to his highest potential on a consistent level and impact the patient by the demonstration of commitment. Without motivation, no clinician can progress through the levels of professional development.</p>
<p>Level: Advanced Beginner</p>
<p>Theme: Attitude</p> <p>The advanced beginner has gained experience within the field through repetition of a focus of patient diagnoses and types. To this end, the clinician develops a false sense of confidence in his knowledge base and area of practice. The clinician is more secure in asking questions of peers and superiors, because the questions may be perceived as originating from someone who has acquired critical thinking skills because of the breadth of his experience. The clinician is more aware of the patient and is able to engage the patient sufficiently. In the event that the patient is dissatisfied, the advanced beginner is not fully aware of the patient personality, true issues to understand the patient/therapist disconnect and why the therapeutic relationship is discontinued. The patient is not the focus of the clinician's work. The therapist is focused on being correct and delivering care according to the scientific evidence rather than unique needs of the patient.</p>
<p>Theme: Interaction</p> <p>Interaction with peers takes time and understanding of the practice environment. The clinician, through practice, has developed the appropriate skills to interact on all levels without difficulty. Treatment experience is being built and the advanced beginner has realized that he may disagree with the physician in terms of the medical diagnosis or course of treatment for the patient. Subsequently, the advanced beginner is able to communicate his disagreement and offer his differing view for serious consideration.</p>
<p>Theme: Performance</p> <p>The advanced beginner has learned how to develop an appropriate treatment plan for the patient and implement it, but the clinician appears to be staying rigidly within that established plan. Deviation from this focused process would mean that the clinician possessed the ability to integrate other components about the patient and account for these changes. The clinician at this level lacks the skill to integrate into the treatment process new information and significant changes in treatment strategy. One of the obstructions to integration and change is the over objectification that took place initially to arrive at the diagnosis and the foundational treatment approach. To change, modify or integrate would be a massive undertaking of test, retest conditions,</p>

because the initial data collection process lacked focus and streamlining. The methodology of the advanced beginner allows him to function and provide comprehensive care for the less complex patient, but examination, integration of data, and focusing in on an appropriate treatment approach for the more complex patient would be a daunting task because of the advanced clinician's lack of knowledge focus and lack of skill.

Theme: Resource

The advanced beginner has now gained the confidence and a portion of experience. Any questions posed to his peers are now sophisticated enough to exhibit a perceived level of skill beyond that of the novice. The advanced beginner is selective in speaking to knowledgeable peers to ensure that the opinions gathered are sound. The knowledge that is learned from continuing education courses can be directly applied to the patient without guidance from superiors.

Theme: Measurement

Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and be asked to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development should self-determined. There is no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through one's professional life. As one enter a new setting or work with a patient with an unusual diagnosis, any level of clinician, even the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input, and a colleague who is as committed to professional development will give the necessary report. Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of one's performance. An observation and feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate one's level of professional development. Patient outcomes are not the indicator of professional development, but the clinician's potential of becoming the patient's physical therapist of choice.

Theme: Productivity

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be

equated with going beyond the average responsibilities required within the daily tasks of the practice environment.
Theme: Motivation
The motivation of the clinician lies in his own motivation to be a successful clinician and the clinician's role to motivate the patient. The internal drive and desire to learn comes from the motivation that the individual clinician possesses and continuously nurtures. The motivated clinician desires to perform to his highest potential on a consistent level and impact the patient by the demonstration of commitment. Without motivation, no clinician can progress through the levels of professional development.
Level: Competent
Theme: Attitude
The competent clinician has a directed concern about the patient. The clinician is aware that patient satisfaction is important and that the broad perspective of the patient must be captured. The competent clinician is able to establish a better patient/therapist relationship and engages more concretely with the patient by the presence of confidence. The clinician looks confident and is confident in his work to the point of potential overconfidence. Evident is the desire to learn and the goal of acquiring as much knowledge as possible. This open display of interest in inquiry and the supportive evidence for one's clinical practice is detectable by patients and other clinicians. The interpretation of this display by patients and colleagues is open to the individual.
Theme: Interaction
The competent clinician finds interaction with physicians to be much more of a positive interchange, especially if the physical therapist has built a track record of successful patient outcomes. Interaction with coworkers of the same and other disciplines is a positive experience and potentially humbling as you begin to appreciate the contributions of others. In the midst of these positive experiences, the competent clinician has learned that diplomacy is also essential in one interaction and respect for each others work is one of the many professional outcomes.
Theme: Performance
The competent clinician is able to provide the appropriate intervention that will enable the patient to achieve the established goals of treatment. This level of clinician is able to integrate all facets of data collected, the personality of the patient, and identification the actual patient problems to generate an accurate diagnosis. The clinician is able conduct a fluid treatment session that sequences logically according to the patient. The patient outcome is positive and the patient is returned to his previous level of function. But, the restoration is achieved at a slower pace than that of the proficient or expert clinician.
Theme: Resource
Continuing education is the resource that is most valued by the competent clinician. The competent clinician does exhibit a sense of arrogance in that he does not consult his peers frequently for treatment direction or ideas. The goal of the competent clinician is to apply the knowledge attained at the continuing education courses and the evidence and rely less on the opinion of colleagues
Theme: Measurement

Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and be asked to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development should self-determined. There is no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through one's professional life. As one enter a new setting or work with a patient with an unusual diagnosis, any level of clinician, even the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input, and a colleague who is as committed to professional development will give the necessary report. Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of one's performance. An observation and feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate one's level of professional development. Patient outcomes are not the indicator of professional development, but the clinician's potential of becoming the patient's physical therapist of choice.

Theme: Productivity

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment.

Theme: Motivation

The motivation of the clinician lies in his own motivation to be a successful clinician and the clinician's role to motivate the patient. The internal drive and desire to learn comes from the motivation that the individual clinician possesses and continuously nurtures. The motivated clinician desires to perform to his highest potential on a consistent level and impact the patient by the demonstration of commitment. Without motivation, no clinician can progress through the levels of professional development.

Level: Proficient Level

Theme: Attitude

The proficient clinician easily develops a rapport with the patient. The desire to understand the personality of the patient in order to establish the patient's trust is of

<p>primary significance to the therapist. The patient's comments direct the therapist as to what exactly the patient's problem is and validates or disputes the conclusions that the clinician has already drawn from other portions of the examination. The clinician has complete confidence in his actions and decisions surrounding patient care and management.</p>
<p>Theme: Interaction</p>
<p>The proficient physical therapist is the person that coworkers and clinicians from other disciplines come to for treatment advise and brainstorming. The proficient clinician views the role of being the resource as a positive reward. The responsibility of the proficient clinician is to be able to relate those seeking assistance at the level of the individual, peer, or subordinate. These communication skills may or may not be in place.</p>
<p>Theme: Performance</p>
<p>The proficient clinician has the ability to problems solve effectively. The critical thinker is adept at finding the answers to his questions through inquiry into the research literature and considerable reflection upon his own experiences. The clinician is also starting to develop an intuitive process to his problem solving in which the evidence in research validates his intuitive actions. The treatment focuses on the patient's response to the intervention, both the immediate and the long-term based on selective objective measures. The clinician uses the subjective information gathered from the patient through comprehensive dialogue. The clinician at this stage is able to ask closed questions appropriately so that the process is "funneled" toward completion with a level of credible persuasion so that the patient does not detect that the conversion is ultimately being controlled by the clinician. In the same light, the diagnostic process is focused on the patient as a whole, directed toward validation of the clinician's initial assumptions about the patient intent on finding out additional relevant information.</p>
<p>Theme: Resource</p>
<p>The proficient clinician attributes his achievement to the proficient level to being amenable to learning from others and placing themselves in the position to learn. The clinician values the opinions and ideas of knowledgeable peers. Continuing education is an additional resource for the proficient clinician as review of the scientific evidence is not a consistent independent learning avenue for the proficient clinician.</p>
<p>Theme: Measurement</p>
<p>Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and be asked to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development should self-determined. There is no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through one's professional life. As one enter a new setting or work with a patient with an unusual diagnosis, any level of clinician, even</p>

the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input, and a colleague who is as committed to professional development will give the necessary report. Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of one's performance. An observation and feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate one's level of professional development. Patient outcomes are not the indicator of professional development, but the clinician's potential of becoming the patient's physical therapist of choice.

Theme: Productivity

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment.

Theme: Motivation

The motivation of the clinician lies in his own motivation to be a successful clinician and the clinician's role to motivate the patient. The internal drive and desire to learn comes from the motivation that the individual clinician possesses and continuously nurtures. The motivated clinician desires to perform to his highest potential on a consistent level and impact the patient by the demonstration of commitment. Without motivation, no clinician can progress through the levels of professional development.

Level: Expert

Theme: Attitude

The expert clinician views the patient as primary within the treatment process over the sovereignty of the treating therapist. Gaining a solid rapport with the patient to find out what his real concerns are is very important. In order to educate the patient, the clinician has to know the personality of the patient and directly understand and respect what he wants to know rather than what he needs to know. The expert clinician does establish the appropriate professional boundaries without offending the patient and is able to establish a trusting relationship with the patient so that all components vital to full recovery are revealed. The clinician is able to empathize with the patient and invests time in making the patient feel equally invested in his treatment process.

Theme: Interaction

The expert gladly shares his knowledge about the patient with all of those involved in the care of a particular patient. The physician is perceived as more of a peer rather than a director of the patient's care, and therefore the interaction takes on a different

quality. The expert openly communicates with all disciplines and staff. The expert actually provides the leadership that drives the philosophy of the practice environment. The quality of interchange that expert engages in with coworkers provides the construct of support and rapport that translates into the type of patient care delivered by team members and coworkers.

Theme: Performance

The expert clinician places paramount the physical therapy diagnosis beyond that of the medical diagnosis. The attainment of the physical therapy diagnosis is achieved through focused examination of the patient that at the same time is masterfully comprehensive. The data is collected quickly, but the clinician is unrushed in his approach and omits nothing. The simple diagnosis is not acceptable to the clinician as he genuinely view the patient holistically and intents to find out the real nature of the patient's problems. The experts believe that the majority of the discussion during the dialogue should be coming from the patient. The dialogue itself although subjective by definition is an objective measure of the patient's personality and perception of the present problems. The expert actively listens to the patient and assigns the appropriate relevance to the patient's comments. The expert has the capacity to consistently problem solve quickly despite the volume or the converse poverty of available data. The expert knows exactly where his hands are while working with the patient and is a regulated data collection tool.

Theme: Resource

Continuing education is the window through which one acquires expertise and receives validation of one's expertise. The continuing education process contributes to how the expert defines his practice. Self-directed research through reading, review of the evidence, and alignment with research-based resources is a requirement for learning, and additionally, defining one's practice. Dialogue with colleagues is not to be diminished as the value of speaking to others is vital to keeping the expert grounded in the profession and its activities.

Theme: Measurement

Measurement or assignment of one's stage of professional development should be the responsibility of the individual clinician. Self-assessment is a skill that all clinicians should possess and be asked to exercise on a regular basis. The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development should self-determined. There is no time frame for achievement and movement through each of the levels of professional development. One moves at one's own pace through one's professional life. As one enter a new setting or work with a patient with an unusual diagnosis, any level of clinician, even the expert, has the potential to go back to an earlier stage due to lack of experience for that particular focus. Secondary to the self-assessment is the input from a knowledgeable colleague. The goal is to receive honest input, and a colleague who is as committed to professional development will give the necessary report. Because this process is significant, the governing bodies within the community or state should

<p>have a vested interest in the quality of one's performance. An observation and feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician. Ultimately, the patient's response to the clinician will indicate one's level of professional development. Patient outcomes are not the indicator of professional development, but the clinician's potential of becoming the patient's physical therapist of choice.</p>
<p>Theme: Productivity</p>
<p>Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment.</p>
<p>Theme: Motivation</p>
<p>The motivation of the clinician lies in his own motivation to be a successful clinician and the clinician's role to motivate the patient. The internal drive and desire to learn comes from the motivation that the individual clinician possesses and continuously nurtures. The motivated clinician desires to perform to his highest potential on a consistent level and impact the patient by the demonstration of commitment. Without motivation, no clinician can progress through the levels of professional development.</p>

Table 4.18

New DPT Exhaustive Description per Benner framework

<p>Level: Novice</p>
<p>Theme: Attitude</p>
<p>The novice clinician is a student. His clinical experiences consist of the laboratory course work and the part-time clinical experiences all taking place within the academic semester. The student has no concrete patient experience. Upon his primary patient encounters, the student realizes that the patient is the source of his work and that the novice clinician's acceptance of the patient is crucial. The student has a complete lack of confidence in himself and his skills because he have no didactic basis for comparison or reference. The student is knowledgeable enough to recognize the base line status of the patient but not to be able formulate the reason for the injury or interpret his collected data. The student will ask for help from his clinical instructors and other available clinicians. As students advance through multiple clinical experiences, the questions from students tend to diminish.</p>
<p>Theme: Interaction</p>

The novice has no concept of what interacting with individual peers and colleagues from other disciplines is. As it is necessary to disseminate information to those involved in the care of a particular patient, the novice may communicate in a written format or make a telephone contact. These tasks are a struggle for the novice clinician as he attempts to exactly sort out what is essential for this interchange. There is less of a sense of struggle when the information is perceived as contributing to a team effort regarding the patient. Questions and responses in a pool of responses appears to decrease the level of attention paid to the single contribution. Interaction is definitively a learned task. The novice over a short period of time is gaining a perspective of the professional boundaries that exist in the realistic working environment. The lived experience of negotiating of this task of interaction is much different than the concept as presented in the academic process.

Theme: Performance

The novice clinician recognizes that speaking with patient is significant, because the academic process stressed dialogue with the patient. What that dialogue consists of and what to do with the subjective data gathered from the patient is unknown and not valued. The patient diagnosis is achieved by over objectification by the therapist during the examination. All possible tests and positions are explored rather the situation being analyzed appropriately according to the unique needs of the patient. The novice is paralyzed by the amount of information that has been garnered during the academic process that has to be appropriately applied in the treatment setting. The novice lacks the experience to reflect upon and therefore cannot problem solve without constructive guidance from a clinical instructor.

Theme: Resource

The novice constantly seeks the validation of the clinical educators and any other superiors that he is working with. By closely observing the performance of qualified clinicians, the novice imitates the actions of those therapists. The novice has no practical reference to reflect upon. Therefore, the novice clinician very carefully listens for or watches how the qualified clinicians cue the patients manually or verbally to garner a specific patient response. They also ask questions as to how the practicing clinician cues himself as to what to do or what to look for in a patient in order to move toward making a sound decision or observation. The novice clinician has great difficulty adding new information beyond that of the information recently acquired in his academic process. The prospect of continuing education is overwhelming despite the realization that the doctoral degree is only the beginning of the learning spectrum in terms of quantity of substantive information and the life-long learning process.

Theme: Measurement

The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in individual practice. One way of doing that is maintaining an active professional life. A good supervisor or company will provide an annual review process of the employed clinicians.

Excellent samples are the Generic Abilities Assessment Tool or the Clinical Education Performance Instrument, both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full-time practice. Peers are also a genuine source of feedback regarding one's performance as they have worked with one over an extended period of time and through many experiences. The patient satisfaction survey or comments is also another source to gauge one's level of professional development pertaining to the general outcomes and also how one has impacted the patient's quality of life.

Theme: Productivity

Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the assigned workload creates a poor environment. The novice to the expert are burdened by these statistical requirements rather granting the clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available.

Theme: Motivation

The novice clinician has no foundation to reflect upon in order to determine a working definition of motivation. But motivation is of equal importance as in the other levels. The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert and potentially even more so for the novice. The novice has no physical therapy foundation to reflect upon or apply to bolster their mindset. Motivation denotes your potential ability to move through the five levels of professional development and must be seized by the novice in order to attempt finding the pleasures of this profession.

Level: Advanced Beginner

Theme: Attitude

The advanced beginner portrays a level of confidence that is perceived as strength in clinical decision-making and effective application of skills. This clinician in reality is afraid of making a mistake and hopes that the decisions made and treatments implemented are the correct ones. The advanced beginner has learned that portrayal of confidence and conviction of decisions is needed by the patient and is being observed by clinicians in the practice environment. The clinicians realize that the focus of the patient interaction and dialogue process is the patient. The clinician realizes the importance of knowing and understanding the patient, but it is skeptical whether or not the important patient features have been fully captured by the clinician.

Theme: Interaction

<p>The advanced beginner clinician is able to interact easily on a basic level with peers and clinicians within other disciplines as a function of experience. The physical therapist, at this stage, recognizes the necessity to adjust treatment strategies due to mistakes or improvement in his ability to distinguish patient problems over a series of patient treatments. These adjustments are not readily discussed or revealed in the interaction process with peers and other disciplines.</p>
<p>Theme: Performance</p>
<p>The advanced beginner is able to dialogue with the patient fully at the independent level. Previously, the clinician required validation from the clinical instructor but that support has been removed. The advanced beginner has to rely on his perception of the response of the patient. In terms of patient treatment, the reliance on the patient's response to the established treatment approach is the focus of the clinician. Additional examinations, the gathering of new information, etc. are not conducted by the clinician. Progression of their critical thinking about the patient and justification of their treatment approach is based solely on the immediate improvements in the patient's performance or reduction of symptoms. The clinician then relies on the repetition of cases within his experience to formulate diagnoses for the subsequent cases, not considering the quality of the cases to which he have been exposed.</p>
<p>Theme: Resource</p>
<p>The advanced beginner uses other clinicians as resources to validate his ideas and critical thinking. The loss of the guidance from the clinical instructor or mentor leaves the clinician to trust his own decisions, but sound advise from peers is welcomed.</p>
<p>Theme: Measurement</p>
<p>The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in individual practice. One way of doing that is maintaining an active professional life. A good supervisor or company will provide an annual review process of the employed clinicians. Excellent samples are the Generic Abilities Assessment Tool or the Clinical Education Performance Instrument, both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full-time practice. Peers are also a genuine source of feedback regarding one's performance as they have worked with one over an extended period of time and through many experiences. The patient satisfaction survey or comments is also another source to gauge one's level of professional development pertaining to the general outcomes and also how one has impacted the patient's quality of life.</p>
<p>Theme: Productivity</p>
<p>Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the assigned workload creates a poor environment. The novice to the expert are burdened by these statistical requirements rather granting the</p>

clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available.

Theme: Motivation

The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert. Motivation denotes one's potential ability to move through the five levels of professional development and must be seized by the clinician in order to attempt finding the pleasures of this profession.

Level: Competent

Theme: Attitude

The patient now becomes the focus for the competent clinician. To establish the therapeutic relationship, the clinician tries to relate to the patient in some way. Topics such as life events or family are discussed with the appropriate amount of disclosure on the part of the therapist. This quality of dialogue is the common mechanism used to engage the patient. The competent clinician is interested in what the patient has to offer to the situation through their discussion and has gained the insight that he can learn a lot about the patient by speaking with them. Additionally, the value of knowing the patient is recognized. The patient's goals are now the focal point of treatment rather than the goals established by the therapist depending on the patient problem and the corroborating scientific evidence. The competent clinician continues to search the evidence for the appropriate treatment strategies. The competent clinician also values the opinion of other more knowledgeable clinicians and includes this opinion gathering into his inquiry process. Confidence in himself and the decisions that he has made is evident.

Theme: Interaction

The competent clinician appreciates the availability of team member to brainstorm about a patient and gather innovative treatment ideas generated by peers and coworkers from other disciplines. The clinician seeks out knowledgeable peers not only to increase his own knowledge base but also to provide the best care options for his patients. Additionally, interaction with those involved in the care of the particular patient may not be on the level of consensus. The competent clinician is able to disagree with the clinical decisions being made or advise against a course of treatment outside of his scope of practice. The courage to put forth this advanced level of interaction is facilitated by the physical therapist's value of the patient's recovery process.

Theme: Performance

The competent clinician has now developed the skill to problems solve the unique needs of the patient but has difficulty disregarding irrelevant information. The attempt to gain the patient's trust through engaging in valuable but data mining

dialogue with patient may be the source of the irrelevant information. The clinician relies heavily on the objective data gathered during the examination to arrive at the proper diagnosis. The trap of over objectification creates a false sense of rigor within the examination. The treatment focus and direction is based solely on the patient's achievement of the established goals. The patient successfully achieves his previous level of function but is not brought beyond that point. The clinician starts to think in terms of the factor of function when analyzing the patient improvements. The clinician has also learned that admitting to the limitations of physical therapy and referring the patient out for more appropriate services is part of the scope the care.

Theme: Resource

The competent clinician readily dialogues with colleagues and superiors about his patients. This level of dialogue is expected to be present and consistent. Without the opportunity to brainstorm about a patient case with coworkers, the practice environment would be severely lacking in integrity. The opportunity to brainstorm and accept ideas is not limited to peers or superiors. Subordinates within the working environment also offer substantive suggestions to the treating physical therapist. The outcome of having resources as a clinician is to ultimately benefit the patient.

Theme: Measurement

The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in individual practice. One way of doing that is maintaining an active professional life. A good supervisor or company will provide an annual review process of the employed clinicians. Excellent samples are the Generic Abilities Assessment Tool or the Clinical Education Performance Instrument, both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full-time practice. Peers are also a genuine source of feedback regarding one's performance as they have worked with one over an extended period of time and through many experiences. The patient satisfaction survey or comments is also another source to gauge one's level of professional development pertaining to the general outcomes and also how one has impacted the patient's quality of life.

Theme: Productivity

Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the assigned workload creates a poor environment. The novice to the expert are burdened by these statistical requirements rather granting the clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment

within the time frame available.
Theme: Motivation
The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert. Motivation denotes one's potential ability to move through the five levels of professional development and must be seized by the clinician in order to attempt finding the pleasures of this profession.
Level: Proficient
Theme: Attitude
The patient is the primary focus of the interaction or treatment. The proficient clinician is concerned about the patient as a whole and what the patient's thoughts are about therapy in general related to recovery. The proficient clinician at this point finds the time to educate the patient in terms of the therapy process, the actual patient problems or injury, and what is the expected outcome. Conversely, the clinician is able to find meaning in the patient's comments by not only engaging in dialogue but also using the analysis of what the patient is saying as a data collection tool in order to better pinpoint the patient problem. The competent clinician does seek to validate the decisions that he has made by gathering the opinion of others and relying on experience and less by searching the scientific evidence.
Theme: Interaction
The proficient clinician at this stage has developed a significant quality of interchange over time within his practice environment. Interaction with physicians is usually frequent and direct. The physician usually looks to the proficient clinician as the physical therapist of choice for his patients, because there is a mutual respect for each other's work. Interacting with peers still means the giving and receiving of new ideas. Proficiency is not expertise and is not all-knowing in terms of information about a particular topic or treatment strategy. The proficient physical therapist, within his discipline, is open to sharing his knowledge with others but takes on more of the role of a facilitator of learning rather than just providing answers to questions.
Theme: Performance
The proficient clinician has developed his problem solving ability so that it is described as quick and focused. The clinician appears to know the answers to problems or has outlined the patient's problems without even completing the examination in its entirety. The value of experience, quick recall, and a history of positive patient outcomes allow the proficient clinician to move quickly toward resolving patient issues. The clinician is able to seamlessly integrate his knowledge with the data gathered about the patient and move in the appropriate direction of treatment or advise to the patient as necessary to promote proper carry over of lessons learned. The clinician is able to return the patient back to his previous level of function at a minimum, and usually is able to facilitate the patient to function at a level beyond that prior to injury. The proficient clinician has strong interpersonal skills and has the talent to be able to speak to patient at his level integral to superior

recovery.
Theme: Resource
The proficient clinician uses multiple avenues as resources. Peers, subordinates, and continuing education are the expected modes of learning. The proficient clinician also recognizes the patient as a resource. The clinician does not function and learn in isolation. Therefore, multiple resources have to be utilized for the clinician to advance his skills.
Theme: Measurement
The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in individual practice. One way of doing that is maintaining an active professional life. A good supervisor or company will provide an annual review process of the employed clinicians. Excellent samples are the Generic Abilities Assessment Tool or the Clinical Education Performance Instrument, both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full-time practice. Peers are also a genuine source of feedback regarding one's performance as they have worked with one over an extended period of time and through many experiences. The patient satisfaction survey or comments is also another source to gauge one's level of professional development pertaining to the general outcomes and also how one has impacted the patient's quality of life.
Theme: Productivity
Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the assigned workload creates a poor environment. The novice to the expert are burdened by these statistical requirements rather granting the clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available.
Theme: Motivation
The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert. Motivation denotes one's potential ability to move through the five levels of professional development and must be seized by the clinician in order to attempt finding the pleasures of this profession.
Level: Expert
Theme: Attitude

<p>The expert clinician is totally focused on the patient as a whole person. The expert is committed to doing whatever is needed to improve the patient's level of function and relieve the problems diagnosed. The expert clinician deals with patient directly, is empathetic, and appears to spend more time with the patient in comparison to the subordinate clinicians. The clinician appears confident, self-assured and unencumbered by time constraints, and appears to handle all facets of his job responsibilities with ease. He communicates with the patients so well that the client is not afraid to reveal anything to them. The patients tend to demonstrate admiration for this level of clinician. Despite this sense of elevation, the expert clinician is not all-knowing. The expert clinician consistently demonstrates information seeking behavior in his daily practice that includes not only researching a topic effectively but also relying on the experience of coworkers, which he explores by asking poignant questions.</p>
<p>Theme: Interaction</p>
<p>The expert clinician is a wealth of information, all-knowing, and willingly shares his skills with coworkers and subordinates. The expert clinician is constantly attending courses and immediately chooses to disseminate this new information to those in his practice environment. He also seeks to bolster the staff within his environment by building confidence and recognizing the efforts and growth of subordinates. In turn, the subordinate perceives their any interaction with the expert as a gain from someone who is fulfilling his expected role.</p>
<p>Theme: Performance</p>
<p>The expert does not rely on the medical diagnosis provided by the examination results of the medical doctor. The expert will examine the patient to his level of satisfaction, define the physical therapy diagnosis, and question the medical diagnosis as he matches his data to that presented by the physician. The expert is a master clinician and does not waste time within the examination or treatment sessions, at times robotic in his actions. The expert clinician as a master is able to discuss the reason why he chose a particular direction to treat in or a specific technique. The explanation for his actions is at the forefront of his thinking, and the ability to articulate of one's knowledge should be as distinctive as one's handling. The handling or manual treatment is the focus the expert's time with the patient. This hands-on approach requires that his demeanor not only be professional and trustworthy but also that he has to be approachable for both patients and clinicians alike. In a patient case outside his expertise, the expert may return to the novice level in order problem outside of his topic mastery.</p>
<p>Theme: Resource</p>
<p>The expert equates his scope and volume of continuing education opportunities with the level of his professional growth. The expert does not envision his knowledge base as being terminal but that his expertise is a continuing process that requires consistent maintenance. This maintenance is continuing education.</p>
<p>Theme: Measurement</p>
<p>The self-assessment process is critical to the realistic designation of one's level of professional development. There is no stepwise progression to or through these levels. The individual clinician is responsible for generating the impetus to develop professionally. The Vision 2020 statement discusses the responsibility of each</p>

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The results of the comparison and contrast of the two groups, using text interview examples surrounding distinct themes, produced the overarching notion that the physical therapist student or qualified professional was a clinician at all times. According to the expert exhaustive description, "The novice clinician is a student who is in his final clinical experience or is the early new graduate." The new DPT description also described the student as "the novice clinician."

While both groups focus on the inexperience of the novice, the difference demonstrated between the two groups was that the new DPT subjects considered the novice clinician, and the associated professionalism, as a student at the start of and throughout the education process. The new DPT statements describes the attitude of the novice clinician as follows:

The novice clinician is a student. His clinical experiences consist of the laboratory course work and the part-time clinical experiences all taking place within the academic semester. The student has no concrete patient experience. Upon his primary patient encounters, the student realizes that the patient is the source of his work and that the novice clinician's acceptance of the patient is crucial. The student has a complete lack of confidence in himself and his skills because he have no didactic basis for comparison or reference. The student is knowledgeable enough to recognize the base line status of the patient but not to be able formulate the reason for the injury or interpret his collected data. The student will ask for help from his clinical instructors and other available clinicians. As students advance through multiple clinical experiences, the questions from students tend to diminish. (p. 167)

The novice clinician process, as outlined by the new DPT subjects, begins as they learn while undertaking the job of their professional education, from day one of their academic professional experience as students. According to Flanagan (1954), prior to World War II, the training model was that those people who were entering a trade of work, or even the professional position of being a pilot, learned the actual job tasks within the working

environment itself, following the apprenticeship model, instead of a separate training facility, such as a school, college or university.

The new DPT orientation to the physical therapy curriculum and the associated manual practice, in addition to the significant body of theoretical knowledge, raises the notion of an apprenticeship experience for the physical therapy student already established as a novice clinician. The expert subjects discounted the majority of academic periods as contributory to any of the levels of professional development by the lack of any reference to curriculum or training in any portion of his exhaustive description. However, the expert subjects did include in the novice definition the students who had completed all of the course work and were now practicing within their final clinical experiences. The experts stated:

The novice clinician is a student who is in their final clinical experience or is the early new graduate. This clinician does not know the essence of the patient that he is working with in the immediate, or realize that he is blind to the patient. (p. 178)

At the opposite end of the spectrum, the expert subjects described the experts, within the theme of *resources*, as masters of their skills with an ongoing interest in continuing education. The expert subjects stated in the exhaustive description:

Continuing education is the window through which one acquires expertise and receives validation of one's expertise. The continuing education process contributes to how the expert defines his practice. Self-directed research through reading, review

of the evidence, and alignment with research-based resources is a requirement for learning, and additionally, defining one's practice. (p. 166)

In agreement, but with an extended explanation, the new DPT expects the expert to explain the reason for the chosen techniques to subordinates, indicative of a higher capacity of critical thinking beyond mastery and intuitive action. Their exhaustive description states:

The expert clinician is a wealth of information, all-knowing, and willingly shares his skills with coworkers and subordinates. The expert clinician is constantly attending courses and immediately chooses to disseminate this new information to those in his practice environment. He also seeks to bolster the staff within his environment by building confidence and recognizing the efforts and growth of subordinates. In turn, the subordinate perceives their any interaction with the expert as a gain from someone who is fulfilling his expected role. (p. 175)

To further discuss the expert's professional achievement, the new DPT chose to describe a cognitive of the cognitive thought process that occurs in conjunction with hands on treatment. The exhaustive description further states:

The expert clinician as a master is able to discuss the reason why he chose a particular direction to treat in or a specific technique. The explanation for his actions is at the forefront of his thinking, and the ability to articulate of one's knowledge should be as distinctive as one's handling. The handling or manual treatment is the focus the expert's time with the patient. (p. 175)

The role of the expert, according to the new DPT, though not in contrast to the expert perspective, is to value evidence-based practice and to function within a constant process of inquiry that is not only related to continuing education, but also learning from the work of others in their environment. The exhaustive description states, “The expert clinician consistently demonstrates information seeking behavior in his daily practice that includes researching a topic effectively, but also by relying on the experience of coworkers, which he seeks out by asking poignant questions.” Information seeking behavior by the expert includes the investment in continuing education which is viewed as an opportunity and ultimately a source of growth. The exhaustive description further expounds:

The experts equate their scope and volume of continuing education opportunities with the level of their professional growth. The expert does not envision his knowledge base as being terminal but that his expertise is a continuing process that requires consistent maintenance. This maintenance is continuing education.

The new DPT subjects have implicit in their explanations of the ongoing acquisition of knowledge, the ability to articulate that knowledge in order to maintain the expert level. At this highest level of professional development, the lack of this ongoing inquiry implied that expertise could diminish. The expert subjects, meanwhile, value the ongoing aspect of learning but do not rely on others, including subordinates, to learn and to articulate their learning as a practice of growth.

Regarding patient interactions and starting from the novice level, the new DPT characteristics viewed the patient and the understanding of that individual as integral to their

existence as clinicians. The expert characteristics described the patient as initially disconnected from the clinician's attitude and performance with a gradual consideration of the importance of the patient as the clinician emerged toward competence. They described this characteristic in the exhaustive description as follows:

The clinicians realize that the focus of the patient interaction and dialogue process is the patient. The clinician realizes the importance of knowing and understanding the patient, but it is skeptical whether or not the important patient features have been fully captured by the clinician.

The new DPT subjects appeared to have a distinct appreciation of the physical therapy core values (APTA, 2003c) and the "Guide to Physical Therapist Practice" (APTA, 2003b) decision-making model of evidence-based thinking in which the formulation of a physical therapy diagnosis was required. In the exhaustive description, they stated, "The Vision 2020 statement discusses the responsibility of each clinician within the profession to remain competent in his/her practice. One way of doing that is maintain an active professional life." According to the new DPT subjects:

The expert does not rely on the medical diagnosis provided by the examination results of the medical doctor. The expert will examine the patient to his level of satisfaction, define the physical therapy diagnosis, and question the medical diagnosis as he matches his data to that presented by the physician.

A particular understanding of the patient through an established therapeutic relationship was prerequisite to diagnosis. The act of formulating a physical therapy

diagnosis was an entity of practice introduced postprofessionally for most experienced clinicians credentialed at the master's degree level. Physical therapy diagnosis and the use of practice patterns as a framework for treatment planning (APTA, 2003b) was utilized by choice by the expert participants as a result of knowledge base growth acquired with continuing education. Evidence-based diagnosis was a requirement of the educational process for the new DPT subjects, and therefore, was an expected genre of thinking. The necessity of knowledge of the patient, as a component to critical thinking, in order to make the appropriate diagnosis and plan of care strategies, was therefore not a novel process for the new DPT subjects at any professional level, despite the constraints of inexperience. Accountability and advocacy are part of the educationally and legislatively influenced environment, standard for the new DPT subjects, that the expert subjects had to initially practice without, but ostensibly learn to adopt.

The necessity to interact with other clinicians was a certainty from the new DPT subject's perspective of the professional. However, the ability to be accountable for the comprehensive care prescribed and the desire to garner information to better advocate for the patient was acknowledged at the advanced beginner level as a task to be learned. In the exhaustive description, they stated:

The advanced beginner uses other clinicians as resources to validate his ideas and critical thinking. The loss of the guidance from the clinical instructor or mentor leaves the clinician to trust his own decisions, but sound advice from peers is welcomed.

According to the expert subjects, the characteristics of the developed *interaction* theme component to the exhaustive description of the novice and advanced beginner are not skills that are perfected with practice. These interaction skills are poorly developed and present as irresponsible encounters with patients. Arrogance and defensiveness were used to describe the novice and advanced beginner clinician respectively when the *attitude* and *interaction* themes were described:

Once the physical therapist is no longer a student, he become very quickly attuned to his short-comings, hence a sense of insecurity in his/her clinical decision-making ensues. The novice is defensive about his clinical decisions and clinical practice when questioned by any clinician (peers, supervisors, physicians) for any reason, even if the inquiry is meant to benefit the patient outcome. The novice clinician internally has no self-confidence as therapists.

The description continues:

The advanced beginner has now gained the confidence and a portion of experience. Any questions posed to their peers are now sophisticated enough to exhibit a perceived level of skill beyond that of the novice.

The *measurement* of one's abilities, or self-assessment of one's skills, is agreeably by both groups the responsibility of the individual clinicians to review and integrate into their practices. The expert subjects recognized that a national standard of assessment was necessary with input from others (peers and supervisors) both locally and from the facility, but did not state an example of a mechanism or measurement tool. Their exhaustive description states:

To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available. This document should be framed in terms of strengths and weaknesses without a time frame for accomplishment of a particular level, but a level of professional development self-determined... Because this process is significant, the governing bodies within the community or state should have a vested interest in the quality of the clinician's performance. An observation/feedback session would be of value to the interested clinician. The clinician would benefit from the recognition of his practice organization or company. Recognition of the clinician's accomplishments on an annual basis would benefit the clinician.

On the other hand, the new DPT subjects were able to immediately reference possible tools to assess performance:

Excellent samples are the Generic Abilities Assessment Tool or the Clinical Education Performance Instrument both utilized within the academic process of the DPT curriculum. These items should be adapted for use in full time practice. Peers are also a genuine source of feedback regarding one's performance as they have worked with the clinician over an extended period of time and through many experiences. The patient satisfaction survey or comments are also another source to gauge one's level of professional development pertaining to the general outcomes and also how the clinician has impacted the patient's quality of life.

These two tools suggested an included understanding and examining the presence of performance values (Generic Abilities Assessment) in addition to a performance evaluation

through critical observation (Clinical Education Performance Instrument). Unfortunately, the two tools are designed for use in the professional education process for students solely. It was concluded that the new DPT subjects already have an established framework for self-assessment that is actually a mechanism of self-policing one's practice. Devoid of the inclusion of the quality of the clinician's character as in the expert description, the concentration focused on true standardization of evaluation.

An additional area of characterization is *productivity*. Both groups agree regarding the negative element of practice productivity ratings or standards that impact the time allotted and the capacity to deliver quality care. The expert subjects were unable to move beyond the negativity of the element of productivity as a fact of life in current practice. Their exhaustive description states:

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care. Physical therapists are concerned about the quality of care they deliver and how they can contribute to the restoration of health for their patients. Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment. (p. 167)

The new DPT integration of productivity as a dimension of time efficiency spoke to the value of the time present, rather than the time lost from old practice patterns, before

legislative and educational changes, and more significantly before justification of care based on evidence. Their exhaustive description states:

The novice to the expert are burdened by these statistical requirements rather than granting the clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPT's have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available.

Furthermore, the survival of the clinic as a business entity has to be respected and consequently time allotted must be followed, regardless of the designs of the individual clinician or patient.

While both groups see clinicians as being responsible for their own professionalism and accomplishment of professional development, the new DPT group strongly portrayed clinicians as being accountable for their actions. A product of the DPT education and current practice environment, the new DPT subjects have not existed as clinicians outside that of evidence-based practice thinking. The expert subject group has had to make the choice to utilize evidence-based practice and function within the current environment.

In summary of the comparisons and contrasts between the two groups, significant points were made. While both groups focus on the inexperience of the novice as a professional development characteristic, the difference demonstrated was that new DPT

subjects considered the novice clinician (and the associated professionalism) as a student at the start of and throughout the education process and not as a function of employment.

An additional conclusion presented was that the expert subjects described the experts (within the *resources* theme) as masters of their skills with an ongoing interest in continuing education. In agreement, but with higher expectations, the new DPT expects the experts to explain the reason for conducting their choice of techniques to subordinates, indicative of a higher capacity of critical thinking beyond mastery and intuitive action.

In opposite poles, the expert subjects described the *interaction* skills of the new DPT as poorly developed. The new DPT clinicians present as irresponsible during encounters with patients. Arrogance and defensiveness were used to describe the novice and advanced beginner clinicians, respectively in terms of the *attitude* and *interaction* themes.

Interestingly, the *measurement* of one's abilities or self-assessment of one's skills was agreeably by both groups the responsibility of individual clinicians to review and integrate into their practices. It was concluded that the new DPT already has an established framework for self-assessment or self-policing, but this process was not a component of general work practice or assessment. The expert subjects had no framework of comparison.

Finally, the new DPT and expert subjects both viewed the scrutiny of productivity by supervising entities as a negative component of practice. The new DPT had a slightly less

negative perspective that was explained by his/her ability to see the integration of productivity as a dimension of time efficiency. The value of the time present, rather than the time lost from old practice patterns, and the provision of succinct and accurate care based on current evidence were some of the explanations given for the group difference.

Data triangulation

The intersection of the data from three different methodologies strengthened the research results and the credibility of the study. The reference conditions for triangulation (Patton, 2002, p. 247) via methodology utilization and data comparison were the research questions. The answers to the major research question (What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice?) were found in the data collected from the semistructured interviews by the mere fact that the interview responses were a sorted collection of the recalled events of practice by both the expert and new DPT subjects. The identified themes; associated exhaustive description; and the first and third chi-square analyses, GROUP by TRANSCOMP and GROUP by CONT ED RESOURCE respectively, showed agreement that the recall of critical incident formed the basis for the data by the significance of work events.

The subquestions (Do the Benner stages of professional development define the transition of the newly licensed DPT?) are answered by the identified themes; exhaustive descriptions; and specifically, Questions 1, 2, and 4 questionnaire results. The Benner framework characteristics for physical therapy were identified throughout the interview

discourse. The framework was verbally negotiated through the questioning process. The identified themes, such as *measurement*, noted that Benner's acknowledgement of five stages was a process that Benner observed through astute practice and was integral to self-assessment possibilities of the clinician. The survey provided the response that the subjects recognized the existence of the framework (Question 1) and that the concept of five frames of development was functional to their practices and the practices of other physical therapists (Question 2). Measurement of performance, again, characteristically was applied by the subjects to the possible alternatives to measure the level of therapist performance and as a common ground for reference and scrutiny of coworkers and superiors.

“Is the newly licensed DPT able to achieve stages beyond competence?” is answered by the exhaustive descriptions that discussed the characteristics of the new DPT as professionally developed to the proficient level. The answer to the question is yes, the DPT achieved the proficient level, one stage beyond the competence. This data was triangulated by the responses from Question 2 of the questionnaire for which the new DPT subjects described their level of professional development achievement at the proficient level statistically.

CHAPTER 5: DISCUSSION

The final chapter of this dissertation presents a comprehensive review of the major research question and subquestions. This chapter restates the research problem and discusses the methodology used in this study in sufficient detail to clarify the background, content, and analysis of the phenomenological data collected. Subsequently, the chapter outlines a summary of the results as the data answer the noted questions and culminates in the new areas of discovery as the research sought to answer the questions asked. The study results close the gap existing in physical therapy literature regarding the description of the evolution of physical therapy practice from a stepwise and successive perspective for the newly qualified clinicians possessing the doctorate terminal degree through the examination of the five levels of professional development as previously researched by Benner (2001). An unexpected, but valuable, product of this research is the Brooks conceptual model, a definitive, descriptive, working framework of the levels of professional development unique to the scope of physical therapy practice with similarly five levels in number as Benner's (2001) model. Additionally, the discussion portion of this chapter gives the community of readers, potentially not limited to the physical therapy profession, the opportunity to understand (a) the underpinnings of the research study conducted, (b) the garnered relationships with and insights about previous research in comparison to the current findings, (c) the unanticipated outcomes of the study, (d) the significance of the study, (e) the recognized implications of this information, and (f) the recommendations for further research that are necessary to expand and apply this work to physical therapy and similar professions.

Restatement of Problem

The intention of this study is to validate the five levels of professional development as presented by Benner (2001) for the physical therapy profession. The research major question is as follows: What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice? The subquestions include the following: Do the Benner stages of professional development define the transition of the newly licensed DPT? Is the newly licensed DPT able to achieve stages beyond competence?

The point of view of the term *professional development* and its characterizations employed by the APTA included “career planning” (APTA, 2003a, p.1) strategies, such as the achievement of board certification, or a particular job, such as an educator (APTA, 2003). Never addressed were the levels of professional development in a sequence or series of steps so that skill acquisition, a defined level of knowledge, and the amount of critical reasoning could be acknowledged and evaluated in conjunction with professional training and work experience. Through the validation of the five levels of professional development for physical therapy, a mechanism by which the definition of professional development moves beyond “career planning” (APTA, 2003a, p.1) would be developed to now include quality of experience, skill fulfillment, or achievement within characteristics of each stage or practice.

Physical therapy academic preparation, being viewed as a significant vehicle for the progression of the profession toward higher practice achievements, had evolved through “four distinct phases” (Jensen, Gwyer, Hack, & Shephard, 2007, p. 9) of educational history.

The first phase consisted of the “post graduate specialty training” (Jensen et al., 2007, p. 9) of the 1920s to 1950s. Secondly, the advent of the baccalaureate degree entry-level qualification occurred during the period from the 1950s to the 1980s. The third phase discussed the overlap of the introduction of the master’s degree as the entry-level credential with the baccalaureate entry-level degree from 1970s to 1990s. The fourth, and final stage, was the terminal clinical doctorate degree that became a clear and permanent component of the profession despite opposition (Jensen et al., 2007, p. 9).

The reasons that heightened the interest of this researcher in this area of study were related to the advent of the clinical doctorate degree as the entry-level of study for physical therapists as mandated by the APTA (2003a). The expectation of the profession was and is that all practicing physical therapy clinicians should possess a clinical doctorate degree by the year 2020 (APTA, 2000). This mandate raised many questions for the profession as a progressive discipline and for the individual practitioner who may or may not possess the clinical doctorate terminal degree. The gaps in physical therapy research, the historical events of the profession, the ambiguity of the professional development definition for the profession, and the significance of the changes in the levels of academic preparation have lead to the implementation of this research and the product of this body of work.

Review of Methodology

Implementation of this phenomenological study was framed by the mixed methods approach, using descriptive with quantitative components (Creswell, 2003). The inquiry sequence was “concurrent triangulation” (Creswell, 2003, p. 217) where the data yielded

from the study components were generated simultaneously. Qualitative and quantitative data were collected. Strategy convergence occurred during data analysis and the interpretation stage (Creswell, 2003, p. 217).

The data collected was synthesized and organized into themes using the Q Sort (Chinnis, 2001) method. Key thoughts and wording from the data, or practice characteristics, were identified. These practice characteristics were present repeatedly where response saturation was identified within the recalled events from subject. The NVivo 7 computer software tool was used to conduct the Q Sort process. It was chosen to provide a method of storage that could be easily reviewed and to support replication of this study. Frequency of occurrence of the identified practice characteristics between the two samples was analyzed by “applying the chi squared statistic” (Portney & Watkins, 2000, p. 537). Component to the data triangulation was the comparison of the themes. The “questionnaire survey” (Czaja & Blair, 1996) formulated from the themes.

Summary of Results

The focus of this section is to present a summary of the research results per the three methodologies: exhaustive description, survey, and chi-square analysis. The study findings are presented within each methodological section in a segmented fashion because each result was extracted from the body of work at large as it was generated.

Exhaustive descriptions

The development of the themes facilitated a clear process of writing the exhaustive descriptions, which are an aggregate of the themes, for each group (the expert and new DPT subjects). The identified themes were (a) attitude, (b) interaction, (c) performance, (d) resources, (e) measurement, (f) productivity, and (g) motivation. The discussion and explanations of the results were the content of the exhaustive descriptions.

The exhaustive descriptions for each group, the expert and new DPT subjects, were detailed descriptions of the physical therapy characteristic as documented in Chapter 4. These characteristics described by each group were written distinctly for each level of professional development so that the group differences would be evident. The descriptions gathered around the measurement, productivity, and motivation themes did not change between the five levels, but were presented by the researcher as given by the subjects.

In reference Tables 4.17 and 4.18, these tables show the exhaustive descriptions discussed by the expert and new DPT subjects and how they were organized into the Benner (2001) construct. These exhaustive descriptions are the defining characteristics that had been collected, interpreting the information for the physical therapy profession. A comparison and contrast of the identified characteristics was acquired through this research.

The results of the comparison and contrast of the two groups revealed the overarching concept that the physical therapist student or qualified professional was a clinician at all times. Both groups focused on the inexperience of the novice. However, the difference

that emerged was that new DPT subjects considered the novice to be a clinician. The new DPT subjects further described the novice clinician as being a student going through the professional education process. The expert subjects lacked reference to curriculum or training in any portion of their exhaustive description. The expert subjects did include in their novice characteristics the student who had completed all of the course work and was now practicing within the final clinical experience just prior to graduation. This information is important, because the student being considered a clinician, and thus, a professional, is a departure from the traditional perspective. Tradition assumes that clinicians are a people who are qualified to practice in their profession after education and receipt of credentials.

The new DPT subject perspective of the physical therapy curriculum raised the possibility of the professional education process as being an apprenticeship type model through the associated psychomotor practice and the significant body of theoretical knowledge being taught. The expert subjects, again, as in their lack of curriculum reference, discounted the majority of the academic process as significant to building toward any of the levels of professional development. The expert subjects, therefore, did not view the academic process as being integral to training or apprenticeship. These subjects failed to identify and discuss what role academics played in the development of the physical therapist.

Addressing the opposite end of the levels of professional development spectrum, the expert subjects described their level of professional development. As described, the expert has an ongoing interest in continuing education within the *resources* portion. In agreement, the new DPT subjects expand upon the explanation. The new DPT subjects expect the

experts, at their development stage, to explain the reason for conducting their choice of techniques to subordinates, indicative of a higher capacity of critical thinking beyond mastery and intuitive action. The role of the expert, according to the new DPT subjects, though not in contrast to the expert subject's perspective, is to value evidence-based practice and function within a constant process of inquiry. Evidence-based practice and function was not only related to continuing education, but also to gathering pertinent information from the work of all levels of staff in the environment. The experts are expected to gather resources; to reason critically; to articulate their knowledge for all levels to understand, including patients; and ultimately, to share skills and resources learned within the prescribed environment.

The new DPT subjects have implicit in their explanation of the expert level of professional development the ongoing acquisition of knowledge and the ability to articulate that knowledge. At this highest level of professional development, a lack of this ongoing inquiry implied that expertise could diminish. The expert has the potential to lose this stage of professional development and drop to any of the levels below, from proficient back to novice. This implication speaks to the expectation that skills and mastery are dynamic processes and must be cultivated in some manner. The expert subjects, meanwhile, value the ongoing aspect of learning but do not rely on others, including subordinates, to learn and articulate their learning as a practice of growth.

To return to the novice level, the new DPT subjects' characteristics viewed the patient and the understanding of that individual as fundamental to their continuation as a clinician. A particular understanding of the patient through an established therapeutic relationship was

prerequisite to diagnosis. Evidence-based diagnosis was a requirement of the educational process for the new DPT subject, and therefore, expected in the critical thought process. The expert subjects described the patient, at the novice level, as initially disconnected from the clinician's *attitude* and *performance*, with a gradual consideration of the importance of the patient as the clinician emerged toward competence.

The necessity to interact with other clinicians was a guaranteed activity for the new DPT subjects' perspectives of the professional. The ability to be accountable for the comprehensive care prescribed and the desire to garner information to better advocate for the patient was acknowledged within the exhaustive description at the advanced beginner level as a task to be learned. The new DPT subjects appeared to have a distinct appreciation of the physical therapy core values document (APTA, 2003c) and the "Guide to Physical Therapist Practice" (APTA, 2003b) decision-making model of evidence-based thinking. Evidence-based diagnosis contributed to the overall critical thought process about the patient and the formulation of the physical therapy diagnosis. Knowledge of the patient as a component to critical thinking necessary for diagnosis and plan of care strategies formulation was not a novel process for the new DPT subjects at any professional level, despite the constraints of inexperience. Accountability and advocacy are part of the educationally and legislatively influenced environment for the new DPT that the expert subjects had initially practiced without, but ostensibly learned to adopt. Conversely, according to the expert subjects, the characteristics of the developed *interaction* theme component to the exhaustive description of the novice and advanced beginner are not skills that had emerged within these primary levels of practice. Arrogance and defensiveness were used to describe the novice and advanced

beginner clinicians' irresponsible encounters with patients indicative of lack of self-awareness and self-centeredness.

Both groups agreed that the *measurement* of abilities, or self-assessment of skill acquisition, was the responsibility of the individual clinicians to review and integrate into their practices. The expert subjects recognized that a national standard of assessment was necessary with input from others (peers and supervisors) both locally and from the facility but did not state an example of a mechanism or measurement tool. The new DPT group was able to immediately reference possible tools to assess practice performance. Unfortunately, the two tools referenced were used only in academia, but remained viable suggestions to understand and examine the value of performance. It was concluded from the suggestion of the two performance tools that the new DPT already has an established framework for self-assessment that is actually a mechanism of self-policing one's practice.

An additional area of characterization was the theme of *productivity* that held the same exhaustive description for all levels of professional development unique to both groups. The new DPT subjects' integration of productivity as a dimension of time efficiency spoke to the value of the time present and the survival of the clinic as a business entity rather than the time lost from old practice patterns.

While both groups see the clinicians as being responsible for their own professionalism and professional development, the new DPT group strongly portrayed clinicians as being accountable for their actions. A product of the DPT education and current

practice environment, the new DPT subjects have not existed as clinicians outside of evidence-based practice thinking. The expert subject group has had to make the choice to utilize evidence-based practice and function within the current environment.

Chi-square

This research study, being mainly descriptive, warranted the use of a statistical application such as the chi-square analysis “test for independence” (Portney & Watkins, 2000, p. 544) in order to pursue data triangulation. This researcher analyzed for association between two categorical variables, presence or none. The association is based on the [frequency] of individuals who fall into that category” (Portney & Watkins, 2000, p. 544). The data for this application was derived from subjects whose “classifications” (Portney & Watkins, 2000, p. 544) were determined by this researcher to be derived from the meaningful statements identified from the coded data. “The characteristics being measured” were distinctively “defined,” thus eliminating the event of “assignment overlap” (Portney & Watkins, 2000, p. 538).

The chi-squared (χ^2) statistical analysis was chosen to analyze the frequencies or count of the coded responses that fell into the categorical variables, expert and new DPT. To display the data being calculated via the SPSS program, a “two-way (2 X 2) fixed model matrix or contingency table” (Portney & Watkins, 2000, p. 548) was arranged within the program. Three analyses were calculated for this study in which the variables were assigned by the researcher based on the research question and results. The chi-square characteristics chosen for analysis were TRANSCOMP, transitional events for the competent clinician or

critical incidents; TIMEFRAME, the time frame of achievement of the professional levels; and CONT ED RESOURCE, continuing education as a resource to the competent clinician.

The TRANSCOMP chi-square result as referenced in Chapter 4, per the major research question, suggested critical incidents inform professional development. Via a transitional event or events (critical incidents) that take places, the new DPT achieved the competent level of professional development or higher. The TIMEFRAME chi-square characteristic satisfied through data triangulation that movement to and through the levels of professional development progressed per the individual therapist without an established time frame. The CONT ED RESOURCE characteristic addressed that continuing education is a resource to the competent clinician. This finding was triangulated with the results of the *resource* theme.

Survey analysis

The survey process was used in this study as a data collection mechanism. In addition it was used as a strategy to strengthen the overall methodological procedure and to find agreement, or triangulation, with the exhaustive descriptions and chi-square analysis results. The survey focused on poignant questions utilized in the new DPT subject data collection portion of this research study.

Question 1 revealed that all 12 new DPT subjects through previous exposure associated the Benner descriptors of the five levels to the characteristics and the purpose of the Generic Abilities Assessment tool (May, Morgan, & Lemke, 1995; see Appendix I), a

method of measuring the affective domain or professional behavioral skills for physical therapy students. The results from Question 2 showed that the majority of the new DPT subjects viewed their professional development levels spanning across more than one level, mostly placing themselves at or beyond the competent level (see Figure 4.17).

Question 3 requested the recall of critical incidents regarding advancement strategies. Three themes were identified: interaction, performance, and resource. The triangulated comments from all three data collection methods cited experience as being the major strategy for advancement. Self-directed study ranked second, and specific interaction with physical therapy colleagues and supervisors ranked third. Question 4 was directly triangulated with the measurement theme. The majority of new DPT subjects viewed self-assessment as the appropriate method of measurement. Peer and supervisory input was also important, and additional sources of assists would be comments from a knowledgeable therapist or measurement scale.

Questions 5 and 6 were incorporated into the survey methodology to support the notion of experience, meaning that the new DPT clinician, compared to the expert physical therapist, treated less complex patients, in terms of diagnosis and subsequent treatment, on a regular basis. Question 7 addressed how new DPT subjects interacted with the patients that they have treated. Mainly through dialogue, the new DPT subjects revealed they would allow the patient to lead the conversation, assuming that interaction meant discussion. Active listening, requiring analytical skill, was the least reflected in the new DPT subjects' responses, potentially due to the lack of experience.

Interpretation of Findings

The interpretation of findings portion of this chapter explains why the key findings were captured by this study. Any supporting literature highlighting similar peer reviewed studies or results that bolster the findings are reported. First, the general observations made about the study are mentioned. The second portion of this segment presents the nine key findings identified in the study results and presents the interpretation of the research through data triangulation and descriptive comments. The key findings, although related to the overall integrity of the study, appear to be separate and disjointed paragraphs in certain areas but are connected in the exploration of the conceptual model, presented in the third chapter segment.

General observations

First to be established by this study was the ability to generalize the five levels of professional development to physical therapy. The largest and most obvious finding was the ability of the clinician subjects to use the scaffold of the five levels of professional development. Within the use of the scaffold, the subjects were able to find applicable descriptors for each of the stages. These descriptors were discipline specific, because they were brought to light through the clinical experiences and associated practice language of the subject. These clinical experiences were framed in actual events that were meaningful to the subject. By definition, according to Flanagan (1956) and as applied in Benner's (2001) research, these meaningful experiences, recalling practice life, were entitled critical incidents. The stages of professional development descriptors from nursing were used only as examples that did not apply to the physical therapy practice and the skill achievement associated with the profession.

As established by the research conducted by Benner for the nursing profession, the five levels of professional development were first devised by Dreyfus and Dreyfus's (1986) research in which professional development was first recognized as an evolution of growth. The original framework stemming from the aviation profession has been applied to engineering, education, and medicine, and nursing. Dreyfus and Dreyfus's original research was conclusive to present the five levels of professional development in practical terms with minimal elaboration, critical thinking, performance, and skill acquisition, in terms of actions that could be discipline specific. The aviation profession's focus on the elevation and the location of training (no longer occurring comprehensively on-site) surrounded by the changes that had taken place at the advent of the information age was the impetus for Dreyfus and Dreyfus's research. The application of their levels to other professions, such as nursing, caused the modification of the definitions of the five levels (Dall'Alba & Sandberg, 2006). The professional tasks of the new professions involved human and technical engagement. The discipline-specific introduction of skill achievement, related to an emotional response and a personal interconnection as keys to the professional growth process, presented a significant difference in the application of the Dreyfus and Dreyfus framework and in the ability to generalize the grounded theory to other and differing professional processes (Dall'Alba & Sandberg, 2006).

Important to note is that this researcher assumed the Benner (2001) framework of the five levels of professional development, using critical incidents to recall practice events, was the structure to follow for this study. This assumption was based upon the critical review of the literature revealing how the Benner structure was developed for the nursing profession

and how close the nursing practice was to the physical therapist practice compared to other disciplines referencing the five stage structure. The reason the Benner (2001) nursing framework was chosen as the scaffold for this study was due to the comprehensive nature of the research conducted by Benner, herself, the phenomenological emphasis of the research, the explanation of the professional process through practical experience events, and the use of critical incidents or those recalled events that were deemed important and common to the practicing professional. Within the examination of the physical therapy profession, similarities had to be present in order for the descriptive definitions of the five levels to be closely relevant and possess the characteristics of practice and practice environment that could be compared or used as a starting point of understanding. Evident in the research results of this study was the understanding of the practice differences between physical therapy and nursing. The subjects were able to conceptualize the differences, and therefore, understand why the potential use of the five levels of professional development as a scaffold could be applicable to physical therapy. However, the research was needed to validate this scaffold for physical therapy. Hence, the research conducted was logical and the original assumption proved to be correct.

Key findings

The first key finding to interpret includes the first chi-square analysis. This first chi-square analysis found that the critical incident does inform the development of the new DPT to the competent level, which describes the transitional events of achievement. For example, the new DPT subjects stated:

The competent clinician has now developed the skill to problems solve the unique needs of the patient but has difficulty disregarding irrelevant information. The attempt to gain the patient's trust through engaging in valuable but data mining dialogue with [the] patient may be the source of the irrelevant information.

The "triangulation of the data" (Patton, 2002, p. 247) was undoubtedly demonstrated with the documented responses to Question 3 of the survey and the litany of comments within the exhaustive descriptions. For example, in the new DPT exhaustive description, the following is stated, "The competent clinician readily dialogues with colleagues and superiors about his patients. This level of dialogue is expected to be present and consistent."

The available literature addresses the significance of the critical incident and how it is used to describe and document achievement of levels of professional development. Norman et al. (1992) supported Flanagan's (1954) critical incident technique as an indicator of quality of performance. Norman et al. stated that when assessing performance, "any observable human activity that is sufficiently complete in itself to permit inferences and prediction to be made about the person performing the act" (p. 591) provides a "valuable description of the characteristic actions" (p.595). The study suggests that when a practice action is recalled, discussed, analyzed, and then, finally, compared to other actions, the professional growth and current level of professional development of the clinician is revealed.

The critical incident recalled by the individual clinician describes one's achievements. When discussed in timely framework or placed within a work portfolio, these critical incidents show how one achieves the level of professional development described. The *how* of skill achievement can only be described by the occurrence of sentinel events in practice and the surrounding circumstances of learning. At first these occurrences may appear to be general actions but become more valuable upon reflection in the context of comparison to other events. The critical incident examined in terms of practice should be a crucial tool used by the physical therapist as proven by other key professions utilizing the Benner (2001) framework. The critical incident as a construct has answered the research question, "What are the critical incidents within the outpatient work setting that encourage the transition of the newly licensed DPT clinician from the novice to the competent level of practice?"

According to Wilkinson et al. (2002), a portfolio used to document critical incidents is a "pathway to excellence for the medical profession" (p. 919). The portfolio is a journey that consists of learning experiences and learning cycles that when viewed in a "summative context" (p. 921) are an assessment of learning and behavior. Wilkinson et al. (2002) suggest in their key learning points that the:

portfolios will influence professional behaviors when used in a summative context so they must be carefully specified in order to reinforce best practice professional development... to ensure that a certain minimum standard of practice has been surpassed for an individual [clinician]. (Wilkinson et al., 2002, p. 919)

In the second key finding, the third chi-square comparison sought to look at the significance of continuing education as a resource to the competent clinician. Continuing education is key to the definition of the competent clinician as validated by the data triangulation agreeing with the qualitative data--the exhaustive descriptions of the competent clinician from both subject groups.

Because of the evolution of the physical therapist practice was a major reason for this body of work, the clinician recognized and looked to the available resources to problem solve. The professionally developing clinician, by training and inclination, recognizes the value of current resources, such as continuing education, and has acquired the discernment of recognizing the quality of the available scientific evidence, especially within the doctorate professional course work that contains specific core subjects about the analysis of the evidence-based medicine. Moving away from the “opinion based decision” (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000, p. 6) to the now accountable process of a substantiated progression was based on clinical decision-making. The justification of intervention discussed in terms of the history and evolutionary changes in physical therapy as an expectation of practice has now woven its way into the practice descriptors and quantitative analysis itself. Handfield-Jones et al. (2002) discuss the merits of continuing education or educational activities that are evidence-based as a mechanism to assess and achieve desired practice (p. 952). Within the Handfield-Jones et al. study, critical incidents of individual pediatric physician practice were used as the identifiers of the characteristics of practice and the description of the desired competence.

The exhaustive descriptions generated from the research conducted with the two groups, expert and new DPT subjects, provided a significant amount of comparison and contrast. This comparison and contrast provided the ability to reference the many arenas of objective and evidenced literature that have surprisingly contributed to the explanation of physical therapist practice. The literature review also explains the skills of the clinician including affective (Bloom, 1980) skills of patient interaction and intellectual skills (Dreyfus and Dreyfus, 2005), such as critical reasoning. The literature was able to provide other theoretical examples from other professions to explain such issues as education and practice, and ultimately, explain how the clinicians developed professionally through the five levels of professional development.

The third key finding to be discussed addresses the exhaustive descriptions. The differences were outlined per group as to when and where clinical practice began, which resulted in the characteristics of the novice. According to the expert exhaustive description, the novice is “the early new graduate” or the “student in his final clinical experience.” The novice is “unable to consider the effect of injury for this patient” and is “insecure” and “defensive.”

In contrast, the new DPT characteristics of the novice grounds the student experience as the basis for this level of professional development, in which “no concrete patient experience” is the frame of reference for the novice initially. As the novice attends orchestrated clinical experiences or internships as the curriculum allows, the significant

difference according to this subject group is that “the patient is the source of his work and that the novice clinician’s acceptance of the patient is crucial.” Despite having:

no didactic basis for comparison and reference... the student is knowledgeable enough to recognize the basic status of the patient but not able to formulate the reason for the injury or interpret his collected data... the student will ask for help... and as [he] advances through multiple clinical experiences, the questions... will diminish.

This interconnection with the patient and critical practice was described by Sackett et al. (2000); the patient-centered approach was significant to evidence-based medicine. Sackett et al. stated in their definition of evidence-based medicine, “By patient values, we mean the unique preferences, concerns and expectations each patient brings to a clinical encounter and which must be integrated into a clinical decision if they [the clinician] is to serve the patient” (p. 1). The notion of evidence-based practice is an integral part of the DPT education and practice process in comparison to the expert subjects who evolved as practitioners with the evolution of the profession outlined by the legislative history. By nature of the current education process, the integration of evidence-based medicine within the framework of physical therapy and practice demands, the characteristics and progression of the individual physical therapy student or clinician is accelerated leading to the difference in the perspectives of the novice. Additionally, the APTA professionalism in physical therapy core values document (2003a) directly address the evidence-based practice requirement of the doctoring professional as an expectation of practice.

The characteristics shown in this body of research indicates that the new DPT training has brought the process of professional education back to what this researcher perceives as apprenticeship model as described by (Flanagan,1952). The skill acquisition of “knowing that” theoretically to “knowing how” with experience and instruction were not uniquely separate entities (Dreyfus & Dreyfus, 1986, p. 19). The professional education is viewed by the new generation of clinicians as an inclusive training ground indicating the new clinicians do not detach the workplace completely from the educational institution. This phenomenon is a product of the change in the training venue for the new DPT, different from that of the expert clinician who saw the graduating students potentially looking toward job placements, putting the academic process behind them in their final clinicals. Connecting to the context of this research, the patient-centered orientation of knowing the patient, but not necessarily knowing what to do with the patient; or concretely having a connection to the product, the relationship with the patient, is an action of the apprenticeship mode of learning (Purtilo and Haddad, 2002).

In a study conducted by Collin and Tynjala (2003), in the training of educators in the workplace component, the opinions of employees and students regarding the value and location of learning to perfect professional and vocational expertise was explored. One significant outcome of the study was that the employees viewed learning in the workplace, or clinical experience, as separate entities and as different stages of professional development from the classroom experience. In contrast, the students viewed the academic, professional course work as seamless with the clinical experience and as one stage of professional development. The explicit knowing what, or book knowledge, to implicit, tacit knowing how,

according to the student, took place in the novice and student educational stage while student was placed in practice situations that required problem solving, such as the curriculum orchestrated clinical internship.

Dreyfus and Dreyfus (1986) speak to the five levels of professional development in their original work as being a product of the machine age during which the limits of the computer simulation, replacing traditional training strategy, begged the question of how skill was acquired by the human being. The discussion of the rules-based detached process of the novice in which knowing that dominated, strongly supports the notion that by definition the DPT student is a novice clinician (Dreyfus & Dreyfus. 1986, p. 19). The recognition of the patient, the product, as significant to one's existence shows that the physical therapy student can demonstrate signs of transition to the advanced beginner prior to qualifying for credentialed practice.

Conversely, in this fourth key finding, the mastery of the expert level of professional development was addressed by this research and noted to be a key issue for discussion. The exhaustive description of the expert subjects presented that "continuing education is the window through which one acquires expertise and receives validation of one's expertise." The new DPT characteristics of the expert express further the facts of "quality and volume of continuing education opportunities" equal with "his level of professional growth." Indicative within the description is the fact that the expertise of the expert is a dynamic process requiring preservation or ongoing inquiry, in order to continue being an expert.

While the expert group described the expert function in terms of inquiry as “self-directed... and willing to share knowledge,” the exhaustive description of the new DPT group spoke of improving the practice environment with the expert’s knowledge and raising the level of subordinates; the “subordinates perceive his interaction with the expert as a gain from someone who is fulfilling his expected role.” In a study of continuing education of medical doctors, D’Alessandro, Krieter, and Peterson (2004) described similar “information-seeking behavior,” which is ongoing and used in a prescriptive manner. The quantity and efficiency of the information-seeking behavior was improved following continuing education for a group of young pediatricians in comparison to their older counterparts consisting of general practitioners, family practitioners, and internists. The inquiring pediatricians had consistently high rates of inquiry at baseline and after intervention and the impact of finding answers affected the patient outcomes positively. Within the discussion of the five steps of practicing evidence-based medicine, Sackett et al. (2000) remark that the fourth step includes “integrating the critical appraisal with our clinical expertise and with our patient’s unique biology, values and circumstances” (p. 4). Sackett et al. goes on to include in the fifth step “evaluating our effectiveness and efficiency... and seeking ways to improve them both for [the] next time” (p. 4). Both bodies of work speak to information-seeking, evidence based behavior as mechanisms of true improvement in patient outcomes, effectiveness and efficiency.

Additionally, the next and fifth key finding, the master or expert clinician conducting one’s work at the intuitive level without necessarily articulating one’s critical decision-making or psychomotor actions is disputed by this body of research. The research conducted

in the arena of metacognition discusses that the learner “recognizes, evaluates and reconstructs existing ideas... mental processes that help to orchestrate problem solving” (Georghiades, 2004, p. 365). Georghiades (2004) explores the definition of metacognition through the historical work of noted researchers, such as Flavell and Dewey. In his work Georghiades goes on to discuss that “meta-cognition takes as its object or regulates any aspect any cognitive endeavour.... The meta-cognitive learner is capable of both stating knowledge about cognition and regulating such knowledge.” (Georghiades, 2004, p. 372).

In this research, the new DPT subjects presented that the higher level thinking of the expert includes the highest level of metacognitive thinking. The expectation and noted result is the expert’s articulation of one’s problem solving strategies. Schon’s (1983) early work discussed the intuitive “knowing in action” (Waters, 2004, p .631) in which the expectation is that the expert practitioner is unable to verbalize “skillful execution of performance” (Waters, 2004, p. 632). According to the new DPT subjects, the expert functions beyond the intuitive level disputing Schon’s theory. DPT Subject 206 stated, “The expert clinician can explain - obviously deduce and understand all knowledge, but explain it to the next person so that they can then become an expert.” As another example, DPT Subject 210 stated:

They [experts] just have so much experience under their belt that even anyone just below them will go and ask them for help. There are clinicians who I have worked with for five and ten years experience and they will ask the clinician questions. They still have an answer for everything.

The inarticulate and intuitive expert was the description provided by the expert subjects, which followed the previous and traditional theoretical structure. However, the concept of expertise has changed within the profession.

The focus of the sixth key finding was that of one's abilities or self-assessment of one's skills, was agreeably by both groups the responsibility of the individual clinicians to review and integrate into their practices. The expert subjects recognized that a national standard of assessment was necessary, locally and from the facility, but did not state an example of a mechanism or measurement tool. The expert subjects also spoke to the quality of the characters of the clinicians who wished to assess themselves honestly and possessed self-awareness. Within the expert exhaustive description, they stated:

The quality of one's character may be a stumbling block to honest assessment, but this profession, as any, is composed of people with differing self-assessment skills. To facilitate the self-assessment, a guide or object list of items should be nationally standardized and made available.

Kruger and Dunning (1999) suggest that the to be unable to self-assess, to potentially inflate one's skill level, and to be unaware of one's performance limitations is linked to the subject's lack of metacognitive skills surrounding competence in performance and ability to complete the task at hand. Kruger and Dunning tested knowledge base, common sense, and reasoning specifically in their study. Kruger and Dunning were able to equate incompetence with not only the lack of skill but also with the lack of recognition of incompetence, using the

examples of the competent professional as the benchmark. In addition, they concluded that this incompetence is a psychological flaw.

The new DPT subjects are in agreement with the responsibility of self-assessment through a measurement mechanism. This notion is in alignment with the position encouraged by the legislatively influenced practice environment and the integration of assessment tools within the education process. Different than the expert generation, the new DPT subjects and their contemporaries have had the benefit of education revisiting, and thus reemphasizing, the reflective theories of Schon (1983). Combined in the current professional curriculum are the leadership theories substantiated by the doctoring professional expectations as promoted by Schein (1992). The “artifacts, espoused values and underlying assumptions” (Schein, 1992, p. 17) of the physical therapy organization and that of the component practice environment includes artifacts such as the place of the physical therapist in the role of care, what the clinicians say and their general actions, the espoused values of competent autonomous practice, and the underlying assumption that the clinicians are active within their professional lives.

The exhaustive description from the new DPT subjects stated in part, “The self-assessment process is critical to the realistic designation of one’s level of professional development.” In this research, no stepwise progression to or through these levels was found. The individual clinician is responsible for generating the impetus to develop professionally. APTA’s 2020 vision statement discusses the responsibility of each clinician within the profession to remain competent in his practice. One way of doing this is to maintain an active

professional life. A good supervisor or company will provide an annual review process of employed clinicians. Excellent samples are the Generic Abilities Assessment Tool (May et al., 1995) or the Clinical Education Performance Instrument (Gandy, 1997), both of which are utilized within the DPT curriculum. These items should be adapted for use in full-time practice. DPT Subject 204 stated:

I think it should be both to tell you the truth [self assessment and formal review]. I thought I really got a lot out of both, writing down what I thought I was, you asking me the questions, and then hearing your perspective as far what the certain words meant as far as you know, seeing the maxim – think that helps.

In the seventh key finding, a problematic point of focus was the characterization of productivity that held the same exhaustive description throughout the five levels of professional development uniquely. Both groups had differing descriptions, but each generation agreed that productivity held the same value for all levels. The groups agreed on the negative element of practice productivity ratings or standards that impact the time allotted and the capacity to deliver quality care. The expert subjects focused on the fact that productivity had been negatively applied to practice, falling short of accepting productivity statistical examination of one's patient volume as a fact of life. In their exhaustive description, the experts explained the negative implications of productivity:

Productivity has a negative connotation for clinicians across all settings due to the constraints imposed on care by the business of health care... Productivity is an inverse relationship to quality. In the eyes of the physical therapist, productivity speaks to how efficiently one can return the patients to their previous levels of

function. Productivity should be equated with going beyond the average responsibilities required within the daily tasks of the practice environment. (p. 167)

The new DPT subjects' integration of productivity as a dimension of time efficiency spoke to the value of the therapist's time within the management process and potential success of the entire organization, rather than just the practice needs of the individual. In their exhaustive description, the new DPT subjects explained:

Productivity is a business construction of the health-care industry that represents dire consequences for the quality of care provided and the sanity of the clinician. The pressure to see as many patients per day and the consistent scrutiny by management to meet the assigned workload creates a poor environment. The novice to the expert are burdened by these statistical requirements rather than granting the clinician the freedom to see as many patients as possible while providing quality care. The notion of time is important to the function of any outpatient department. DPTs have been trained to respect the time allotted within the clinic and value the time that the patient spends receiving services. Therefore, a healthy notion of time to be included in the necessary productivity mix should include efficient treatment within the time frame available. (p. 175)

The difference in the focus of the descriptor provided by the new DPT group speaks to the leadership qualities that the DPT clinician may have as an expectation of practice and the practice environment. The clinic as a business entity is recognized in new DPT exhaustive description, where time, company, and patient time are integrated with the issues

of the constraint of practice autonomy. Per the explained shift in the academic preparation and the underpinnings of the practice environment, the difference in considerations of the new generation of practitioner demonstrates a certain level of practice maturity in a less than ideal situation. The new DPT subjects have not existed as clinicians outside that of evidence-based practice thinking. The expert subject group has had to make the choice to utilize evidence-based practice within the current environment.

For the eighth key finding, the motivation of the new DPT presents the clinician as follows:

The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient.

Motivation is equally as important for the novice as it is for the expert and potentially even more so for the novice. The novice has no physical therapy foundation to reflect upon or apply to bolster their mindset. Motivation denotes your potential ability to move through the five levels of professional development and must be seized by the novice in order to attempt finding the pleasures of this profession.

While the new DPT subjects describe motivation as being all or none, the expert subjects are less harsh in the description indicating lack of motivation will stop the individual clinician from progressing through each of the stages. The expert subjects do not give a level of importance to motivation distinct or different for any of the five phases. The new DPT

subject has a more sophisticated definition, in that it explains the equal significance of motivation for all of the levels and why.

One of the last unique points, the ninth key finding, to be made by this body of research, though obvious in the perspective of work and experience, was not assumed. Questions 5 and 6 were incorporated into the survey to address the belief that the new DPT subjects treated less complex patients than the expert physical therapists. Therefore, the supposition was that the expert clinician treats complex cases on a regular basis. The new DPT subjects reported that mostly no case was typical as expected. Conversely, the expert subjects did not perceive any of the cases categorized by the new DPT subjects as complex, demonstrating the advanced nature of the expert practice levels. The conclusion to be made from this information is that the experts do possess more experience and have acquired more skills than the new DPT clinicians.

This context speaks to the amount of learning or skill difference between the two groups. Skill acquisition, being a major definition of the professional development levels within the arena of cognitive psychology and motor learning, discusses that there are three phases of skill development: cognitive, associative, and autonomous (Schmidt & Lee, 2005). In the early stages of learning a task, all actions are rules-based and are concerned with what is the pattern of action. For the learner, deviation from a set map or protocol is inefficient. In the associative stage, the learner starts to make adjustments to the basic skills learned to complete a task and the focus now becomes how to conduct varying strategies to problem-solve and complete a particular task. In the final stage of learning and practice, the automatic

performance of a task is discussed as being of the highest level and the learner can appear to be potentially multitasking or solving multiple problems, while still being focused on a particular goal (Schmidt & Lee, 2005, pp. 402-403). Two “interdependent processes of explicit and implicit [conscious and unconscious] learning take place in parallel” (Carr & Shephard, 2000, p.137) as a result of engagement in practice. Individual differences in learning and level of skill acquisition are influenced by such issues as the environment in which one is trying to function and the quality of feedback given to the learner. Restructuring of the learning environment, giving of feedback during a task (knowledge of performance) to facilitate error correction, or giving feedback at the end of a task (knowledge of results) in summation of the outcome influences the skill acquisition of the learner, who in this case is the physical therapist (Carr & Shephard, 2000, pp. 170-171).

The perspective of case complexity, in terms of diagnosis and treatment, and the amount of problem-solving involved for the new DPT subject versus the expert subject is evident. By noting the ease of function with the patient based upon the level of skill and the amount of skill acquisition that has taken place, complexity is well handled by the expert subject. The repeated use of skills proportional to skill acquisition patient care volume is therefore an important component of skill retention, and has been retained.

Conceptual Model

The findings of this body of research led to the general development of the Brooks conceptual model. The conceptual model is a short form, or *conceptual chunking*, of the

characterizations captured according to the themes identified (Gobet, 2005). Therefore, the results can be applied and articulated adding value to its use in the profession.

The conceptual framework as defined by the data is based on the seven identified themes: (a) attitude, (b) interaction, (c) performance, (d) resources, (e) measurement, (f) productivity, and (g) motivation. The word anagram, PRIME MAP, is directly derived from the capital letters of the seven identified themes providing an appropriate name for the conceptual framework. The theme components of the PRIME MAP anagram, shown in Figure 5.1, did not occur in the metaphor letter sequence. An order of theme priority or appearance was also not suggested or implied in the research.

P	Performance	M	Motivation
R	Resources	A	Attitude
I	Interaction	P	Productivity
Me	Measurement		

Figure 5.1. The PRIMEe MAP anagram of themes identified from the meaningful statement sorted from the data collected.

Additionally, the research revealed that Benner’s (2001) scaffold existed within physical therapy but with discipline-specific representation. The labels given to the professional levels in the original research per Benner (2001) and Dreyfus and Dreyfus (1986) remained the same as derived from the triangulated data. Primarily, the order of the

five levels did not change from the Benner (2001) structure, and skill overlap was part of the growth process as presented from the data as shown in Table 4.15. Figure 5.2 was formulated to represent the scaffold of the Brooks model of levels of professional development, discipline-specific to physical therapy.

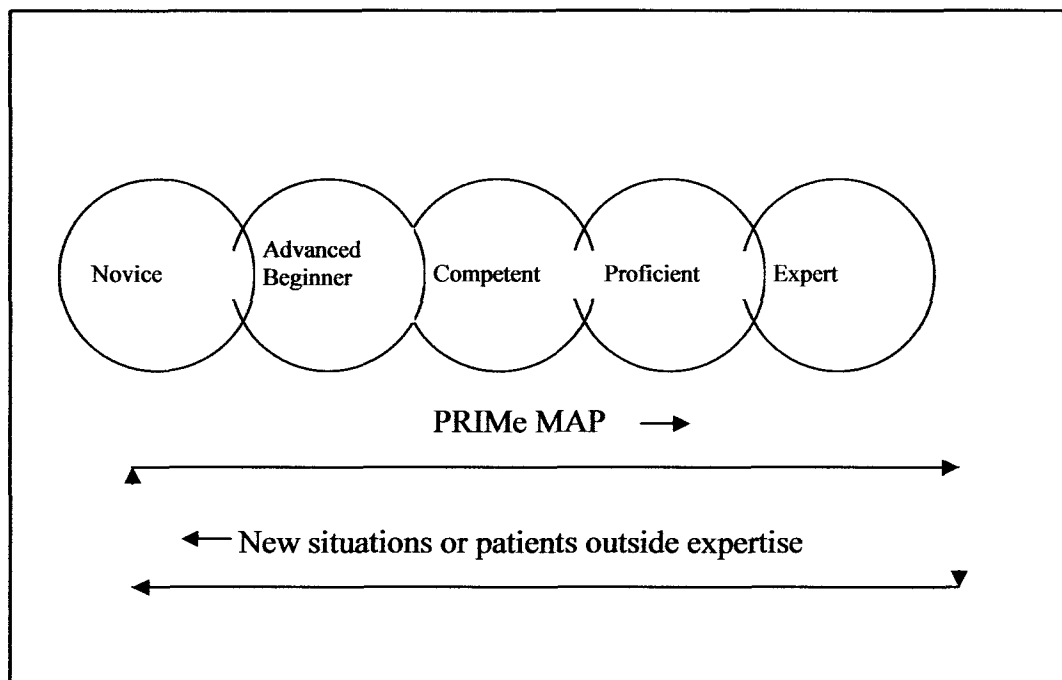


Figure 5.2. Brooks conceptual model of professional development. Levels advance with experience and decrease with the negotiation of novel cases outside the usual treatment experience and area of expertise.

The conceptual model did not include an axis indicative of time or a time frame but identified the critical incidences at each stage of the model. The clinician, expert or new DPT, progressed through the PRIME MAP critical incidents of his lived experiences at an individual pace, during which skills were acquired according to personal achievement. The arrow in the direction of expert back to novice presents the notion, as expressed by the new DPT subjects, that the expert clinician returned to the novice level when working in a

different setting or with a patient who had physical therapy problems outside the realm of his expertise. In agreement, the research conducted by Gobet (2005) regards the skill acquisition of experts in education:

It has been known for over 100 years that there is transfer from one domain to another only when there is an overlap... between the components of the skills required in each domain... this is because the perceptual chunks [of skill], which act as the conditional part of productions, becomes more selective. In addition, time spent tuning one specific skill will not be devoted to acquiring other skills. (Gobet, 2005, p.194)

The skill level demonstrated for the expert falling back toward the lower levels of professional development as new cases outside of his practice realm did not remain in the novice level. In fact, the expert moved very quickly through the professional phases and did not rest in the lower levels for an equal or similar amount of time as experienced during the first encounter of the novice and other initial levels. Because critical incidents layered the groundwork for experience, the clinician was able to return to expertise at a quicker rate yet undetermined by time, but observed because of the valued experience.

Tables 5.1 and 5.2 consolidate the exhaustive descriptions shown in Figure 4.1 into a functional dimension that can be easily referenced by the professional in agreement with the conceptual model. The purpose of the tables is to display the descriptions in a functional format and provide a road map of reference that should be applicable as professional evidence of development. Tables 5.1 and 5.2 were constructed to replicate similar grids by

Benner (2001) and Dreyfus and Dreyfus (1986) in which the arrangement of the qualitative data was specific and the data were organized into an applied model. The tables were developed as a representative conceptualization of the data exemplars and exhaustive descriptions. This framework of the five levels of professional development captured by this research applied the characteristics descriptive of the evolution of the physical therapist from student to practicing clinician. The characteristics clarified the skill acquisition at each levels of professional development distinct to physical therapist practice.

Table 5.1

Expert Functional Format of Exhaustive Descriptions

Level	Attitude	Interaction	Performance	Resources	Measurement	Productivity	Motivation
Novice	Defensive about clinical decisions, lacks confidence	Intimidated by other clinicians, interaction minimal	Amasses information, unfocused, non-integration	Expects, mentor, or clinical instructor to anticipate needs	Self- assessment is a personal responsibility, quality of character may be a stumbling block, national standards of performance, no time frame for achievement, potential to return to novice with a new patient outside expertise or new practice situation, peer feedback, company recognition, patient response	Negative connotation, impacts quality of contribution to patient restoration, inverse relationship to quality, productivity should include recognition of other responsibilities	Motivation a requirement of professional development, desire to perform at the highest level and impact the patient, commitment
Advanced Beginner	False sense of confidence, lacks full focus on the patient	Practiced with time and experience	Rigid implementation of treatment plan, no deviation	Selective use of knowledgeable peers			
Competent	Direct concern about the patient, potential overconfidence	Positive, diplomacy learned, appreciation of other coworkers	Interventions are appropriate, patient progress at a slower pace than proficient	Arrogant, value in continuing education over competent clinician			
Proficient	Therapeutic relationship, directed by patient response	Communicates and shares on multiple levels	Effective problem solving, critical thinking	Amenable to learn from multiple sources			

(continued)

Table 5.1

Expert Functional Format of Exhaustive Descriptions

Level	Attitude	Interaction	Performance	Resources	Measurement	Productivity	Motivation
Expert	Patient sovereign over the therapist, empathy	Communicates support, rapport, and leadership philosophy	PT diagnosis paramount, hands are tools, masterful comprehension of patient comments	Expertise acquired via continuing education, self-directed learning, grounded	Self- assessment is a personal responsibility, quality of character may be a stumbling block, national standards of performance, no time frame for achievement, potential to return to novice with a new patient outside expertise or new practice situation, peer feedback, company recognition, patient response	Negative connotation, impacts quality of contribution to patient restoration, inverse relationship to quality, productivity should include recognition of other responsibilities	Motivation a requirement of professional development, desire to perform at the highest level and impact the patient, commitment

The difference between Table 5.1 and Table 5.2 is the conclusion of this research. Table 5.1 presents the characteristics of the expert of the workforce leading up to this point and prior to the DPT clinician being a practice credential. Table 5.2 is the new DPT exhaustive descriptions, or the characteristics, for the current and emerging workforce at the different stages of new DPT subjects' development. The dominance of the DPT entry-level credential sooner than the mandated year 2020 per the 2020 vision statement (APTA, 2000) deem the new DPT subject exhaustive descriptions and Brooks model of professional development, shown in Table 5.2, as the realistic and practical explanation of the five levels of professional development and skill acquisition. Figure 5.3 gives examples of how the exhaustive descriptions were consolidated into the model functional format showing the overall conceptualization.

The Brooks model of professional development encompassed the exhaustive descriptions as they actually defined the levels of professional development and the skill acquisition that needed to be accomplished before moving to the next level. Significant to the use of the model is how the clinician changes as he advances from one level to the next. The grids in Chapter 4 present the exhaustive descriptions formulated from the semi-structured interviews and identified themes of both subject groups. Figure 5.3 shows the example of the motivation dimension from the exhaustive description streamlined into a functional comment to fit the Brooks model.

Table 5.2

Brooks Model of Professional Development: PRIME MAP

Level	Attitude	Interaction	Performance	Resources	Measurement	Productivity	Motivation
Novice	Apprentice, student needing validation	A learned task, struggle, learning professional boundaries	Over objectification	No practical reference, mimics others	Self- assessment, no stepwise progression, responsible for active professional life, annual review	A business construct, statistical burden at the expense of the loss of treatment freedom to provide quality care, a healthy respect for use of time to benefit the patient	No foundation to reflect upon, but is of equal importance as in the other levels
Advanced Beginner	Portrayal of confidence perceived as effective clinical decision-making	Basic and metered to present a higher level of performance than the actual	Reliant on perceived patient response and case repetition to progress critical thinking	Other clinicians validate critical thinking, loss of mentor	professional feedback, patient satisfaction		All or none mindset, appreciation of patient achievement is the primary motivator, presence denotes the potential ability to progress through the levels
Competent	The patient is the focus, therapeutic relationship developed, knows the patient	Used to brainstorm and seek information to benefit patient treatment	Solves patient problems, difficulty disregarding the irrelevant	Relies on dialogue with peers, values resource filled environment			

(continued)

Table 5.2

Brooks Model of Professional Development: PRIME MAP

Level	Attitude	Interaction	Performance	Resources	Measurement	Productivity	Motivation
Proficient	Engages the patient easily and finds meaning in patient comments, educates the patient	Significant, frequent, and a vehicle to share knowledge	Problem solving is quick/focused, positive patient outcomes, seamless		Self- assessment, no stepwise progression, responsible for active professional life, annual review tool, professional feedback, patient satisfaction	A business construct, statistical burden at the expense of the loss of treatment freedom to provide quality care, a healthy respect for use of time to benefit the patient	All or none mindset, appreciation of patient achievement is the primary motivator, presence denotes the potential ability to progress through the levels
Expert	Strong commitment to patient restoration, unencumbered by time constraints	Shares knowledge to bolster the staff and environment, fulfills expected role positively	Ability to articulate critical thinking, master handling, defines PT diagnosis				

Table 5.2, structured as a result of this research, is the Brooks model. The information derived from the expert group formed the basis and the appropriate perspective for data collection, design strategy, comparison of comments, and the validation of the new DPT data. But, the new DPT framework is representative of those practicing solely under the full impact of the 2020 vision statement expectations, the results of legislation and the changed practice environment. The new DPT population was not impacted by the historical practice environment, because their lived experiences were contemporary and formed the criteria for ongoing and future practice. The APTA may decide to examine the results of the mandated professional changes through the performance of the new DPT clinician. The new DPT summation is representative of the evolution of practice, and the slight differences from the expert characterizations are justified by the differences in the time in which the clinician worked in the profession.

Discussion

The final portion of this chapter presents the concluding comments to this body of work. While discussing the insights about the study findings, these comments will also relate the Brooks conceptual model to prior research and how literature gaps are filled. Briefly explored are insights regarding this study, the theoretical implications of this study, the unanticipated findings unique to this study, the implications of this work to the physical therapy profession, and the direction that future research should pursue.

Exhaustive description of the motivation dimension: The primary motivation for the physical therapy clinician is the accomplishments achieved by the patients. Motivation is all or none, and is distinguished by one's drive to relate to the patient and be effective in restoring the health of the patient. Motivation is equally as important for the novice as it is for the expert and potentially even more so for the novice. The novice has no physical therapy foundation to reflect upon or apply to bolster his mindset. Motivation denotes his potential ability to move through the five levels of professional development and must be seized by the novice in order to attempt finding the pleasures of this profession.

The Brooks model functional reference:

Level	Motivation
Novice	No foundation to reflect upon, but is of equal importance as in the other levels
Advanced Beginner to the Expert	All or none mindset, appreciation of patient achievement is the primary motivator, presence denotes the potential ability to progress through the levels

Exhaustive description of the expert- attitude dimension: The expert clinician is totally focused on the patient as a whole person. The expert is committed to doing whatever is needed to improve the patient's level of function and relieve the problems diagnosed. The expert clinician deals with patient directly, is empathetic and appears to spend more time with the patient in comparison to the subordinate clinicians. They appear confident, self-assured, unencumbered by time constraints, and appear to handle all facets of his job responsibilities with ease. He communicates with the patients so well that the client is not afraid to reveal anything to them. The patients tend to demonstrate admiration for this level of clinician. Despite this sense of elevation, the expert clinician is not all-knowing. The expert clinician consistently demonstrates information seeking behavior in his daily practice that includes researching a topic effectively but also by relying on the experience of coworkers which he explores by asking poignant questions.

Level	Attitude Dimension
Expert	Strong commitment to patient restoration, unencumbered by time constraints

Figure 5.3. Motivation and attitude examples of exhaustive description consolidated to the functional Brooks model format. Shows how the exhaustive descriptions are consolidated into the functional format using key words that can be used as a reference for the particular stage of professional development and the tasks necessary for skill acquisition.

Insights regarding study findings

The study itself had produced key findings that are pertinent to the field of physical therapy as it explores the definition and meaning of the five levels of professional development. The recognition of these levels within the field brings the term of professional development beyond that of professional training conducted and evaluated outside and separate from the work environment and contextually different from the standard tasks of job improvement. General work standard terms, such as to evaluate and treat as usually prescribed on referrals, conjure up for this researcher the technical aspects of physical therapy rather than the integrated professionalism and expectations of the doctoring professional that this study has provided, which are rooted in discipline-specific descriptors.

To elaborate, the overarching finding was the acceptance and application of the five levels of professional development by the study professionals as applied by Benner (2001). The existence of these levels within the profession so that they could be discussed by the two groups with the differences ascribed to the generational context of practice for the experienced expert subject as compared to the new DPT subject.

The major reasons why the key findings were present were due to the legislative changes in place for the academic and practice phases of the new DPT career; the evidence-based practice component, also present for the same time period that demanded the proofs of best practice (Jensen et al., 1992) around the patient-centered approach (Higgs & Jones, 2000); and the establishing of the terminal degree to be the clinical doctorate level for the practicing clinician.

Theoretical implications

The study results mean that beyond the general definition of professional development independent of continuing education entities, the acquisition of additional credentials of specialization, and time, there exist phases of skill acquisition distinct to physical therapist practice. These phases consist of five recognized levels that are theoretically in alignment with other major professions, such as nursing, education, medicine and engineering. Dreyfus and Dreyfus (1986) presented the basic framework of the five levels of professional development in 1982 and conducted more recent work in 2005 in which they identified these same stages in detail for medicine (Dreyfus and Dreyfus, 2005). These five stages (novice, advanced beginner, competent, proficient, and expert) are the same terms used by medicine and in the work conducted by Benner (2001), which served as the scaffold of reference for this study. The alignment of the stages with descriptors unique to each profession supports the meaning of this study so that it can be used by the physical therapy profession.

The Brooks conceptual model provides for the profession an original framework for the five levels of professional development. All previous physical therapy use of the terminology used the terms normalized to nursing profession per the Benner (2001) definitions and model. No validation of the five levels of professional development in the physical therapy discipline had been conducted until this body of work.

Unanticipated findings

One unanticipated finding within the body of work was the fact that there was no time frame of expectation assigned by the subjects as to when the clinician would move to the next level of professional development. This finding was in complete contrast to the Benner (2001) model and the framework of thinking provided by the Dreyfus and Dreyfus (1986) research. Additionally, the themes of motivation and self-assessment through measurement were significant throughout the five stages for the new DPT. The significance of the quality of one's character was a component of the experts' professional measurement but was removed from the characteristics of the new DPT perspective, potentially because of their sophistication in the area of specificity and sensitivity in any category of tangible measurement.

Finally was the realization that the new DPT subject revealed that professional development and the thought process of a clinician, even though rudimentary, started within the academic education process. The expert subject saw the new graduates or students on their last clinical experiences as being a new clinician. The new DPT placed value in the classroom lab or psychomotor activities in addition to the clinical or student internship experiences orchestrated throughout the educational process. A limitation of the study was the length of time from the actual occurrence of a critical incident to the time in which the subject was asked to recall an event for the purposes of this study. The best use of the critical incident technique is to recall events within one year of occurrence. The data collected did not have part of its criteria a limit as to when critical incidents occurred. This lack of criteria speaks to the significance of tools, such as the portfolio, to collect critical incidents as a

timely document in addition to performance details, such as professional development learning cycles, learning advancement, and self-assessment (Wilkinson et al., 2002).

Implications for practice

The implications for practice, with the Brooks model and the professional level descriptors, include that in spite of additional credentials and traditional professional development strategies, the clinician may not be an expert. Conversely, the clinician who has not followed the traditional model of professional development strategies may have achieved a higher level of professional development per the Brooks model than expected.

The major implication for practice is that this body of work has presented a road map for the examination of the individual clinician's professional development through the profession in a stepwise manner. The presented stages are explained in context and vocabulary that is discipline-specific to physical therapy, and therefore, will change the descriptions previously used from Benner (2001) and the context of nursing experience to justifiable physical therapy related practice concepts.

Direction for future research

Further research needs to be conducted in the validation of the five levels of professional development for physical therapy, because this study covered the outpatient setting only. The acute care, rehabilitation, geriatric, neurological, and home care settings have yet to be explored. It is argued in the common format without proof that the outpatient setting has been the beneficiary of most of the legislative changes that have taken place in the

recent history of the profession and is the location to which most doctorate prepared clinicians are drawn to practice. That being said, as the volume of doctorate prepared clinicians increases in all settings, the dynamics of new DPT practice should be examined.

APPENDIX A

P.O. Box 1173
Norwalk, CT 06857
(203) 371-7920

(Date)

Dear (Clinician),

The physical therapy profession has launched the respectful elevation of the profession to the “doctoring” level and is successfully transitioning the entry-level degree to the Doctorate of Physical Therapy (DPT) degree. The APTA recently recognized that professional development is a significant portion of the work process. Advancement of skills is necessary, and the raising of the standard of practice has become an important area for physical therapists to embrace.

As part of my current study as a doctoral student at Southern Connecticut State University, I am investigating the definitive view of currently practicing clinicians. The first portion of my research addresses how one has gained practice experience, including a discussion of a solid perspective of practice in the outpatient setting and what were the lived experiences as to how and why one has reached their current status. The initial data collection will involve speaking to practice experts whom you feel will respond to these questions representatively. Your recommendations will be collected confidentially, the results

compiled and used to reveal qualitatively the perspectives of the sample of clinician who has participated in this study.

Please respond using the enclosed document or feel free to e-mail your response to the address indicated. I look forward to receiving your feedback and promoting the growth of our profession.

Sincerely,

Salome Brooks PT, MBA, MA
Doctoral Student
Southern Connecticut State University

Enclosure (1)

EXPERT RECOMMENDATION

Definition of Expert:

The expert clinician functions at the intuitive level with speed and accuracy relying on a vast range of experiences. The expert has a deep understanding of any situation or complexity of patient. The expert often has difficulty explaining his rationale for treatment approaches or choice of examination strategies because he operates at a complex level. The expert physical therapist in the clinical setting has difficulty explaining his actions on the scientific level. This level of clinician is able to integrate information from multiple research sources and apply the derived information to meet the unique needs of the individual patient that does not necessarily transfer to the next case.

Please take the time to nominate a known outpatient clinician(s), local or not, whom you think best fits the above description and is representative of the profession of physical therapy.

PLEASE RESPOND BY (21 days from mailing date)

Nominee Name: _____

Title or Credentials: _____

Location: (facility, town and/or state where nominee practices):

Nominee Name: _____

Title or Credentials: _____

Location: (facility, town and/or state where nominee practices):

Please mail responses to (or use pre-paid envelope):

Salome Brooks, P.O. Box 1173, Norwalk, CT 06857

OR

FAX this sheet to: Salome Brooks, Program in Physical Therapy (203) 365-4725

OR

E-mail to: brookss3@southernct.edu

Please include the following in your e-mail response:

Facility code _____ (top right corner of this form)

Nominee name

Nominee title/credentials

Location of nominee

APPENDIX B

P.O. Box 1173
Norwalk, CT 06857
(203) 371-7920

(Date)

Dear (Expert Clinician),

The Physical Therapy profession has launched the respectful elevation of the profession to the “doctoring” level and is successfully transitioning the entry-level degree to the Doctorate of Physical Therapy (DPT) degree. In addition, though there is recognition that professional development is a significant portion of the work process, advancement of skills and the raising of the standard of practice have become areas for the profession in which to work.

The perspective of the practicing clinician who has been identified as an expert by regional clinicians is an area of interest that I am exploring as part of my study as a doctoral student at Southern Connecticut State University. How you achieved your “expertise” and the critical events in your professional life are of interest. I would like to conduct an interview with you to gain your perspective of your practice area. Your personal outlook and lived experiences as to how and why you have reached your current status will be discussed. Your responses will be collected confidentially, and the results will be compiled and used to reveal qualitatively the perspectives of the sample of clinician who has participated in this study.

I will be contacting you shortly by telephone to request your participation and schedule an interview if you agree. I look forward to establishing a rapport with you as I embark on this research endeavor.

Sincerely,

Salome Brooks PT, MBA, MA
Doctoral Student
Southern Connecticut State University

APPENDIX C

Salome Brooks PT MBA MA
Southern Connecticut State University

DPT Questionnaire

Review each question carefully. Please answer all the questions provided.

1. Refer to the Five Levels of Professional Development handout. In your experience, have levels or similar items been used or presented to you/by you previously? Please describe.

2. Appropriately apply one of the levels to your current professional status. Describe how you think you may fall into one of these categories.

3. How would you achieve the next highest professional level? What strategies would you employ?

4. How should your achievement be measured? By whom?

5. Describe a typical case that you have worked with recently. Why is this case typical?

6. Describe a complex case that you have worked with recently. Why is this case complex?

7. You are conducting an examination of a new patient. How would you interact with this new patient?

APPENDIX D

P.O. BOX 1173
Norwalk, CT 06857
(203) 371-7920

(Date)

Dear (Department Director),

The physical therapy profession has launched the respectful elevation of the profession to the “doctoring” level and is successfully transitioning the entry-level degree to the Doctorate of Physical Therapy (DPT) degree. In addition, though there is recognition that professional development is a significant portion of the work process, advancement of skills and the raising of the standard of practice have become areas in which the profession would benefit from reviewing.

The perspective of the practicing entry-level DPT prepared clinician is an area of interest that I am exploring as part of my study as a doctoral student at Southern Connecticut State University. I would like to conduct a group interview with your DPT clinicians to gain their perspective of outpatient practice and their personal outlook and lived experiences as to how and why they have reached their current status. Their responses will be collected confidentially, and the results will be compiled and used to reveal qualitatively the perspectives of the sample of clinician who has participated in this study.

I will be contacting you shortly by telephone to request your department's participation. I would like to request a place for my visit on your in-service schedule. Though I will not be interviewing all staff, I will be able to provide an in-service regarding the levels of professional development provided in current literature and relate this to the professional development strategies identified by the APTA in alignment with 2020 vision statement. I will be contacting you to within the next two weeks in the hope of presenting to your staff and conducting an interview. I look forward to a fruitful exchange.

Sincerely,

Salome Brooks PT, MBA, MA
Doctoral Student
Southern Connecticut State University

APPENDIX E

P.O. Box 1173
Norwalk, CT 06857
(203) 371-7920

(Date)

Dear (new DPT),

The physical therapy profession has launched the respectful elevation of the profession to the “doctoring” level and is successfully transitioning the entry-level degree to the Doctorate of Physical Therapy (DPT) degree. In addition, though there is recognition that professional development is a significant portion of the work process, advancement of skills and the raising of the standard of practice have become areas for the profession in which to work.

The perspective of the practicing clinician who is prepared at the doctorate level and within the first five years of practice is an area of interest that I am exploring as part of my study as a doctoral student at Southern Connecticut State University. How you achieved your current performance level and the critical events in your professional life are of interest. I would like to conduct a group interview with you and other colleagues to gain your perspective of your practice area. Your personal outlook and lived experiences as to how and why you have reached your current status will be discussed. Your responses will be collected confidentially, and the results will be compiled and used to reveal qualitatively the perspectives of the sample of clinician who has participated in this study.

I will be contacting you shortly by telephone to request your participation and schedule an interview if you agree. I look forward to a fruitful exchange.

Sincerely,

Salome Brooks PT, MBA, MA
Doctoral Student
Southern Connecticut State University

APPENDIX F: STATEMENT OF INFORMED CONSENT AND STUDY PARTICIPATION AGREEMENT

The purpose of this research study, to be conducted by Salome Brooks, is to characterize physical therapist professional development using the five stages of the Benner model of professional development as a framework. Furthermore, this study will gather information regarding a consensus of these characteristics from the clinicians questioned.

The data will be collected in an interview format, either individual or focus group. A questionnaire, predetermined, and clarifying questions will be used to ask about the above stated topic. The identity of the participant will not be revealed at any time during the study, in the documentation of the results, or during the tape recording process. The data collected will be used for research purposes and in partial fulfillment of the Doctorate Program in Educational Leadership at Southern Connecticut State University. In addition, this research study may be developed for publication in a suitable peer reviewed journal.

APPENDIX G: AGREEMENT

I have explained to _____ the purpose of the research, the procedures required, and the possible risks and benefits to the best of my ability. To the best of my knowledge, the information contained in this consent form is true and accurate.

(Signature, Principal Investigator)

(Date)

I confirm that Salome Brooks has explained to me the purpose of this research, the study procedures that I will undergo and the possible risks and discomfort as well as benefits that I may experience. Should I deem it necessary, at any time during the research process, I am permitted to withdraw my consent from participation in this study. Should I have any questions or concerns, I am permitted to contact the investigator of this research study, and I have been provided the necessary contact information. I have read or have had read to me this consent form and I understand it. Therefore, I give my consent to participate as a research participant in this research study.

(Signature, Participant)

(Date)

APPENDIX H: FIELD NOTES

Subject 101 was a 32 year old male physical therapist who was a private practice owner. He was very happy to participate in the study and was very humbled at the fact that he had been nominated by another clinician as an expert. The interview was arranged to take place at a specific time in the middle of the day surrounding the lunch time hour. The clinician cleared one patient in order to accommodate the expected time of completion of the interview and to accommodate this researcher.

The clinician was waiting for this researcher at the door to the facility. The clinician brought me into the clinic and introduced me to all staff and junior clinicians as we walked through to a back office area that had a desk, not his desk. The area had a large window with a view of the clinic so that he could observe the goings on while this researcher and the clinician were speaking. The facility itself was extremely busy with many cubicles separated by curtains, not solid walls. The interruptions during the interview were frequent and significant to the running of the clinic. The constant stop and start did not interfere at all with the flow of answers and the appearance of the actual thought process of the clinician. Interestingly, a physician, who also worked in the building but not in the department, came to the door and knocked toward the very end of the interview. He came to ask this clinician's opinion about a patient post surgery.

APPENDIX I: STUDENT GENERIC ABILITIES SELF-ASSESSMENT

Physical Therapy Program
University of Wisconsin-Madison

Student - Clinical Experiences

General Instructions - Student

1. Read description and definitions of Generic Abilities - page 2.
2. Become familiar with behavioral criteria for each level - pages 3 & 4.
3. Self-assess your performance. At mid-term and upon completion of your clinical, *highlight (or underline) the sample behaviors you feel you have consistently performed.*
4. Based upon your self-assessment, complete page 5 of the Generic Abilities. Rank each GA along the visual analog scale and provide a brief example of the highest sample behavior you have demonstrated thus far in the clinical experience.
5. Ask your Clinical Instructor to review and discuss your self-assessment, then sign page 5, signifying that they agree with your assessment.
6. Return entire packet to ACCE, University of Wisconsin-Madison upon completion of this experience.

PLEASE NOTE:

1. The criteria provide examples of behaviors required for competence at a given level.
2. It is NOT necessary for the student to demonstrate all of the criteria to be considered competent at a given level. However, if a behavior is not highlighted because it is a problem area, comments are required on page 5.

Student
(Please Print)

Clinical Instructor
(Please Print)

Facility _____ City/State

PT Program _____ Rotation (# or type) _____

Generic Abilities*

Generic abilities are attributes, characteristics or behaviors that are not explicitly part of the profession's core of knowledge and technical skills but are nevertheless required for success in the profession. Ten generic abilities were identified through a study conducted at UW-Madison in 1991-92. The ten abilities and definitions developed are:

Generic Ability	Definition
1. Commitment to Learning.	The ability to self-assess, self-correct, and self-direct; to identify needs and sources of learning; and to continually seek new knowledge and understanding.
2. Interpersonal Skills.	The ability to interact effectively with patients, families, colleagues, other health care professionals, and the community and to deal effectively with cultural and ethnic diversity issues.
3. Communication Skills.	The ability to communicate effectively (i.e., speaking, body language, reading, writing, listening) for varied audiences and purposes.
4. Effective Use of Time and Resources.	The ability to obtain the maximum benefit from a minimum investment of time and resources.
5. Use of Constructive Feedback.	The ability to identify sources of and seek out feedback and to effectively use and provide feedback for improving personal interaction.
6. Problem-Solving.	The ability to recognize and define problems, analyze data, develop and implement solutions, and evaluate outcomes.
7. Professionalism.	The ability to exhibit appropriate professional conduct and to represent the profession effectively.
8. Responsibility.	The ability to fulfill commitments and to be accountable for actions and outcomes.
9. Critical Thinking.	The ability to question logically; to identify,

	generate, and evaluate elements of logical argument; to recognize and differentiate facts, illusions, assumptions, and hidden assumptions; and to distinguish the relevant from the irrelevant.
10. Stress Management.	The ability to identify sources of stress and to develop effective coping behaviors.

Note. Developed by the Physical Therapy Program, University of Wisconsin-Madison, May, W., et al. (1995). Model for ability based assessment physical therapy. *Journal of Physical Therapy Education.* 9(1), 3-6.

Generic Abilities	Beginning Level Behavioral Criteria	Developing Level Behavioral Criteria	Entry Level Behavioral Criteria
1. Commitment to Learning	Identifies problems; formulates appropriate questions; identifies and locates appropriate resources; demonstrates a positive attitude (motivation) toward learning; offers own thoughts and ideas; identifies need for further information	Prioritizes information needs; analyzes and subdivides large questions into components; seeks out professional literature; sets personal and professional goals; identifies own learning needs based on previous experiences; plans and presents an in-service, or research or case studies; welcomes and/or seeks new learning opportunities	Applies new information and re-evaluates performance; accepts that there may be more than one answer to a problem; recognizes the need to and is able to verify solutions to problems; reads articles critically and understands the limits of application to professional practice; researches and studies areas where knowledge base is lacking
2. Interpersonal Skills	Maintains professional demeanor in all clinical interactions; demonstrates interest in patients as individuals; respects cultural and personal differences of others; is non-judgmental about patients' lifestyles; communicates with others in a respectful, confident manner; respects personal space of patients and others; maintains confidentiality in all clinical interactions; demonstrates acceptance of limited knowledge and experience	Recognizes impact of non-verbal communication and modifies accordingly; assumes responsibility for own actions; motivates others to achieve; establishes trust; seeks to gain knowledge and input from others; respects role of support staff	Listens to patient but reflects back to original concern; works effectively with challenging patients; responds effectively to unexpected experiences; talks about difficult issues with sensitivity and objectivity; delegates to others as needed; approaches others to discuss differences in opinion; accommodates differences in learning styles
3. Communication Skills	Demonstrates understanding of basic English (verbal and written): uses correct grammar, accurate spelling and expression; writes legibly; recognizes impact of non-verbal communication: listens actively; maintains eye contact: Demonstrates understanding of basic English (verbal and written): uses correct grammar, accurate spelling and expression; writes legibly; recognizes impact of non-verbal communication: listens actively; maintains eye contact	Utilizes non-verbal communication to augment verbal message; restates, reflects and clarifies message; collects necessary information from the patient interview	Modifies communication (verbal and written) to meet needs of different audiences; presents verbal or written messages with logical organization and sequencing; maintains open and constructive communication; utilizes communication technology effectively; dictates clearly and concisely
4. Effective Use of Time and Resources	Focuses on tasks at hand without dwelling on past mistakes; recognizes own resource limitations; uses existing resources effectively; uses unscheduled time efficiently; completes assignments in timely fashion	Sets up own schedule; coordinates schedule with others; demonstrates flexibility; plans ahead	Sets priorities and reorganizes when needed; considers patient's goals in context of patient, clinic and third party resources; has ability to say "No"; performs multiple tasks simultaneously and delegates when appropriate; uses scheduled time with each patient efficiently

Generic Abilities	Beginning Level Behavioral Criteria	Developing Level Behavioral Criteria	Entry Level Behavioral Criteria
5. Use of Constructive Feedback	Demonstrates active listening skills; actively seeks feedback and help; demonstrates a positive attitude toward feedback; critiques own performance; maintains two-way information	Assesses own performance accurately; utilizes feedback when establishing pre-professional goals; provides constructive and timely feedback when establishing pre-professional goals; develops plan of action in response to feedback	Seeks feedback from clients; modifies feedback given to clients according to their learning styles; reconciles differences with sensitivity; considers multiple approaches when responding to feedback
6. Problem-Solving	Recognizes problems; states problems clearly; describes known solutions to problem; identifies resources needed to develop solutions; begins to examine multiple solutions to problems	Prioritizes problems; identifies contributors to problem; considers consequences of possible solutions; consults with others to clarify problem	Implements solutions; reassesses solutions; evaluates outcomes; updates solutions to problems based on current research; accepts responsibility for implementing of solutions
7. Professionalism	Abides by APTA Code of Ethics; demonstrates awareness of state licensure regulations; abides by facility policies and procedures; projects professional image; attends professional meetings; demonstrates honesty, compassion, courage and continuous regard for all	Identifies positive professional role models; discusses societal expectations of the profession; acts on moral commitment; involves other health care professionals in decision-making; seeks informed consent from patients	Demonstrates accountability for professional decisions; treats patients within scope of expertise; discusses role of physical therapy in health care; keeps patient as priority
8. Responsibility	Demonstrates dependability; demonstrates punctuality; follows through on commitments; recognizes own limits	Accepts responsibility for actions and outcomes; provides safe and secure environment for patients; offers and accepts help; completes projects without prompting	Directs patients to other health care professionals when needed; delegates as needed; encourages patient accountability
9. Critical Thinking	Raises relevant questions; considers all available information; states the results of scientific literature; recognizes holes in knowledge base; articulates ideas	Feels challenged to examine ideas; understands scientific method; formulates new ideas; seeks alternative ideas; formulates alternative hypotheses; critiques hypotheses and ideas	Exhibits openness to contradictory ideas; assess issues raised by contradictory ideas; justifies solutions selected; determines effectiveness of applied solutions
10. Stress Management	Recognizes own stressors or problems; recognizes distress or problems in others; seeks assistance as needed; maintains professional demeanor in all situations	Maintains balance between professional and personal life; demonstrates effective affective responses in all situations; accepts constructive feedback; establishes outlets to cope with stressors	Prioritizes multiple commitments; responds calmly to urgent situations; tolerates inconsistencies in health care environment

APPENDIX J: EXPERT SUBJECT SCRIPT

1. Read through the general items of the script to present organization.
2. Present informed consent and obtain signature.
3. Complete demographic card: name, date of birth, highest physical therapy degree earned (not t-DPT), year of graduation, college or university attended, certifications or specialist credentials, year earned, time working in the physical therapy profession, and time working in the outpatient arena
4. Present and read the definition of the five levels of professional development.
5. What course work have you completed over the last few years? (Referring to course work orientation).
6. Can you give me a few examples of some interesting cases that you have tackled recently? (Referring to level of complexity of patients and referral expertise).
7. Have participated in clinical education, college teaching, or mentoring of junior staff?
8. Have you participated in any kind of research? It does not have to be clinic related.
9. I would like to dialog with you about your experience as a physical therapist. Specifically, I would like you to try to recall the kinds of experiences that molded how you currently work. The five stages of professional development will give you a framework as to the possible stages your evolution.
10. Colleagues have described you as an expert. Do you agree? Why or why not?
11. Describe your interaction when meeting a patient for the first time.

12. If I stood outside the window of the clinic and watched you work with the patient, what would be taking place? What would you look like?

13. How do you decide what is the best course of action or treatment for the patient?

14. How do you decide that a patient has benefited from your intervention?

15. As an expert, how do you interact with other physical therapy clinicians?

16. As an expert, how do you interact with other disciplines?

17. How do you know that you are an expert?

18. Think of an expert whom you have met. Describe him or her to me.

19. Take a look at the list of descriptors of the levels of professional development.

(Researcher Instructions: Repeat for remaining levels: novice, advanced beginner, competent, and proficient)

20. Pick the next level to discuss.

21. Describe what you were like during that level, even using just vocabulary words.

22. What environment were you in?

23. What events lead you to remember that you were at that level?

24. What or who were the contributors to your experience, positive or negative?

25. How did you know that you had achieved that level?

26. Give a description of a clinician who you observed function at that level?

How did him/her interact with you?

27. When I say “productivity,” what does that mean or conjure up in your mind?

28. When I say “motivation,” what does that mean or conjure up in your mind?

29. Do you think there is a time frame attached to levels of professional development?

30. Who is going to tell you or me that I am a novice, advanced beginner, competent, proficient, or expert clinician?
31. How should performance or the level be measured?
32. Where do these levels fit in professional life? Is this research valid?

APPENDIX K: DPT SUBJECT SCRIPT

1. Read through the general items of the script to present organization.
2. Present informed consent and obtain signature.
3. Complete demographic card: name, date of birth, highest physical therapy degree earned (not transitional DPT), year of graduation, college or university attended, certifications or specialist credentials, year earned, time working in the physical therapy profession, time working in the outpatient arena.
4. Present and read the definition of the five levels of professional development.
5. What course work have you completed over the last few years? (course work orientation)
6. Can you give me a few examples of some interesting cases that you have tackled recently? (Level of complexity of patients, referral expertise)
7. Have you participated in clinical education, college teaching, or mentoring of junior staff?
8. Have you participated in any kind of research? – It does not have to be clinic related.
9. I would like to dialog with you about your experience as a physical therapist. Specifically, I would like you to try to recall the kinds of experiences that molded how you currently work. The five stages of professional development will give you a framework as to the possible stages your evolution.
10. Where do you place yourself in the five levels? Why or why not?
11. Describe your interaction when meeting a patient for the first time?

12. If I stood outside the window of the clinic and watched you work with the patient, what would be taking place? What would you look like?
13. How do you decide what is the best course of action or treatment for the patient?
14. How do you decide that a patient has benefited from your intervention?
15. How do you interact with other physical therapy clinicians?
16. How do you interact with other disciplines?
17. How do you know that you are at the level you described in the beginning of this interview?
18. Think of an expert whom you have met. Describe him or her to me.
19. Take a look at the list of descriptors of the levels of professional development.
(Researcher Instructions: Repeat for remaining levels – Novice, Advanced beginner, Competent, Proficient, and Expert)
20. Pick the next level to discuss.
21. Describe what you were like during that level, even using just vocabulary words.
22. What environment were you in?
23. What events lead you to remember that you were at that level?
24. What or who were the contributors to your experience, positive or negative?
25. How did you know that you had achieved that level?
26. Give a description of a clinician whom you observed function at that level?
27. How did he or she interact with you?
28. When I say “productivity,” what does that mean or conjure up in your mind?
29. When I say “motivation,” what does that mean or conjure up in your mind?
30. Do you think there is a time frame attached to levels of professional development?

31. Who is going to tell you or me that I am a novice, advanced beginner, competent, proficient, or expert clinician?
32. How should performance or the level be measured?
33. Where do these levels fit in professional life? Is this research valid?

APPENDIX L: TRANSCRIBED INTERVIEW TEXT

Subject 101: Expert Physical Therapist

Subject: After reading through these, I'd have to say that's the majority of therapists that treat, probably. They are proficient, I mean competent.

Researcher: We have read through the general items of the script and you have read the informed consent information and I have obtained your signature. Correct?

Subject: Correct!

Researcher: What is your date of birth?

Subject: June 3rd 1975.

Researcher: What is the highest PT degree that you have earned?

Subject: Master.

Researcher: What year did you graduate?

Subject: 2000.

Researcher: What institution did you attend?

Subject: Sacred Heart University.

Researcher: What certifications or specialist credentials have you earned since then?

Subject: Performance enhancement specialist.

Researcher: What year did you earn that?

Subject: 2003.

Researcher: The amount of time that you have spent in the profession?

Subject: Six years.

Researcher: How long have you been working in the outpatient arena?

Subject: Six years.

Researcher: What course work have you completed over the last few years?

Continuing education wise, let's see! Maitland I and II McKenzie I, II and III; three or four Brian Mulligan courses, two Gary Grey courses and various other, probably five or six other continuing education type courses.

Researcher: Where they outpatient oriented?

Subject: Primarily, yes.

Researcher: Have you participated in clinical education, college teaching or mentoring of staff?

Subject: No, mentoring staff not yet [in this location]! I have mentored staff at the other facility that I worked in.

Researcher: Were they junior staff or new employees?

Subject: When I was in CT, one was a new employee [PT]. And then when I moved up here, one was a PTA.

Researcher: Have you participated in any type of research?

Subject: No!

Researcher: Not even in school?

Subject: In school I did. Capstone!

Researcher: I'd like to dialogue with you a little bit about your experience as a physical therapist. Specifically to try to recall the kind of experiences that molded how you currently work. The five stages of professional development will give you a framework as to the

possible stages of your evolution. Your colleagues have described you as an expert. Do you agree?

Subject: Yes!

Researcher: Why?

Subject: I think the level of education received at Sacred Heart to start, started us in a more advanced arena than a lot of the people that I have worked with. That was a good starting ground, and I think six years later the different situations that I have been in, the different facilities that I have worked in, and the different clinicians that I have worked with have got me to that level of expertise.

Researcher: Describe your interaction when you first meet a patient?

Subject: I try to introduce myself, find out a little bit about them, who they are, what they are about, what they are looking for, and why they are here. Usually the interview process on the initial evaluation takes the majority of the time. As I have been doing it longer, that process - how I do it is changing. I try to get to know them better, to see where they coming from, what exactly it is that they are looking for. I think when I find out who a person is and what they are looking for, it makes them more successful in therapy. So that you don't try to put a square peg into a round hole so to speak. Which I think sometimes you do when you first get out of school [laugh]. Then I go through my history and my exam and talk about what their goals are and find out how I can help them.

Researcher: If I were standing outside the window, what would you look like?

Subject: If you were standing outside my window looking at me, what would I look like?

Researcher: The expert and the patient on the mat!

Subject: And you are looking at me! I think your first impression would be a professional. I think on the surface that's dictated by how you dress, how you hold yourself, and how you speak to somebody. And then I think you reinforce that once you actually get into the dialogue with the patient and you take the time to say "ok, here's your ailment, here's what we need to do" and then you explain it to them. And think if you've taken the time to get to know them, that explanation has different faces. So if it's somebody that's been through this before, highly educated, is maybe a little bit scientific in their thinking and they kind of let you know that, you can get deeper into certain details. Pathophysiology and treatment rationale, sometimes people don't want to know that.

Researcher: So you actually listen to the patient?

Subject: That's the most important thing. I think if you listen to the patient they will tell you how to treat them versus what you think maybe was the preemptive idea when you see the script. Such as back pain, and rather than having all these ideas of treating back pain for instance, if you listen to them, then they will give you the answers on what you need to do.

Researcher: How do you decide what is best course of action or treatment for the patient?

Subject: Once again, I think it goes back to listening to them. Every day what I try and do different that I have noticed even in private practice in year 2 versus year 1, the more you talk to them if you keep talking to them and you start digging deeper, you find answers to how they need to be treated because you don't want to treat the symptom, you want to treat the cause. If you correct the cause, the symptoms will resolve. A lot of times people don't know better. Something that they are doing that causes this ailment especially if it is a non-traumatic, event that is, is really the reason they are in pain and staying in pain. They don't make the connection because it's not their job to make the connection. It's my job to make

the connection! And very often this is something that you get to on the third or the fourth visit, and they say to you “oh by the way, I have been painting my ceiling for the last two weeks. Do you think this has something to do with my shoulder problem?” You just shake your head and say “could be!” It is interesting that very often those kinds of things don’t come out on the first visit. Once again, how I treat them is dictated on what I am hearing from them, and then also thinking functionality is really the most important thing. What is it do they do? What are they trying to do? And then you can pace from that.

Researcher: How do you interact with other PT clinicians and other disciplines?

Subject: Can you define? When you ask me how, meaning how does it affect my business or how does it affect...

Researcher: You have thought about it from multiple perspectives, now you tell me.

Subject: I think from a business stand point, I try to keep in touch with people to try and see what it is they are doing. I try to learn from my colleagues what are the latest trends, what are they doing, why are they doing it, how are they finding their treatments to be successful, how are they finding their business operation successful, how are they finding dealing with different people? Quote unquote, dealing with the difficult client; which a lot of the time is nothing more than a communication issue! It is interesting when you talk to a clinician who has six years versus sixteen of experience and you might say to them “try this approach”. And its something very simple most often, and you can’t get a lot of answers from [the patient]. As far as dealing with other practitioners, as far as trying to help my patients, you can’t help everybody. I think that’s another big difference that I have learned since I have been out of school. You can get out of school and you can heal the world! The reality is that you can’t! I worked at a clinic that is about twenty minutes south of here that specializes in

certain areas of treatment that I don't. so certain times if need be if we are not obtaining the goal I can call them up and tell them that I would like to send them somebody from a referral standpoint.

Researcher: So you have a referral process.

Subject: Yes. I don't know how much it is reciprocated, but I try and do it because in the end if patients realize that you are looking out for their best interests, they will want to come back anyway. They will appreciate it much more and they are going to get better, and it's good for everybody.

Researcher: Can you give me some sense of the difficult patients that you have tackled recently that will be me some indication that you are an expert?

Subject: [Long Laugh] There's a list of them. There are a lot of difficult clients!

Researcher: You talked about the difficult client as being recognizable by the expert. But there is also the communication piece that you talked about too. But I am sure that there has to be some reason why this referral piece works and why is it that you get those people. Whether it's mechanically or mechanism of injury difficult or whether it's the difficult person. So you tell me - because I'm hearing a spectrum of observation from you.

Subject: I think the difficult client wasn't necessarily a difficult person to deal with, but I think his case was difficult in the sense that he was a marathon runner. [He] came to me, and I think what made it difficult was that he walked in the door, and the first thing out of his mouth to me was how he has been to a chiropractor for the last six years and has been working on this problem. So there was a certain sense of "I'm here because somebody suggested I come here but I'm not really sure if I should be here and I'm not really 100% confident that you can help me." He had a stress fracture in his lower leg, fibular stress

fracture combined with some other muscular ailments that he was dealing with. Went from marathon running, peaked, to where he couldn't walk a mile without great discomfort. So trying to figure out what his goals were. His goal was to get back to running a marathon. First visit, I wasn't really sure without knowing him that well if that [goal] was going to be obtained. Upon investigation, simple things that jump out at me; goes to take his shoes off, he has these massive orthotics in his shoes, and he had one of the highest cavus foot that I have ever seen. I said to myself that putting you in orthotics was probably one of the last things that I would ever do. You are overcorrecting this guy. I politely asked him how he got into the orthotics. Turns out it was the chiropractor who was also a very close friend of his. I think this fact also added a level of difficulty. I dealt with the idea that I had to get this guy out of his orthotics if he wanted to get better. And I had to politely not offend him and say I didn't agree with the treatment that his chiropractor/friend was doing with him. Working through the rationale, I kind of discussed some mechanical issues, what I saw, and I told him how I thought if we could try him out of the orthotics and try some different approach it might work well. By about the second visit, he said, "listen I like where you are coming from and to be honest with you, if I shouldn't be in these things, I'm not going to be offended. I don't care, I just want to run." I said "since you put it that way, I really don't think you should be in those". We worked and then it became difficult in the sense that mechanically that we had a lot of mechanical faults that we had to re-address. Fast forward six months, he's running the Rhode Island [Marathon] tomorrow and he is doing his best numbers that he has ever posted. But it was a long process of getting him doing the right exercises, changing his mechanical faults through what we did here then compliance issues making sure that he was following up with that stuff at home. Taking somebody who was in a splint essentially,

the orthotic, for x number of years and change that. Cleaning it up is not easy from a therapeutic stand point, but it was successful.

Researcher: Good for you! Let's go here [list]. We talked about the expert. Is there an example of an expert that you know. We talked about you being the expert. Is there an example of an expert that was a role model to you or you took a look at who was an expert that you wanted to emulate?

Subject: Personally that I know or in the field of therapy?

Researcher: In the field of therapy!

Subject: I would say Gary Gray. I first learned of him through Gary Austin. And to be quite honest with you, Gary would be talking about Gary Gray. He not only lost a lot of us in the beginning. He was so far removed from what a lot of the text books were saying. But, having spent time with Gary Grey multiple times and Dave Tiberio, and really revisiting the stuff that Gary Austin taught us, I scratch my head and said "if I knew that then"... I think he has just a superb understanding of biomechanical influences. I think that a lot of my treatments have a basis in that for the simple reason that it works. If I kind of like the way that Gary Grey talked and thought it was cool, but if I tried to apply it, and didn't work, I would not follow it. But I follow it because when you think functionally from a mechanical stand point, people get better. People that you think would never be able to get better, get better! And I think one of the things from his stand point that stuck out in a lecture that I attended at a conference one time in California, he said "if you treat this way, you will have a splitting headache everyday. You choose a path". Treating the way, if you think functionally, it's much harder than treating with what some of the protocols say. It's very difficult and it gives you headache. But if you like it, you deal with it and he is right. You open a can of worms

sometimes – somebody comes in with what would be on the surface an easy foot problem and the next thing you know is that you are trying to rework the whole thing, and it becomes a very difficult thing. Communication can be an obstacle.

Researcher: What does he look like when you look in the window at him working?

Subject: I think he looks like somebody who has been doing this a long time and has made a lot of mistakes. And has gotten to this point where he is because he has made those mistakes, and he really found out what works. He admits his mistakes and says “wow, I just didn’t know that” and “the only way I got to that was from this expert, this expert, and this expert, and the patient.” When you look at what this expert says and put it to what the patient is telling you and what the patient is doing, how the patient is moving - that is how I got to where I am. He looks like somebody who is very confident in what he does.

Researcher: Let’s take a look at the next one. It might be easier to start at the novice and go back. Who was the novice and when were you a novice?

Subject: I was a novice in May of 2000 when I got out of school [laugh] or maybe six months earlier in my first clinical.

Researcher: So you are looking at a range?

Subject: The novice is a person that comes out of school and has got so much going through their head, they have difficulty focusing. It’s a concentration issue. It’s a matter of somebody sitting in front of a real live patient and trying to digest what they just told you, and then all of a sudden flipping through your head all the things you know, you think you know, and how do you get them better. And I think in doing that, one of the things I think the novice loses is the ability to listen.

Researcher: And if you are looking at them work and their interaction with the patient and their decision-making, what would they look like?

Subject: Not holding that confident air about them! In my experience working with quote unquote novices or new clinicians, you can really see it in their eyes. It's the first thing that I think I pick up on. They are trying to access parts of their brain and they are so nervous [laugh] so their eyes are shifting away from what the patient is saying rather than really trying to listen to what's going on. They look unsure when they place their hands on somebody if it's a situation where they would do that manually so to speak. Hesitant!

Researcher: How about the next one, the advanced beginner?

Subject: I think the advanced beginner is a step ahead of the novice in the sense that if they treat four people and two of the cases they have seen before. Then all of a sudden that clarity in their face, that confidence level emerges and then all of a sudden you say "wow" watch how they are moving, watch how they are interacting. And then on the third person, maybe it's a new situation, they have a better understanding than they did when they were a novice but they revert back to that time of "I am still really learning."

Researcher: There is a fluctuating level of performance?

Subject: Performance yes! I think of performance instead of confidence. Their confidence does not fluctuate as high but certainly their ability to perform and make people better certainly would fluctuate.

Researcher: How about the competent clinician?

Subject: I think the competent clinician can hold his own, but maybe doesn't really have or isn't necessarily the guy that the docs or other people would go to for the difficult patient. To define the difficult patient as difficult to deal with physiologically, musculoskeletal or

neurological stand point difficult, the competent clinician can probably do them well, is it the best person for them to be seeing? I'm not really sure. Some of the more standard things that we treat in therapy, they would be fine handling.

Researcher: But physical therapy says that autonomy is synonymous with competence. When I say that what does that conjure up?

Subject: They should be able to be competent in handling the difficult patient. I think they can do it in a safe and effective manner. But I think if you had to grade them good, better or best, if they are not necessarily in the expert calendar, maybe they [patient] will get better maybe they won't; maybe they'll get better but over a much slower time period if time is a factor, and sometimes it is not. Certainly from a physiological or neurological stand point, or musculoskeletal, sometimes its not. A lot of the time it is. The competent clinician wouldn't steer them in the wrong direction, isn't dangerous at all and can be left alone – that sort of thing.

Researcher: But if the physical therapist is competent when you get your license?

Subject: Are you supposed to be competent when you get your license? Is that you are asking?

Researcher: APTA says that the physical therapist is supposed to function at the autonomous level. When you get your license, you are a PT. What is it that I am saying?

Subject: I think that when you are a resident, you are also a doctor, but you are a resident. You still have people that you are answering to and people that are watching you. Just because you are a PT and you passed the test, should you be left up to your own devices all the time, I don't know.

Researcher: That's one of the questions I have.

Subject: I don't think you should. I think that most states don't have practice standards in the sense that I am not required to take continuing education classes. I think I should be. I have worked with too many people where their expertise slips because it's just a job now and it gets old, and they get tired. They don't keep up with things and say "wow" we didn't know this ten years ago. Going back to Gary Grey, I think when you look at him he is the expert because he is not only up with what is going on now, but he is striving everyday to continue to find and correct mistakes that he could possibly make, or how he could make things better. I don't think all clinicians do that. I've worked with a lot that don't do that.

Researcher: So this motivation or inclination to do better, how does that impact the levels?

Subject: I think that defines in my opinion how you become an expert. I think that if you don't have that motivation you can't call yourself an expert or be considered one. If somebody calls me an expert, maybe in my brain I am just shy of that because I always want to be better and I can always do better. I can look back at every patient that I have had in two years and say you know that "X" many got better and they did really, really well, but I also probably could have also done in retrospect looking back, maybe I could have done a little bit more of this or a little bit more of that.

Researcher: So as an expert you have a retrospective view. There's an accountability that you place on yourself. How about the proficient person? When were you proficient?

Subject: [long pause] Proficient leading up to what the expert is, just so that I am understanding the definitions? I think that I was proficient about ... that's a good question, maybe three years ago before we came up here. I worked in CT, both [employers] of which have more than fifteen years of excellence, expert clinicians. There came a time when they came to me. In my personal career, this was a monumental thing when they would say "hey, I

need your help on this or what do you think about this!” So when you see what other clinicians are doing and when they start looking at you saying you probably or could have the answer to this issue, I think that definitely holds you at a new level of proficiency.

Researcher: What did they see, what qualities did you think they saw? How did they recognize, you know, being proficient?

Subject: “That good enough was not enough” was I think the first thing. I think the ability to problem solve and research was a big component, and I still hear that today. I still tell the story of if I went to another PT school, I probably would have failed out because I can’t just sit and get talked to. I think the PBL thing gave me personally, the ability to say “ok you have a problem, go out and find the answer,” whatever that is, PT or not PT related. I think it has kind of changed my life in a sense and I carry that in me everyday. I have books lying all over the place and I leave them out in the patient’s view because if I don’t know, you don’t know, you look. I am not sure a lot of people do that. I have worked with a lot of clinicians who don’t do that. They are almost afraid to portray that to people that they don’t know, or they are afraid to let people know that they think they might be able to find a better way if they look. I think my old bosses saw that in me and they knew that I was constantly doing that, so that when they hit a stumbling block or they hit a wall, here was somebody they can go out and get those answers.

Researcher: Where were you when you were competent?

Subject: Where was I when I was competent? I was probably at the same facility [in CT].

Researcher: Were there identifying effects that you had that you could say, yes I was at the same facility when I was competent. We talked nicely about expert, we talked nicely about

proficient, novice you knew off the bat, advanced you laughed. So now this competent person we are back to that.

Subject: That middle of the road!

Researcher: Yes, so when were you middle of the road, what lets you know now that you were middle of the road. You said so very eloquently here, and the proficient. What let you know now that you were middle of the road?

Subject: I think the shift comes when the majority of your patients get better as compared to those that don't. Excluding the patients that maybe would not get better no matter who they saw, which I think is a hard thing to define or figure that out. My first experience with that was in Helen Hayes [internship] when we treated a gentleman who ended up having back surgery. My clinical supervisor was OCS, her boss was a fellow of the American Manual Therapy Association. They were recognized by our profession as being definitely experts, and hearing from them that this is a surgical patient, what therapy and exercise and whatever we could offer him was not going to help. As a young student and novice, it is hard to accept when you first hear that, as I said you think you can do all, I think when you become competent you are at a point where excluding those people that are beyond reaching their goals by pure therapy alone, maybe you should look at percentage and the percentage shifts to more of my patients that are getting better than those that are not. Sometimes the ones that don't get better are not necessarily your fault because it's a compliance problem and issues of that sort. You feel good in... you can feel comfortable in pretty much any situation, things don't necessarily scare you as much, and you have a confidence level in that you are not afraid to ask if you don't know because it is not an issue of a certain lack of knowledge but understanding that other people can bring other things to the table. You can treat in the arena

that you want to treat, and I think that also has to do with the amount of time you spent in a particular arena. Now I am in the outpatient orthopedic arena, would you say I'd be competent in pediatrics at this point, not at all, because I had not been in that area in three years, since I mentored in school. I did have experience; I would still be nervous and still need a lot of guidance and help.

Researcher: When I say productivity, what does that bring to mind?

Subject: Productivity! How productive is a person is how well they are able to contribute to the arena that they are in. Whether it is their own clinic, whether that's where they work, are they just very passive, not very productive but just meeting the minimum requirements is non-productive. Somebody that is productive goes beyond that and makes a contribution.

Researcher: Is there a difference in productivity?

Subject: I think maybe at the competent level you start becoming much more productive absolutely. I think level one and two, novice and advanced beginner, you are so overwhelmed with the fact of what it is you are trying to do everyday that it is hard to be productive beyond just getting through the day and getting that patient going. So it's hard to go beyond that.

Researcher: Do you think that this can be measured? Somebody's level can be measured or applied and then on top of that who's going to tell you are competent, let's say! Who is going to tell you where you are?

Subject: I think ultimately the patient will tell you where you are! [laugh] From a realistic standpoint I think it is going to have to be a governing body such as the APTA; they would have to define the expert or the competent clinician. I think it could be measured. I am not sure on the accuracy at which it could be measured. But, I think that there are certain

guidelines that would make sense, years of experience, ability to pass some type of objective testing. I think there would have to be a measure of somebody actually being with that person because I can think of three or four people on my brain right now that would qualify. They have been doing it for ten years, they are smarter than me in memorization and are great test takers, and they have been in the area long enough. So they could regurgitate and pass the test and qualify for the number of years that they have been doing it. So maybe on the surface, they would look as somebody who is proficient or expert, but when you watch them in their day-to-day interaction and how their patients are doing, they are not necessarily that guy that I would go to. I don't know if that makes sense?

Researcher: That makes perfect sense!

Subject: Yes. So how would you do that? You would have to say here is somebody who has been acknowledged as an expert by whomever, APTA, now they need to spend time with you and kind of watch you work. Is that practical, I don't know?

Researcher: I am hearing that there is really no time frame that you can assign to these?

Subject: I don't think so, no. I think that I am accelerated to be quite honest with you which has a lot to do with... I have been fortunate not only in my schooling but who I chose to work with. Because I know other people who have been out as long as I have been out and are still just banging their heads against the wall for a variety of reasons.

Researcher: Do you think the research is valid?

Subject: Absolutely! I think it's a great thing to understand. I have not talked about it openly so it's really good to even hear myself think this through.

Researcher: Anything you would like to add?

Subject: No. I think you have got your work cut out for you. [laugh] I think it's easy to define number one and number five. Easy is not the right word. It is easier to define novice and expert. I think you have certainly chosen a hard thing to define, like you said, it's middle of the road. How does somebody know that they are middle of the road, and how are you told that? I think certainly the novice if you are out, and if you are weak out of PT school nobody in their right mind would call you an expert. If you are out fifteen years and you have "X" many clinics and you're a professor and you've published, I think you could warrant that title because you have been there and done that as a teacher. Then there is the big grey area in the middle, which is the large portion of our profession.

Researcher: Thank you.

Subject 102: Expert Physical Therapist

Researcher: We've read through the general items of the agreement and the statement of confidentiality and participation. What is your date of birth?

Subject: February 18th 1971.

Researcher: And what is the highest physical therapy degree earned?

Subject: Master's of Science.

Researcher: What was your year of graduation?

Subject: 2000.

Researcher: And what institution did you attend?

Subject: The University of Connecticut.

Researcher: And any certifications or specialist credentials that you've earned since then?

Subject: Manual therapy certified.

Researcher: And what year was that?

Subject: I guess 2005.

Researcher: OK. And the amount of time that you've been working in the profession?

Subject: Aah, over six years.

Researcher: Ok. And the amount of time that you've worked in the outpatient arena?

Subject: Eleven years

Researcher: Um and you have read the five definitions of the professional development.

What course work have you completed over the last few years? I know that you have talked about the manual therapy certification but have you done anything else, even within the company?

Subject: Yeah, I just become ADAP certified which is a analyzing work stations doing work ergonomics, doing back education programs all those sort of things for industrial medicine manual therapy certifications. Yeah, I've taken various continuing education courses...

Researcher: Such as?

Subject: Mulligan, what else, McKenzie, taping courses.

Researcher: Where did you take your manual therapy?

Subject: MTI. It's called Manual Therapy Institute. t was in Baltimore. It was two and a half years.

Researcher: Oh, OK. Wow!

Subject: Every eight weeks, weekend course. [laugh] One of seven credentialed manual therapy institutes - programs by the APTA.

Researcher: Great. Umh, Are you thinking of OCS, have you done that yet or no?

Subject: Yeah, Probably next year I'm going to take that.

Researcher: Good for you! Have you participated in any clinical education, college teaching or mentoring of student or junior staff?

Subject: I do mentoring with new therapists and I also have students.

Researcher: And how long have you been doing that?

Subject: Aah, three years probably

Researcher: Have you ever taught any courses on college campuses yet?

Subject: No.

Researcher: Intend to?

Subject: Yeah, eventually.

Researcher: Good! Can you give me a few examples of any interesting cases that you've tackled recently?

Subject: [long pause] Recently we had a patient that had a median nerve injury, just a neuritis, like an inflammation of the nerve, and it was good to see that, and we treated her you know with various manual techniques, neural flossing, soft tissue mobilization, and she got 100% better so that was my most recent interesting case.

Researcher: Any one other case that stands out to you that was just like, oh boy?

Subject: Well yeah, after I was manual therapy certified, and you start to look more at people holistically, I had a guy that was sent over from the doctor with a hamstring strain from lifting a box off the floor. Another therapist was treating the guy for six, seven visits. I ended up seeing him, really got more into the history, found out that it was, you know, more of a radiculitis coming from his back, treated his back and he got 100% better in, I think, two or three visits. It was a pretty amazing, so it's a recent interesting case.

Researcher: Have you ever participated in any kind of clinical research?

Subject: Aa, just in school. That's it.

Researcher: What was that? What did that consist of?

Subject: I did a case study for my master's. Also I was a subject in various research they were doing at the school at the time.

Researcher: Oh ok, that's good. Your colleagues describe you as being an expert? Do you agree or disagree?

Subject: Disagree.

Researcher: Why do you disagree? I shouldn't have said that!

Subject: [Laugh] Well I don't know. Expert to me 'tis a life long process so I don't know if I'll ever reach that!

Researcher: OK.

Subject: As far as my standards go I don't know. I work, I mean I know 'X' people I consider experts. I don't know what truly an expert is as far as physical therapy as a whole in the United States. I don't know where I fit in with that. I figure I think I have a lot to learn still and... you know, I don't know. I think I'm a good therapist. I don't know if I consider myself an expert [laugh].

Researcher: Oh alright! Um, [pause] describe to me somebody who you think is an expert then?

Subject: Um, probably a therapist I worked with when I was an aid. I haven't worked with him in quite some time. But his name is, can I say his name?

Researcher: Mm hmm

Subject: Jim Jeblanka. He just ... He's always thinking. He's great with the patients, has a great rapport with the patients, um, always when I worked as an aide he wanted to teach me

things and show me things: and ah, he was great to work with. He tries various techniques, he has a large tool box, you know, he was not pigeonholed. He's not a cook book therapist, and, ah he thinks outside of the box. You know I was always very impressed with his skills.

Researcher: If we take a look at the definition of expert and you think in terms of like the scope of possibilities, so these are the vocabulary words that you would look at. Or the kind of things of that you would pull out. Describe your expert for me.

Subject: From these four?

Researcher: Yeah, for example...

Subject: This sample I gave of Jim? Or just in general?

Researcher: What does he look like when he moves?

Subject: He's fluid, he's very comfortable with the patients, very confident. When he speaks with the patients, you know, he is very direct, and there is no hesitation, and he seems very fluid, confident.

Researcher: What about his knowledge base? 'Cause you said he had a large tool box. So my assumption it is that it's his knowledge base. What about his clinical reasoning?

Subject: He's always thinking like is it soft tissue versus ligament, is it muscle versus ligament, is it ah... what is the tissue at fault? Very knowledgeable. His anatomy, you know, which helps to pin point diagnoses in my opinion. Very thorough with his evaluations. Always reassessing the patients, always seeing what's wrong and trying different techniques to see what works.

Researcher: What did you learn from him? What did you take from him, because you became a PT?

Subject: [Laugh and long pause] Well, he is a great person first of all and just overall, so I took that from him. And he always had fun with what he did. And I think that I admired that about him. And, ah, also that he was, you know, therapists are busy when we're treating or professional; he always took time out to educate myself and other aides that worked in the clinic, and just his ability to get someone better quickly, to see a smile on the patient's face. When sometimes they come in grimacing and four visits later, they are out the door feeling good. He is definitely a positive influence.

Researcher: Um, OK we are going to come back to you again because we can get some good examples.

Subject: OK. [laugh]

Researcher: How do you describe your interaction when you meet a patient for the first time?

Subject: Well, I think I look at the patient when they walk in the clinic, I want to feel out what kind of person they are. You know, there's different kinds of people. First of all, as a therapist you want to gain rapport and if you can gain that rapport, they'll trust you doing anything with them. So, you know there's serious people, there's people who like to joke around, there's quiet people. I feel out their personality as they are walking in. I get their body mechanics, their non verbal communication, and I try to figure out "how am I going to approach this person"? Am I going to put on my joke around face? Or am I going to be very serious and clinical with them and then I take it from there.

Researcher: How do you decide that a patient of yours has benefited from your intervention?

Subject: I look at things very objectively, especially in this setting. Once I've treated them, if they're able to function, do their activities of daily living that they need to do without pain, I'll consider them a successful intervention. Subjectively I take that into account as well

because I want to know what they're doing at home but you know, I really look at them objectively. What their strength is, their range of motion, how their functioning like lifting boxes and doing what they need to do at work.

Researcher: Let's see. Let's take a look at these levels again. Do you ever remember being a novice clinician?

Subject: Yes! [laugh]

Researcher: What was it like?

Subject: Well I think when you're a novice clinician, and, it, again, it goes in this type of setting and being around workers comp and some of the doctors you work with. At first you are a novice and you don't know what's going on. You're defensive a little bit and you're also... if you think... and this is a big thing and I noticed in myself, [pause] if you don't know what to do or how to treat the patient or you don't feel you are getting them better, you'll start to think "oh they must be pulling my leg", and its hard for a lot of people to grasp that in this setting. And a lot of the students will come through here and think "oh you know everyone is full of it" but in reality in this clinic anyways 99% of my patients are real. And I think it has to do with skill level. There's a lot of baggage people carry with them doing these blue collar type jobs and they have supervisors that don't understand. They are not... they are old school 'rule by the iron fist' type supervisors they don't understand or not empathetic with patient's pain or the employees'. So they add up; supervisors that upset them, they've got insurance companies bothering them all the time. There all these things, smoke fields that are up that you have to look through and focus in on their objective problem that they have either in their shoulder or back, and so over time that is what I have learned to do.

Researcher: So as the novice you are not able to do all that

Subject: No, you are not able to do that. You hear all the secondary stuff that the patient's telling you about. It is hard for you to look passed those things. You think that, well, the person hates their boss. That's why they are here. But, in reality they are just venting to you as the provider. And you have to sit back and listen to them, focus on what their problems are. It's very rare here that we have someone walk through the door that's a malingerer. The true definition of the malingerer is some who has no pain that's telling you they have pain. I rarely see that.

Researcher: That's something! Can you describe a novice to me and maybe take a look at these models or descriptors. Who do you know who is a novice? Who fits that/this? Subject: Anybody? Specifically or generically?

Researcher: Give me both. Generically what you think the novice is. And then, who are you drawing on, who are you pulling from?

Well I think a novice is someone who is on their last affiliation that comes here. And sometimes they are not even a novice. [laugh]

Researcher: OK. So you think that sometimes student on their last clinical are not novices?

Subject: I guess that's the expectation by the end of the affiliation.

Researcher: What do you see? Cause I'm hearing that novice might be the student on final affil?

Subject: Right. That's what it should be correct? And I don't know any novice therapist that I work with right now

Researcher: OK

Subject: So...

Researcher: What were you like as...? Taking a look at this novice definition; where were you?

Subject: Well see now, can I be modest? I didn't consider myself with the setting I went to as a novice clinician just because I was an aid for five years while I was going to PT school and I went into the same setting, occupational medicine. So I did have experience of the situations, which I was expected to perform.

Researcher: So are you saying that maybe a little experience before brings you passed this, when you go to actually work?

Subject: Yes I think it's definitely beneficial.

Researcher: OK. Good. Alright, let's go onto the advanced beginner. [long pause – reading] For physical therapy who is that person? Or, can you think of anybody? I need to know the characteristics of this advanced beginner person. This is very general [list of characteristics] and then how does that physical therapist who is the advanced beginner function? Who is that person and where you there? What did you do when you were there?

Subject: Yes, I think that I was at that point definitely. Myself, I used resources. I'm definitely a person that realizes that you need to beg and borrow from everybody. So I would call other clinicians I felt were knowledgeable and proficient clinicians and just ask them "Hey what would you do with this patient? What would you do with this patient" and just use your resources. To this day if I see a therapist doing something and I like it and it seems to work, I steal it from 'em, I mean, I have no problem, you can steal from me and I'll steal from other therapist [laugh, laugh, laugh] that's what's been going on for centuries. So, yes, I mean to me that would be I mean probably a student out for a year, maybe. I mean a new grad out for about a year.

Researcher: So you think there is a time frame to it?

Subject: [Pause] yes probably. [Pause] There's a time frame but also what are your personal goals? I mean I think you can advance quickly through these stages [pause] if your goals are to become an expert clinician.

Researcher: So you're saying that someone's motivation will get them through this quicker?

Subject: Yes, if you just sit back and treat patients, and you take a mind set, well, I'm going to 'shake and bake'? That is how you want to work and you go home at the end of the day.

And, I think maybe you would be stuck there forever, but. This old motivation has a huge part of it. Some people would go to therapy school, get out and don't like being a therapist, so and then they might feel stuck. "I have my master's or my doctor's, be real and what am I, going to go back to school and get another degree?" I've seen them do this. So it all has to do with motivation and how much pride you take in what you do.

Researcher: OK

Subject: So, time frame? Yes maybe could be a vague time frame. But, I think it has to do with the person than anything.

Researcher: What about the competent clinician?

Researcher: Do you see much of a difference between proficient and competent?

Subject: Let me see. [Long pause - reading] Yes, it doesn't seem like there's much difference.

Researcher: So can you describe to me what you looked like and maybe the environment you were in when were competent or describe to me how a competent clinician functions that you've seen or observed. Who are they? What are the characteristics of this competent

person? How do you know that you have a competent clinician with you? Or, how did you know that you were competent?

Subject: Yes, I guess competent to me would mean, based on this, is that they're able to function, independently, treat, get people better; they're competent! They fit the role of therapist, but they don't go above and beyond.

Researcher: OK.

Subject: I guess you get to that point when you feel comfortable in evaluating a patient, coming up with a treatment plan, and then eventually discharging them. Um, it does not mean that you get them better any faster than the average therapist. But, you do the job. Patients, they're happy with what you did for them, and they go on their way. Like I said to me, seems that what would be the majority of therapists.

Researcher: So what do you think about the quality of their movement?

Subject: Yeah, I think a competent therapist will flow, and will look confident, use good body mechanics treating patients, exude confidence when they enter the room.

Researcher: What do you think about their knowledge base or their clinical reasoning skills?

Subject: I think your competent clinician is able to get through most cases. In an outpatient orthopedic world, they are able to treat the tendonitis and the shoulder, and the patella femoral syndrome in the knee. If something comes, a curve ball comes like as a brachial plexus injury or something they might not be able to jump on that as I would see it. So I guess their analytic thinking is [pause] able to pick up things that stand out at you and things that maybe are hidden or not as easily diagnosed or treated are maybe missed. So that's how I feel about that.

Researcher: When did you know that you became proficient? What were you able to do when you knew that you became a proficient therapist? Or are you a proficient therapist now?

Subject: Yes, I feel I'm a proficient therapist. I think why you said you're able to look through all these secondary things going on and you are able to focus in on what's causing the person's pain. I think, to me that's a proficient therapist. Rather than just saying "Ah this person's full of it, or they are just trying to get out of work. You know, in this type of setting, again. You're able - I feel that I'm able to get people better a little bit faster than the average therapist. I think that has a lot to do with my manual therapy skills, looking at the person holistically, the whole body. I tend to bend the rules a little bit. If someone has a lateral epicondylitis, I might move up to their neck [laugh]

Researcher: So you feel confident enough to know that the rules say that you treat the location or the region of diagnosis? You know the proficient person. Sounds like you are there? Has the environment or support from either colleagues or mentors helped you with you getting through these levels?

Subject: Oh yeah, definitely yes.

Researcher: How?

Subject: Just from bouncing ideas while working with other therapists. Saying "How would you treat the patella femoral syndrome?" I still learn everyday. I learn something from other therapists. I think it's great to work with different therapists, get their approaches. Like I said, I'll steal from anybody.

Subject: [Laugh] I'm not afraid to admit it! There is so much knowledge out there and to research it all yourselves is pretty much impossible. So if you know someone's a competent clinician and they do research, and they read, you trust their judgment. They have a technique

to use, yes, I will try it. So I think definitely being first mentored as an aid helped in my development, and speed up my development I think. Working with other therapists has helped my development.

Researcher: How do you interact with folks who are at these various levels? How can you tell, when you are working with a clinician, how do you know that they are in a particular spot? What strategy do you put into place? Do you watch them? Do you listen to the patient? Do you figure out what kinds of questions they are asking you? How do you know when you have a staff member that you've hired to come into work with you that they are at a particular place within these five frameworks? How do you figure out how to treat them? How do you figure out how to mentor them?

Subject: I think one of the biggest clues to tell if someone's.., as a matter of fact, we have a new therapist that works with us, not here. She's probably proficient. I would consider her a proficient clinician. I think like you said, it's that movement thing. She's very confident when she calls patients in. Very comfortable with patients! I never feel like she's uncomfortable at all. She does techniques on her patients. She knows if she does a technique and a patient gets a little sore, and might make them worse. She understands that happens with the profession, and is not insecure about that at all. [She] Explains to the patients," hey this happens sometimes." Just very confident in her movement how she approaches. How do I know she's proficient? Patients get better, patients love her, she gets them better quickly. She is definitely.. , going back to how you separate these people, definitely. A proficient clinician to me is someone who does something for a reason meaning you don't give someone hamstring stretches because it's their back. You give them hamstring stretches because they have tight hamstrings. And you feel it's pulling their pelvis down and giving

them a posterior tilt. She works that in that way. Everything she does is for a reason.

Sometimes therapists that are like advanced beginner, or I wouldn't say competent therapist – maybe between advanced and competent, they'll tend to do things because that's the body part. It's a shoulder! We're going to do internal and external rotation. To be able to do everything for a reason is a proficient clinician.

Researcher: I'm going to come back to you now. Your colleagues describe you as an expert. You said no initially. Tell me why you're an expert?

Subject: [Laugh] I don't think I'll ever consider myself as an expert. I don't know, maybe that's part of being hard on myself.

Researcher: You said that there was like a grey..., time is part of it, but it's kind of a grey area depending on the person's motivation. [Laugh]

Subject: Right. Well, to me expert is at the end. I've only been a therapist for six years, am I already an expert? I don't know. Maybe I have a time frame stuck in my head. I tend to think that I'm not. I don't know what makes it. Is it time? Is it knowledge? Can you be an expert after a year? I don't know. In my opinion, no I don't think so.

Researcher: That's OK.

Subject: I don't know why..., my colleagues think I'm an expert?

Researcher: Yes.

Subject: I think with every patient. Every patient that comes I'm thinking. I'm always re-assessing finding out what I can do. Not every patient needs manual therapy. Not every patient needs therapeutic exercise. Sometimes I've treated patients..., another thing when you've asked me what got me through these stages. Sometimes patients come in and I'll do manual therapy with them – see you later. I don't do any modalities, I don't do any exercises.

They feel better when I leave. I feel that I've corrected them. I know that they're here for an hour with me three days a week. I know what they do at home is sometimes a heck of a lot more than the exercises we're doing here. I'm not cook book at all. I definitely treat everybody as an individual. Use your experiences from other things you've seen, but you will still see an injury that you've never seen before. I think that will happen as long as I'm a therapist. Getting something that is just out there. You will get something that does not fit any clinical-decision pattern or protocol or anything like that. Maybe that's why they consider me an expert. I'm always thinking, trying different things, I'm willing to learn. I'm highly motivated. I know when I come to work my job is to treat patients, I put all my other stuff aside. It's their time; it's not my time. My focus is on getting patients better. I take a lot of pride in what I do.

Researcher: Any other comments or questions? Like why the heck did you come here for? What are you doing?

Subject: Does anyone ever feel like they are an expert?

Researcher: No. [Laugh, laugh]

Subject: I thought I'd ask! I think I still have a lot to learn. I'd consider myself a proficient clinician. Maybe if I put myself as an expert, then, [pause] maybe I'd feel like I had no more motivation, I don't know. I always want to set goals. I have clinical goals of getting my OCS and my fellowship as an FAOPT. Also, I have educational goals. I'd love to get my PhD. in education one day, I'd love to do that. I always have goals. So, that's it.

Researcher: We're good?

Subject: Yes.

Researcher: Go for it!

Subject: Say that all again?

Researcher: That's OK.

Subject: I take a lot of pride in our profession. I think we have a lot to offer. I think we have more to offer than chiropractors for musculoskeletal injuries. Some PCP's, we have more to offer, and they gain in the long run. With direct access we just got in CT, eventually I think it will save society money if we can get people to come see us first. We're able to have good clinical decision-making and rule out things that are not physical therapy. But, I hope the doors opens for us to be sole clinicians with our own practices. With physicians owning physical therapy and big corporations owning therapy...

Researcher: You were saying that you felt your hands were tied?

Subject: Hands are tied, and to me it feels like it's a large wave that's hard to push back against. A lot of things are in place, where how are you going to change that? How is the APTA going to step in and really get strict with these rules of physicians not owning physical therapy practices? I hope it comes to that one day, don't know if it will happen in my life time, but I definitely think our profession has a lot to offer to society and we can help to save money, treat people right. We spend a lot of time with patients. We see them three times a week. That's more than any physician sees a patient unless they are in the hospital.

Researcher: You were saying that you would love to open a practice. Why?

Subject: [Pause]I would love to have my own practice basically so I can run things how I would like them to be run. I do have a high level of expectations of how we should treat patients. I want clinicians that spend a lot of time and really focus on the patient. I don't want cookbook therapist. I work myself and if I eventually need more therapists I would make sure

I got someone with the same standards as myself. I just feel owning my own clinic, I would have more to offer than working here.

Researcher: OK. Good

Subject 103: Expert Physical Therapist

Researcher: You've read the general items of the levels of professional development and I have obtained your informed consent and your signature.

Researcher: What is your date of birth?

Subject: July 1st 1955.

Researcher: And what is the highest degree you have earned from physical therapy?

Subject: A bachelor's degree of physical therapy from the University of MA, Lowell, 1987.

Researcher: Any certifications or specialist credentials you have earned?

Subject: No. Many special education courses over the years, many, many, but no certifications.

Researcher: So no CSCS or..?

Subject: Never completed!

Researcher: Did you attend the Clinical Instructor Training?

Subject: Never finished it! Participant five did not complete that course.

Researcher: Have you done any college teaching?

Subject: Yes. I was an adjunct professor for Housatonic Community College for their Physical Therapy Assistant Program. I also was an adjunct professor for Hunter College in NYC who did their orthopedic course work at Hospital for Special Surgery when I worked their and the staff rotated teaching different subjects, so I have done both of those.

Researcher: What were the time frames of those experiences?

Subject: In years?

Researcher: Yes!

Subject: Basically I was at the hospital until 1993. So I participated in 1990 when the program initiated, 1991, 1992, 1993 I left. At the Housatonic Community College, I believe it was in the winter semesters of 1994 and 1995.

Researcher: Have you completed any or participated in clinical education with local Universities? Taking students!

Subject: I have been affiliated with Sacred Heart University since 1998 taking a variety of students in a variety of manners from mentorship to full senior year final affiliation students through the gambit.

Researcher: Any other schools?

Subject: Yes. Boston University and several from when I was a supervisor at Hospital for Special Surgery with a myriad of schools. I don't know if you are interested in that. A number of different colleges. We took students my whole time there and worked with them.

Researcher: It's been a while. How about mentoring of junior staff or new staff?

Subject: Pretty much a big part of job. Our staff has always been small i.e. five or six people. But since it's so small and I've been the director slash owner, the mentoring especially of the clinical people is a huge part of my job. And when anybody is hired new we spend quite a bit of time on that. I monitor, help and supervise them throughout their early years, gradually backing off as they feel more comfortable and better in expertise in their field.

Researcher: Have you completed any course work over the last few years, including CEU's?

Subject: Basically, I have to take a minimum of courses to follow the state requirement per year. But, of late I've found it very helpful the Hospital of Surgery where I was formally employed run many good weekend courses. So I have taken probably at least one, probably two for the last seven or eight years running. The nature of things could be anywhere from a special look at the hand or the wrist from a physical therapy point of view extending right through to Feledenkrais, extending right through to many, many sports medicine post operative, the latest and the greatest in the arthroscopic procedures etc.

Researcher: Have you participated in any kind of research?

Subject: I have participated in research. One of my great disappointments of my career so far is that I did not complete it. But in my final two years at HSS with the help of Dr. David Allcheck, who is the Mets physician, we did some pioneer work on Achilles tendon repair. Since I had had one on myself and I was interested, we began to use CPM's, continuous passive motion. Early movement, passive motion that we would do on a knee replacement just as well or on an ACL years ago, we began to do them in a straight plane on the Achilles tendon and began to gather data. The early findings were that we were returning people to sports and running probably three to four months sooner than had they been braced or casted. However when I left the hospital, the research was never completed.

Researcher: Yes. They needed you!

Subject: I will finish that at some point before I am done!

Researcher: Can you give me some examples of the interesting cases that you have tackled recently?

Subject: Any type of specifications to that?

Researcher: No!

Subject: Let me give you one case in particular that comes to mind. A young girl, we do not usually take pediatric patients, we are not a pediatric facility but this was an orthopedic issue and the parents were known to me as friends. To try to cut to the chase, the young lady had a bone cyst in her acetabulum which was devouring and demineralizing her bone and of course at her young age, they did not want to put a metal implant nor they did not want to do any type of replacement. The parents had gone from the Mayo Clinic, to Boston, to Mass General, to John Hopkins and then came to me, because they knew that I had worked in New York, for a recommendation. I recommended Dr. John Healy who was a metabolic bone specialist out of Sloan Kettering who used to work at Special Surgery. They liked him and he began the process of repairing her hip with a graphite like paste. So basically what he did was he did the osteotomy, he removed the bone cyst but he needed to have a pliable material for a young five or six year old. So he applied this graphite like material mixed with bone paste and metal matrix to allow a little bit of expansion growth but also solidify the joint. She had a Spika cast on for three months and then we began the rehab which took probably six months relearning. I must admit that I was on the phone at least once a week at the beginning to my friends in the pediatric department at HSS to guide me about the recovery speed of a five or six year old. But I am happy to say that she's been completed in therapy and she's now back full gym, full sports a year and half later. I felt actually very privileged to have worked on this case and to see the work that was done. Quickly another one, just again these cases that I cite are usually the ones that make you feel so good as a physical therapist. And really you scratch your head and say "you know that's why I came into the field." But a young man came in here, a teenage boy about sixteen, had gone, a very wealthy family, so they had gone to all the different doctors. He actually even had gone so far as to have a knee scope, they

found nothing, but his knee pain persisted. With the help of our staff who have become very adept, we began to check his alignment, and his pelvic obliquity and the tightness of the muscles around the knee and come to find out, he had almost a three quarter leg length difference, not true leg length but apparent because of an extremely tight ITB, extremely tight lateral hamstring group, hip flexor and a hip that turned in. So no one picked this up in the year of medical follow up, they actually went as far and did the scope and cleaned his knee and found nothing. But once we were able to identify and give him the proper exercises to stretch that leg out, his leg began to again descend, become even with the other, and his pain went away. The shame of it is that he had to have surgery. The good story is that he was again back to full function with a set of exercises that he could perform fifteen minutes a day before and after he plays.

Researcher: Your colleagues describe you as an expert. Tell me why you are an expert? Do you agree/disagree? What makes you an expert? You have your definitions. So what do you do that makes you an expert?

Subject: Well you know it's a little difficult for me to talk about myself in that way being the self-effacing number five that I am. [laugh] But I'm in the field now since 1987 and we are going on to twenty years. I did get in the field a little bit later. I was thirty when I graduated. So, I have most of my adult life has been learning and doing physical therapy. You have to lead from the neck up not to, just by observation and listening, learn a lot and gain a lot of knowledge. The other advantage is that I happened to pick and get accepted to an institution, when I first came out, where I could learn from the best, one of the best institutions. I was interested in orthopedic and sports medicine, that was the place that was local and I really threw myself into it being a thirty year old and already having a family. And I was able to

touch on things like research, and surgery, and biomechanics, and they even had a movement lab with six different video cameras, facilities that the normal hospital wouldn't even dream of. And the sports medicine that had at least two professional teams and three major colleges affiliated to it. I was able to see and get a lot of experience in a relatively short time in that institution. It has helped me immensely when I went to the private sector and when I jumped to suburbia. In 1993 and coming here in Greenwich, I was well prepared I thought much more so than had I worked in a small facility that didn't see the type of things I did. I was able to identify, and I was able to become a resource for the hospital because many of the people here who had the education, had the money wanted to get doctors who were a cut above, I was able to direct them down there. So that type of experience has helped me with my knowledge. Clinical reasoning and other things, basically they come with experience. I can recall clearly, even though I was thirty, thirty-one years old, coming out of school like most of us we have all a tremendous amount of facts in our heads, but applying them to a practical purpose is a completely different story. And, as we all know, who's been doing this field or any field like this for years, it takes years before you can put the pieces together consistently, and before you can have that thought process and say "oh yes, that's how is or that's how it should be." And again seeing a wide variety of patients, orthopedic, rheumatologic patients, seeing things that I would never have seen anywhere else has really helped me immensely in my preparation. So if you want to call me an expert, I really feel privileged that somebody in my field would call me that, but it is because of where I have been, how I have applied myself, and who I have been able to see.

Researcher: Describe your interaction with a patient for the first time?

Subject: That's a very, very important point! And I must say without that pontificating too much that I think that perhaps that's a point that first meeting with the patient is something that has to be stressed even stronger in our educational institutions. Because I can give you, I won't because of the briefness of this time we have together, but I give you fifteen examples off the top of my head in the last two years of patients that have come in who have had a lot of trouble, whether with surgery before, their medical system has failed them, they are fearful, they don't know what their insurance is going to pay, they are nervous on seven different levels. And if you are not able to cut through some of that and put the patient at some kind of ease, talk to them directly, looking them in the eye, patting them on the hand, not in a sympathetic way but in an empathic way, and make some sort of sense, you are not going to be able to solve it in one visit! But let them know that you are on their side, that you are going to try your best, and things that you don't know you will endeavor to find out as a team. I think that that is unbelievably important; I think I try to stress that. Quick example is that in the last month we had two women who have had total knee replacements and have had post operative problems. One was a medical problem, the other was poor therapy. They came in, they had to be manipulated. They were hysterical! First they were traveling three or four towns down, their insurance; they didn't know if they had exhausted it, they had a million questions. I called both of them up, this is my style, I'm not saying that everybody has to do it, before they came in for their first appointment. Each time a doctor had personally recommended them to me and to AMFIT, I made sure that I took five minutes to call that person, put them at ease before they ever walked in the door, let them know what we were going to be looking for, familiarize them with what we were going to do the first day and it made all the difference in the world. And they both made a comment to that effect,

“had you not called, I may not have come.” So again, knowing what they had been through prior to this helped me. And I think that as far as call it virtue, call it caring, call it whatever you want to call it, that human touch, that interest, I’m reaching out to them before they even sign a paper, sends a message that “you know what this is a business and we are here to help you, but we do care about you, and we are going to do our damndest to help to do that!”

Researcher: How do you know that your intervention has benefited them?

Subject: Well I mean basically again that can be, that’s something that with experience you can tell. Goal setting we all learn in school that it is very, very important. As we get further along in the field sometimes our goals aren’t..., some goals are very specific and other goals are very nebulous. We are going to wait and see how things go. The way somebody moves, the way somebody gets on and off the bed, the way they walk into the clinic and then oppositely walk out can tell you an unbelievable amount of information. Sure it is important that how much they bend their knee, that’s why the doctor sends them. But more than that how are they walking, how are they getting around, do they have confidence on the leg. These are the things you pick-up, and those sometimes unspoken things, sometimes undocumented things, are the things that really can tell me how somebody is doing. That the best I can say!

Researcher: If someone was to stand outside the window and watch you working with a patient, how would you know that you were the expert versus the junior person?

Subject: That’s a difficult thing to say! I would imagine what would come across or what I would hope come across to that observer was the closeness with which I was paying attention to the patients own statements and problems, the attention I would spend to detail as far as their evaluation. After nineteen or eighteen years of doing this, the systematic way of going

about gaining information, not a hodge podge thing! Getting all your basics of the evaluation which we don't have to repeat, we all know what they are, and how you get them in an organized fashion if you have somebody loves to talk and interject, how you politely put that aside because you must focus on getting the information first, the dealing with the people sometimes either the closeness or the touch, the reassurance. Those are the things I think would come across to somebody who was outside the window observing. I would hope that they would see that it would be obviously somebody who knew what they were doing I would like to think, has been through this a few times and has gotten his message across to the patient.

Researcher: This proficient level that the research says exists, were you ever there?

Subject: I think sometimes I'm there. I would say that there are times lets be honest, the difference here is that I must factor in is that I'm a business owner. As you and I have spoken about many times about over the years that often can take the breath out of you as a clinician! There are many times, I will be very honest, that over the passed five or six years through the trials and tribulations of the business of AMFIT physical therapy takes away from attention to your clinical skills? My clinical skills were not where I would like them to be. Why?

Distraction, lack of time, constant interruption, really not excuses but reality. So I would not say that I would be here [expert] on a complete basis, however there are times when the light bulb goes on. Sometimes its seasonal, sometimes it's a lot of factors would cause that. I do think that I am there on occasion and I strive to say that I would like to be there more often.

Researcher: And that's expert!

Subject: Yes.

Researcher: But you see yourself sometimes being proficient!

Subject: No, I see myself being proficient, I don't see myself as the best I can be every time. And that may not be clear as I would like it to be. Do I not put my best effort in? No, that's not what I'm saying. I think don't often have or allow myself to have the time to follow through and to do all the little details that I'd like to because of running the business of AMFIT and dealing with the staff and the personnel issues and the variety of other issues. I know, I'll be honest, that has sapped me of my time, my thinking power, my reasoning, never my empathy but sometimes I would say to myself "I know I could have done better for that person, but I didn't have a chance" through no fault but my own.

Researcher: I'm hearing that the physical therapist has to negotiate a lot of details?

Subject: Yes, Maam. Very, very true! If one considers to be an expert, one does not gloss over the simple diagnosis because we can all assume that an ankle sprain is an ankle sprain. But how many have we seen by looking a little further or on the second or third treatment? Other problems now persist that the patient didn't even let us know about. But we can see a movement pattern; we can see a lack of strength or a lack of stability that we didn't see the first time. And that takes a consistency of thought and a consistency of organization.

Researcher: Of the people who we have there, and the levels that we are using loosely, which one would gloss over the simple diagnosis?

Subject: I can only say from personal experience that I don't want to speak for anybody else, but the advanced beginner and even the early competent clinician might be somebody who, and ironically we see that sometimes in this facility, they haven't been around in the field that long but they have arrived at the point where they are getting that light bulb. I think perhaps easy to get a bit over confident and they think they know too much, and again not to name names, but I have seen this in all levels of expertise including the expert! The so called

expert, because of the fact that they are people and we tend to get maybe a little more cocky “I’ve seen this at least twenty times before so its got to be this”. Well maybe, maybe it does, maybe it is, maybe not. The only way to know that is by keeping an open two, three, or four sessions in, and watching, and allowing for the fact that it might be more that you missed. You have to allow for that and if you don’t, you are not going to see it unless it hits you in the head.

Researcher: Tell me what were you like when you were competent or what is a competent clinician like?

Subject: My view of the competent is clinician is someone who is a solid performer, but may not be somebody who always takes it to the next level. A competent clinician for example in my view comes in on a per diem basis. You give them a treatment plan, you explain, and they can take that person and do no harm and can keep them on the level and that’s fine. Or a competent clinician has all the skills necessary to treat a person professionally, but perhaps may not go the extra yard, or may not know how to go the extra yard. Not to brand the field because there are so many fantastic people out there, but sometimes I personally see that in the homecare arena. Granted the clientele, the patient base of the homecare area is often elderly and is often or very, very injured because why would they be having homecare otherwise. Sometimes I wonder if they could have gone a little extra step or they could have maybe individualized these routine exercises a little more. Not knocking homecare, but for my opinion and for what I’ve seen, the competent clinician does a good job, but perhaps does not take it to the next level, going a little further, asking the extra question, spending the extra five minutes to adapt things and individualize it to the patient as they may have or may be able to.

Researcher: What happens to the competent person so that they become proficient?

Subject: I think there has to be a want; I think there has to be some sort of burning or at least smoldering desire in the individual to continue to improve. If that's not there, then it's not going to happen. You can take as many continuing education courses as you like but unless you have a want to continue to improve, no matter how long you are in the field, that will be a difficult area to achieve, proficiency. In my view, I think always continuing education courses are great going and visiting other facilities, and getting an idea. I love getting a patient who is home from college, from a University, and how the particular physical therapist and/or athletic trainer handled the situation and any ideas. I love going to different cities such as Pittsburgh where my wife had a surgery at the University of Pittsburgh and looking in their facility. I was there for a day and a half and I picked up three or four things. That was at a major institution! Never saw it before and I was fascinated. Keeping an open mind in this and you have to have a want to learn. You have to put yourself in a position to be able to learn from others, even if they are much your junior in the field. I never ever shut out a good idea or what seems to be a good idea. Somebody could be a new grad! Put your ego aside! Are you here to learn; are you interested in getting better? You can take things! Let's face it I am out of school nineteen years so its hard for me to believe that I could not learn a new technique or a new idea, a new something from a new grad. Yes, they have a lot to learn but they have just come through with the latest and the best information.

Researcher: Who's the novice then?

Subject: Well, somebody right out of school, or somebody has maybe not had a lot of life experience. The novice are to me, they are getting their feet wet. They are coming out and they have this whole head of knowledge, but yet they have not really perhaps learned how to

apply that knowledge or disseminate that knowledge. But let's not kid ourselves, there are people that stay in the novice level and never advance. I often wonder with these people and thankfully we don't see too many in our area. I often wonder about these people, I wonder to myself "why are you even in the field, why are you staying, you don't like it, you don't like people, you don't get along." Those are people who could "stick" in unfortunately the novice level and never look to find out, or look to get out. We have seen it. I know I have! I question why would you even stay in the field? You're not happy, you don't seem to want to advance, and your patients don't seem to get the best treatments from you. It is unfortunate, but that may be how I define people who are in the novice area.

Researcher: The observer standing outside the window looking at the novice, what would they see?

Subject: If I was outside the window, and I identified the person as the novice, I would see someone perhaps either disinterested, unable to communicate with the patient, unable to focus, disorganized, hodge podge. They haven't got their act together yet. They have the knowledge but they have not learned to put it together in sequence. They could be very empathetic and very nice, but they have not learned how to disseminate the information and use it. You don't have to do every special test on a particular diagnosis that you learned in school because it's an orthopedic lower extremity patient. You use the test that is most appropriate. Part of it is experience, part of it is wanting to learn and learning from others.

Researcher: What the difference between novice and advanced beginner?

Subject: The advanced beginner is someone who is starting to put the pieces together. They are starting to with more frequency see difficult patients or patients perhaps more complex and be able to put those pieces together. They may take a little longer, but they are trying to

get ahead and they are putting their best effort. They learn from their mistakes. They may make a clinical mistake of doing too many tests or inappropriate tests or looking at something that maybe isn't as important, and they learn how to disseminate information and use the more important. This is a process and the advanced beginner is in that process tooth and nail and is struggling and is in the process of improving. And has jumped from the novice because they show a little more organization, a little more effort, a little more congruency of what they are doing and what they need to bring to bear for each patient.

Researcher: I am hearing what is important is exposure, not necessarily number of patients, but frequency of seeing certain things. What am I hearing?

Subject: I think that you have said something very accurate. I think it does depend on the type of facility that you are in, and it does also depend on your work environment. This is not the forum to discuss the work environment and the caseload. Clearly someone who is in a caseload where they see a good number of sports medicine, joint replacement cases, Parkinsonian, Multiple Sclerosis, neuromuscular diseases and sees a variety and sees them on a regular basis is certainly going in my view if they are apt to and have a mind to jump from novice to advanced to competent a lot quicker because of the frequency and the amount of different people with similar diagnosis to know that the, yes, they are all hip replacements but they have a variety of symptoms. They all have sciatica but they have a huge variety of symptoms, they have the same diagnosis, but they are all different. Being able to identify the differences, tailor the program, and utilize your skill to help each one individually as best you can.

Researcher: Looking at the competent, APTA says they want physical therapists to be autonomous practitioners or practice autonomously and that is the expectation for the

physical therapist. When you graduate from PT, school you are supposed be an autonomous practitioner – what is that?

Subject: I don't know if I am able to turn this around and ask you a question, how are they defining autonomous practice? Are they equating that to direct practice?

Researcher: Yes they are! Or the sentiment of direct access whether it has been acquired within your state or not, the expectation is that you should be functioning at that level because you a physical therapist in a doctoring profession. You don't have to have a doctorate but doctoring professional means that you are responsible and the physical therapist of choice for the patient.

Subject: I have to say that that's a very complex, to my way, that is a very complex answer because autonomous practice in the legal form is the just coming to the floor in this state. It has been out in the open in some other states for a long time. Having not worked in that environment before, I still have a lot of personal questions about it. But I guess just for the definition of this particular interview...

Researcher: I want to know what your gut is?

Subject: By strict definition I have a little problem with it. The reason I have a problem with it and it might be old school, there are certain diagnoses and certain patients that it is not a problem. But there is a whole world of diagnoses and patients that it is nearly impossible, and the legality of it and the reality of it as we said before are sometimes two different things but I have a problem with being a truly autonomous practitioner if I don't have the ability to refer back to a specialist or for an x-ray or for an MRI and of course we still know that the state did state that a doctor can only order those tests. Many times I have certainly felt the need to send the patient back to the doctor, because I didn't either agree or there was something else

going on that I was able to determine through talking in evaluation. If these people come in without a referral having never been seen, sometimes great, sometimes I think it's absolutely necessary we need the help of the physician or their testing at least in certain cases which we could go through a litany of. I'm not saying I don't agree that autonomous practice should not be the goal and a thing to aspire to and now that legislation has come in, it is going to make us be up on our heels, but I think it is probably asking us a bit too much, doctoral or no. And that's my gut, a bit of a mixed answer.

Researcher: Do you think physical therapists benefit from having previous experience? I know that you have been a clinician for 19 years, but have you been in the physical therapy arena for longer?

Subject: I can't stress that having life experience or having some experience or exposure to physical therapy before your education and when you're education's completed is unbelievably important, at least it was for me. Having, and I see through the students that I have worked with since 1998 from Sacred Heart and before that from other institutions, those students that are just a little older or that have had a wide variety of jobs working with people, not necessarily working in the PT arena but close, where people had medical problems or medical issues or that nature, or just dealing with the public in many ways just seeing how difficult it is. Their education everything being equal make pretty good clinicians. The ones who have chosen a field that is a second career some times, or they have stayed the course. They have worked sometimes during physical therapy school, certainly before, certainly after, and it's given them the ability to deal with people. I am a big proponent, I say this to all my students and this all the time, you could be the smartest clinician and the best clinical skilled person in the world, but if you can't communicate with

your patient or have them trust you and get your message across, it ain't worth didly because you are not going to go that far with them in my opinion.

Researcher: Do you think that there can be a time frame assigned to this or you really can't say?

Subject: I think we can aspire in the educational forum or if we are looking to quantify information yes certainly, I don't think that there is anything wrong with giving people some semblance of a time table or a step ladder if you want to label as you do here on the page certain level of competence in the field. But to actually judge it would be a difficult thing. Now you are talking practicals, didactic information that you need to glean from the clinician, which as you know when they are working is very hard to nail them down. You would have to build that into, to do it consistently and do it well, build it into the job description. Perhaps in a hospital setting it could be something that could be tried. I like idea because it certainly gives people something to shoot for and if you're there, you must maintain your level or slip back. It could be a motivating factor, it could be a guidance factor for therapists as they progress through their career. Certainly the new grad coming out could see this and aspire and shoot for that, remind them. Actually sitting down and proving that somebody is at a certain level would take some doing. Is it possible? Perhaps it is! But, I think that you would need the right forum, a hospital with a teaching program for example may be able to pull it off, a large multi-level physical therapy practice that is corporately owned or owned and has several facilities might be able to pull it off. In a place like this we would probably be able to pull it off too, but it would take a lot of time and effort. I think it's possible, I think it's a good idea. It would take some work but how to actually implement it.

Researcher: Who would measure? Who would observe? Who would quantify?

Subject: I would imagine that you would pick somebody at the expert clinician level first and hopefully somebody with an advanced degree. Somebody who had both the education, the didactic education and also the clinical experience. And as you know there are some of us who are still around, [long laugh] I'm not putting us in that because I don't have the didactic educational degree. Not that many people would be able to do it and still run a business and/or still run their particular positions. But I would have to say that you would have to identify either on a state level or a community level certain of these expert clinicians and get together and see what you would do to ascertain the level of somebody's skill. I think that there is a lot of information out there now that you could probably disseminate that fairly quickly.

Researcher: When I say productivity, what does that mean to you?

Subject: Productivity, to me means several things being a small business owner it means, first, being able to in one hour for an evaluation, or in one hour with as we do it, two people an hour. I know I am crazy but that is what we maintain. Being able to be productive in your treatment. Getting the person in on time talking to them or re-evaluating them quickly but efficiently and then trying to implement things that you are working on, maybe introducing new things. Productivity also means from the therapy point of view and the business point of view, is the therapist carrying their caseload? Are they carrying their caseload and are they doing the other things that need to be done as a private practitioner i.e. the paperwork, the insurance reimbursement. We have to be productive on that line as a business and let's not kid ourselves, if you are in a private practice especially a small one, just treating patients is not enough! There is paperwork to be done, sometimes there's maintenance to be done, projects outside, promotion, marketing the like. Can you get your primary concern, the

patients treated effectively and can you do that on a timely basis, get them in, get them out, have a productive session with them, and also do the paperwork and the other things. That's productive in my view

Researcher: What's productivity for these levels?

Subject: Each and every?

Researcher: What do you think? Is it a concern for each and every?

Subject: I think that there are so many factors that can effect productivity at each level that it's difficult to say. Let's say the advanced beginner. They may consider treating two patients an hour a victory. They haven't been able to give them anything extra or look at anything else but they got the sessions done and the person completed all their exercises. They may feel that they are productive. We may not feel that way, because they only really gave them the basics, but all they could do. They were productive in their view; we feel they have to keep going. The proficient clinician could do that with ease. They can do that, they could treat two people effectively, make those people walk out the door feeling as though they have been cared for and been looked after with concern. My view, any thing more than two, it's impossible, but business dictates such sometimes and not only that make a call to the vendor because the ultrasound machine is broken and call back the insurance company because they need referrals and they need authorization. For the expert clinician, productivity can be very daunting. What is the primary concern in the field? Get the patient better, communicate with them, make them feel that they've had some progress. You are not going to have it all the time, strive to do the best you can for them, look for the little things. At the same time, your paperwork is completed, your insurance information is updated, you have called the outside referral source because now they have to go into a fitness program and you have to help them

- be a liaison for that, you've called the physician to tell them that you have discharged them, your goals are complete and you got to fill out your final discharge summary and submit it to the insurance company. Can that all be done in an hour? Sometimes! But to me the expert must show, not every single minute of the day, must be able to show in spurts that type of productivity, that's what it takes. As you get older it does not get any easier and as you do more and the insurance complexities become more and more of a reality to get reimbursed and get paid – but you strive for it. If you hit it three days out of the five, and try hard, the other two and you make sure that nobody slips through the cracks, I think you are being very, very productive. I'm being a little vague but I think the message is clear that as you continue depending on what your environment is, treating patients is the primary, but it not considered productive. There are a million other things to worry about and you have to be able to balance five or six hats and do it well.

Researcher: Motivation?

Subject: Motivation is something that you can try to instill. In regards to motivating patients, it can sometimes be a daunting task. There isn't a patient that comes through here, even those who come through here that you can't communicate with. When it comes to the patient that we just touched upon can sometimes be daunting depending upon what they have been through and what type of surgery – there's a million variables to that. We can always try. To me one of the most important things we can do is try to instill motivation especially for the person who is down on themselves, has lost hope, has gone through the medical system, and now they come to the physical therapist because we are the end of the line. That's often a recipe for failure if you're not willing to hang with the person, number one, and work a little extra hard, and if they can't embrace that fact that there is a chance that they will improve.

That's motivation for the patient. You have to instill confidence; you have to always remind them of the long haul and the goal, put their eyes on the prize and not the daily routine. Motivating staff can be very challenging. Very challenging, just as motivating students can be very challenging. I think that we as older so called expert clinicians have a certain expectation of staff and what they should do.

Subject 104: Expert Physical Therapist

Researcher: We have read through the general items of the description, and you signed the informed consent and I have obtained signature. Correct?

Subject: Correct.

Researcher: Can you tell me your date of birth please?

Subject: February 7th 1960

Researcher: Highest PT degree that you've earned?

Subject: Bachelors, physical therapy.

Researcher: What year was that?

Subject: 1982.

Researcher: What institution did you attend?

Subject: Quinnipiac College.

Researcher: And where is that?

Subject: In Hamden Connecticut.

Researcher: And what certifications or specialist credentials have you earned since then?

Subject: I don't have a specialty.

Researcher: Do you have certifications?

I am not certified in Lymphedema but I do have a collection of different continuing education courses that I have taken in that area.

Researcher: And what years did you go to those?

Subject: To those, in the last five years all that education has taken place.

Researcher: In general how many courses did that take, is it a series of ...?

Subject: Let's see, there were six courses that I have taken in the area of lymphedema.

Researcher: OK. How many years have you worked in the PT profession actually?

Subject: 24.

Researcher: And in the outpatient arena?

Subject: Let's see, probably specifically in OP for the last 19 years, but the first five years were a combination of in and out patient.

Researcher: Were you in the physical therapy arena before actually being a PT clinician?

Subject: No.

Researcher: Did you have any prior degrees or areas of work before coming to the profession?

Subject: No.

Researcher: OK. You've read the five levels of professional development.

Subject: Yes.

Researcher: Can you give me an example of interesting cases that you have tackled recently?

I had a patient who was referred to us after being treated for the recurrence of breast cancer and they went in and did cryo-therapy with her because the tumor was now in the umh.. plexus and they wanted to ..., they couldn't surgically remove it so they needed to go in and freeze it. And what happened was when they froze the tumor they also froze all the nerves

and they had an immediate lymphedema. So, they contacted me to treat this patient because of the lymphedema because the arm was four times as large as the other arm. Umh, I hadn't seen a patient who did not have any function in their arm in addition to having the lymphedema prior to this patient, so I wasn't quite sure exactly what I could expect because I knew that the muscle pump was going to provide some way of us decreasing that arm and this patient did not have one. However she eventually ended up regaining motion and muscle function again; unfortunately, that coincided with the re-growth of the tumor, but we were able to control her lymphedema so that umh she did have, um so control it and also get the size of her arm down to twice the size of the other arm as opposed to four times, so.

Researcher: OK. Um As we dialogue about your experience of being a physical therapist, um, I'd like you to specifically try to recall those experiences and actions that helped mold you to do your current work. Um, your colleagues describe you as an expert and it's evident by like the quality of the referral that you just talked about right now. Do you agree, disagree, then you can take a look back at the five levels and tell me are you expert and what makes you an expert?

Subject: In reading the description of the five levels, I guess I would agree that I would be considered an expert clinician. Um, I laughed when I read the description because of one the things you said that the expert has difficulty in explaining their rationale for treatment and I've experienced that at times when a junior therapist comes and says why did you do that and there's a certain amount of instinct that is there that you can't explain. And, I actually had that experience yesterday with a patient and so, yes I would agree I would be considered an expert.

Researcher: If I was to stand outside the window right here, and watch you work, say interact with a patient for the first time. What would you look like?

Subject: Um, I think you would see um a listener. I think you would see compassion. I think you would see someone who initially was very organized about gathering her information and then um, and allowing the patient to be able to tell me what they felt was important related to that situation.

Researcher: How would you strategize your first exam? What do you do in your first exam? How do you talk to the patient? You said you data collect, you provide compassion and comfort to the person.

Subject: I do a fair amount of education in my um initial examination. Because especially with lymphedema patients, they need to understand what's going to be ahead of them of, it's a commitment for them. So I them need to buy into what's going to happen in this treatment session, otherwise, it's not going to be effective. Um, and I also in my way of treating feel that um I need to also work with the patient, I'm not..., I guess I'm a minimalist and then I start off with the least amount to be effective and then build from there. I also know that as I develop my rapport with my patient, they're going to buy and they see some, um, positive result, they're going to buy into-alright I got to do a little bit more- and I'll get even more results. So I start off with the least amount and work up from there. I also feel that because of the type of therapy that I provide, and the massaging, and touching patients in various parts of their body that I need to, ah, develop a pretty good rapport so that they are comfortable with that, and they're comfortable with me. Then, and so, they, when they leave me at that first session, I want them to go home feeling educated, feeling like they need to think about what they are about to do, and feeling that we've connected on some level.

Researcher: Um, OK. So that's the expert. Were you ever an advanced beginner?

Subject: Absolutely!

Researcher: Well actually let's not go to advanced beginner. Let's say, were you ever...

What did you look like when you were proficient? Let's work backwards.

Subject: [Re-reading heading] OK. I think when I was proficient, the instincts weren't there to the same extent. I needed to think about things and think them through, and I didn't go with a gut feeling as much, um...

Researcher: So what did you go with?

Subject: I went with the data. I went with my objective information and what my patient presented like, and I kind of had them lead me there where now I can get there before they get me there and I can tell them what I think is happening without them telling me what is happening.

Researcher: OK. What about the competent person? Now taking a look at that definition, remember APTA says that people are supposed to function at the competent level meaning when you step out of the box... what's all that about? Who is the competent person?

Subject: I don't think the competent person is the person who steps out as the DPT or an MS or whatever. I think you need to have some experience treating patients on a daily basis before you can totally say you're competent. Because the amount of time that you've spent in the clinic and the situations that have posed themselves to you are not enough when you come out as a new graduate.

Researcher: So, is it frequency, is it volume is it knowledge, what is it that brings you to the competent to the proficient to the expert?

Subject: It is all of those things. It's experience. It's acuity. It's complexity. It's um, being able to see patients with the same diagnosis all through the spectrum so that when your patient walks in the door and you go through your evaluation you can say "they're here and they need to get here, or they're here and they need to get here", you know, being able to put that patient... I tell my students that they need to get snap shots, that's what they are getting while they are on clinical, of what's going on with that patient in the broad spectrum of things. And they need to see what that patient looks like in the acute care, and what they look like in rehab, and what they look like in home care, all of that before they are able to put it together and have a picture of the patient.

Researcher: When I say motivation to you, what does it mean?

Subject: Motivation. Your drive, what makes you tick, what makes you want to find out the answers to problems and go beyond.

Researcher: Who's motivated? Of the levels that you see here, we have two more to talk about, who's motivated?

Subject: I think they are all motivated.

Researcher: So is there a difference in motivation?

Subject: A difference in motivation. Hopefully not. You should be motivated at every level.

Researcher: OK.

Subject: It's just how far that motivation takes you, because if you're motivated as a novice it takes you to the first step. But you don't know to go to the second step. But if you are motivated as an expert clinician you've already done step 1 through 4, and you're looking for the next one. So it think it's just a depth.

Researcher: OK, um, who is the advanced beginner or what were you like when you were an advanced beginner?

Subject: I think the advanced beginner is the person who has done most of their clinical or completed all of their clinicals and is now coming out as um, as a therapist. That's who I feel like the advanced beginner is. They're beginning their career. They have experience. It not like they have never touched a patient. And most students now have a fair number of weeks that they've completed for clinicals so they're not a total novice but they're a beginner.

Researcher: What does the advanced beginner look like if you are standing outside the window?

Subject: They are not 100% sure of where they are in all situations. Um, I think you see a difference with the advanced beginner with a non-complex patient versus a complex patient. They are not going to be as sure of themselves when see a complex patient, so um, like you said you'll see a difference in depending upon the level of acuity or complexity with those people. But if you give them somebody who's a straight forward patient, they should be able to perform competently with those people.

Researcher: So, what 's the difference between the advanced beginner and the competent person? Picking your brain now!

Subject: What they are able to handle. The competent person should be able to handle most levels of the patients. Where the advanced beginner is going to be comfortable with the straight forward patient and be more... not as sure of themselves when they start .. patients become more complex.

Researcher: What is a complex patient?

Subject: A patient who... Most of the patients we see these days. [laugh]. A patient who has more than one or two diagnoses which is impacting what you need to do with them

Researcher: Who's the novice clinician?

Subject: The novice clinicians are the students that come out to us who have maybe have never touched a patient or who have only touch a patient on their first clinical or during the little integrated experiences that they've had during their training. Umh, those are the novice people to me.

Researcher: What do they look like? You're out the window and your looking saying oh Lord?

Subject: They are very tentative. Um, they usually have someone in the room with them who's observing, who they confirm with multiple times throughout the experience [laugh]. They're expecting assistance if they get stuck along the way and, umh, usually need somebody to cue them along the way. Umh, they have the piece of piece of paper with them that they are double checking throughout the exam, umh. That's what they look like to me.

Researcher: When I say productivity, what does that mean?

Subject: How efficient you are, and how much you can do in a certain amount of time, how much you can accomplish.

Researcher: Looking at the levels, what is productivity?

Subject: You can be productive as an advanced beginner and you can be productive as an expert clinician but again [pause] the number may be the same or may even be more as an advanced beginner but I think the depth is different.

Researcher: And when you say depth is different, what do you mean?

Subject: The amount of education, the amount that you've done with the patient, the treatment, everything has a different look to it because of the level of expertise of the clinician

Researcher: What is the different look?

Subject: How do I explain this? [Pause] The expert clinician goes in, knows exactly what they're doing, modifying things as they go along based on patient response, is educating the patient. The advanced beginner has a specific path they are going down, may not be able to modify on their feet, needs to come back, sit, look at what's going on, and then go back in the next time with a different plan where I think the expert clinician may be going along and say "ok, nope this isn't going to work. We need to change this," and move on from there, and be able to see the difference right there in the treatment.

Researcher: What about the competent and the proficient person? In that same respect, what happens to them?

Subject: The competent may be able to think on their feet depending upon their experience. They, let's see, depending upon how many patients they've seen, is this a new type of patient for them, they may be able to modify as things go along, um, small things, they should be able to modify right in the treatment plan or right in the treatment session. But if the patient is like I said of a different diagnosis, they may have not seen before, they may need to take a few steps back and... before they can make decisions.

The proficient clinician should be able to make those modifications as they go along. I don't think that it should be a challenge to them.

Researcher: Is there a time frame that you can say about these evolutions?

You mean years?

Researcher: You tell me what you mean. And when I say is there a time frame?

Subject: Time frame meaning a certain time that they need spend in each one of these?

Researcher: Mm hmm.

Subject: Well I would say the novice clinician would be that time frame from the first time you've had an experience with patients until you graduate. So that would be your novice years. Your advanced beginner years would be the time that you come out with your degree till that first year is over, providing that you are working on a daily basis. The competent clinician depends upon again where you have spent your experience. If you've spent a lot of time in one area, you could be very competent in that area versus if you spent six months in one area and then you moved to a totally different area, I wouldn't say that you weren't competent but your experience is... your level of competence is going to be a little bit different. And then the proficient clinician is going to be years wise... again. It depends upon where you are and what you've chosen to do with your career.

Researcher: Do you think that this kind of breakdown is valid?

Subject: I do. It's reasonable to me.

Researcher: Who's going to tell you what level you are or how are you going to decide where you are?

Subject: Well, I think you can look at self-assessment. I think you should also do peer review. Um, and then evaluation process on an annual basis shared between your peers, and your manager and your self-assessment, you should be able to come up with a level that most people feel you function at.

Researcher: And, then the validity of the levels, and the realistic piece about this research; am I you know shooting in the wind? What I am going to produce with this? What am I going to do for the profession with this?

Subject: I think what you provide for the profession is, um, levels to achieve and shoot for. Even if you choose to come in and work in the acute care hospital professionally, you come in as a staff therapist and if you continue treating patients you are a staff therapist, there isn't unless you choose to go on academically and get another degree or an advanced masters degree I think this also gives you levels to achieve and to attain.

Researcher: Different from a practice specialty area; different from say an OCS or an NCS?

Subject: Yes, because I don't think these levels have... they are not the same as the specialty practice area or the advanced masters or whatever. But these are... this should be a natural progression.

Researcher: OK. Good point! So this should be a natural progression. You think it is already?

Subject: Unspoken. Yes.

Researcher: OK. And you can see it in people?

Yes! I believe you can. Definitely can see the first three levels, umh, and I would say almost everyone and then the next two, I think you can also see those as well. I mean with a staff of fifty therapists that work here, I could probably put somebody into each one of those categories.

Researcher: OK. How long have you been in management now?

Subject: Let's see, 19 years.

Researcher: And how long have you mentored first of all mentored staff and then how long have you mentored students?

Subject: Staff for nineteen years, and students after I was out working a year, so, 23 years I've had interaction with students.

Researcher: Anything else you'd like to add? We have a few minutes and little juice left.

Subject: I think this is very good especially with the way the APTA is saying students need to come out at the competent level. I mean if you spend eight weeks in acute care, does that mean that you're a competent therapist in acute care? So, I think this is a good place to start. Um, and I think, you know, you need to come out as an advanced beginner, but you're a beginner if you're coming out to practice for the first time! [Laugh] I like that term, so...

Researcher: Do you think that if somebody switches say from outpatients to inpatients, what's going to happen to them? If they're say beyond competent or the proficient in their outpatient?

Subject: I think you can be at various levels at your career and that was actually one of my thoughts when I was talking to you. I may be considered an expert clinician in the area of lymphedema but if you put me in the neuro field, or the pulmonary field, I would be back at the competent clinician or maybe even the advanced beginner because lots has changed since I've treated those patients?

Researcher: So what would make you move if you were put/placed in the neuro, what would make you move up through the evolution and would there be a difference in the way how you evolve now? Having your 24 years before, 19 years in outpatient, and if you were placed in neuro would you evolve through the levels at the same pace, or is there consequence to having experience and coming in even though it may be in something else for an extended period of time?

Subject: I think my experience would definitely be beneficial to what I was doing ... starting at the lower level, but I still think that you need to have experience in that specific field to be able move from competent clinician to the proficient to the expert clinician.

Researcher: Anything else?

Subject: Let's see. I don't think so. I think you asked good questions and got through the whole spectrum of the topic.

Subject 105: Expert Physical Therapist

Researcher: We have read through the informed consent and I have obtained your signature. You have had just a cursory look at the five levels of professional development. Do you agree?

Subject: Yes.

Researcher: I'm going to ask you a few demographic questions to demonstrate your level of expertise. What is your date of birth?

Subject: February 21st, 1959.

Researcher: What is your highest PT degree earned?

Subject: MPT.

Researcher: And the year of your graduation?

Subject: 1992.

Researcher: And what was the institution that you attended?

Subject: Northern Arizona University.

Researcher: What certifications or specialist credentials have you earned, and the year?

Subject: I earned the sports clinical specialist in the '97 '98 time frame it think. I have other credentials that are not dealing with physical therapy per say.

Researcher: OK.

Subject: But, I am also an athletic trainer and a certified strength and conditioning specialist

Researcher: And what years did you achieve those credentials?

Subject: The CSCS in '93-'94. ATC in '99

Researcher: How long have you been working in the physical therapy profession?

Subject: Since 1992

Researcher: And how long have you been working in the outpatient arena?

Subject: The entire time.

Researcher: And what course work have you completed over the last few years in addition?

Subject: I have attended many, many continuing education courses both in and out of the military. And I continue to do so, so I probably go to five or six a year.

Researcher: And what's the general topic that you choose to go to? Is it always outpatient ortho, or is it shoulder? How have you used this CEU time?

Subject: It's a variety. I've done a lot of outpatient ortho type things, a lot of regional approaches. Many different experts in the field, I have attended their courses. I have tried to learn in that area, a lot of manual type skills. If I remembered 10% of what I have tried to learn, it would be something! [laugh] 5%!

Researcher:[Laugh] That's the aim! Isn't it 10 % that you are supposed remember of what you learned? It is isn't it! Something like that! That what the books say! Have you participated in any clinical education, college teaching or mentoring of junior staff?

Subject: You've done it all [nod from participant]. Not really college teaching. Well in the clinical level, yes.

Researcher: How long have you been a clinical educator?

Subject: Since 1996, almost ten years.

Researcher: That pretty good. And mentoring of staff?

Subject: I've done that my whole career. I've always been in a environment when you always have to mentor someone on the staff.

Researcher: Have you participated in any kind of research?

Subject: Yes I have. The things that I have participated in are from the problems in the clinic. We need to find out what we are doing, get a baseline where things are at. Look at it, try to analyze it, should we make changes, use of scientific evidence as much as we can type interventions and see if there is a positive result.

Researcher: I'd like to dialogue with you about your experiences as a physical therapist specifically I'd like you to try to recall the kinds of experiences that have molded how you currently work. Your colleagues have described you as an expert. Do you agree, disagree, why, why not? And you can take a look back at the definition if you would like.

Subject: I don't think that I am an expert because I am continually trying to learn and really define how I practice. And that changes every year. So am I an expert? No! One of the biggest reasons is because I do not teach people things I do outside of clinic like for instance provide continuing education courses. I'm not published. I don't do a lot of things like that. There's a lot of areas I could and should do, but I haven't done that. So by any means, I don't consider myself an expert.

Researcher: So describe to me an expert. Who is an expert and what do they look like?

Subject: An expert is an individual who basically has defined a way to practice. Has a lot of art and a lot of science behind it, a lot of expertise and teaches that to as many people as he can. [Laugh]

Researcher: How? What's your vision of the expert teaching?

Subject: In a higher education setting, and also continuing courses and such things.

Researcher: So the expert is a clinician plus an educator?

Subject: Right, and a researcher.

Researcher: If you were to stand outside the window of a clinic or the treatment room, and you were to watch an expert work: examining a patient, or treating the patient, what would they look like, how would they move around, how would they interact with the patient? Who would they be?

Subject: I think there would be a lot of listening, little interactions here and there. The information gathering period, which probably wouldn't be a whole lot with an expert. They would pick up on a lot of things very quickly, very fast. And I think that also the expert would do a test-retest type thing to validate what they're doing and ensure that what they are doing is going toward a desired outcome in an efficient manner.

Researcher: What strategies are they putting into place to be able to do that?

Subject: [Pause] I think that probably an expert has a set way of doing things, pretty much, strategies are very similar. But as they go along they can tweak things here and there, change something here, slightly change something there. I'd think they would be very skilled in watching movement, assessing movement, and again making some type of small change to reach the desired outcomes. I think they have many strategies. I think they probably have learned strategies from many different people, and they just plug it in at the right time.

Researcher: So they have all this and this in their tool belt.

Subject: And I also think the expert, if you are looking at them, you may not think they are an expert many times. Because, they don't have to move a lot, they don't have to do a lot. They just look at things, gather information, ask a few key questions and move on very quickly.

Researcher: Who are you? Looking at those five levels, remembering this is just research, this is not physical therapy characteristics per say. We are trying to develop our own characteristics. Where do you think you might be within these general definitions?

Subject: I think probably around the competent clinical. Maybe, sometimes a little higher than that, just between the competent and proficient clinician.

Researcher: Why?

Subject: Because I see parts of these that I feel like I do here and there.

Researcher: Tell me. Who are you?

Subject: I see my actions in terms of long range goals or plans, of which I am consciously aware. And I see myself in that category now. And within those long range plans there are changes along the way and I have many avenues I can go in. How I analyze a problem; that changes every day. There is an analytical method, it is always fluid, always changing. I have always been in autonomous practice, the past ten years. And so that has a lot of positive things and a lot of negative things. When I am in an autonomous practice actually being by myself, working by myself, being the only PT, I work around a lot of times, I don't have someone to throw ideas off of all the time. You know that's an issue that I have. But I have been autonomous. I got to make decisions and I do make decisions. I don't have a problem

making decisions. Many times I come back and I say, that was not the best one to make, or “I can’t believe I knew that back then,” you know that type of thing.

Researcher: So autonomous is somebody who makes decisions and works basically alone or without folks around in the immediate?

Subject: That’s correct.

Researcher: So when are you proficient?

Subject: [Pause] When I’m not thinking about what I’m doing. I just, for instance, like with the student I’m working with now. Watching him going through an evaluation, and he does a great job and I ask him “why are you doing all of those things?” “Because I am trying to get all of this information!” I tell him, “you don’t need all that much information, it doesn’t matter.” But, and so that’s what I do a lot of the time. I just react sometimes.

Researcher: When do you react? Is it a certain type of patient? When is it that you react or when is it that you go back to the competent decision-making thing?

Subject: I can’t tell you when it happens, it just does. I just react and feel confident about what I’m doing. Actually I’ll tell you what it is. When I’m working by myself I just react, I do things. When I’m working around other people, then I think “wow”, I can’t really react. I really need to have a reason why I’m doing this, I really need to step back and validate why I’m doing this and ask myself those questions. When I’m by myself, I just do it, I don’t even think about it. When people are watching me, and someone’s trying to figure out what I am doing, that’s when I think I go back to the competent clinician more than the reactionary type.

Researcher: So when you’re teaching?

Subject: Right! Right! Because when you teach you have to have a reason for what you're doing. You need to validate what you're doing. You need to demonstrate the worth of what you're doing and you have to have some back science behind it. If you don't it doesn't, make sense to people like you who send students to me.

Researcher: So from what you said before, you thought the expert was an educator. But now you are telling me where you are as you described yourself a little bit, you just said that you teach?

Subject: I don't think that that's necessarily everyone in general. I think that's me more specifically. And a lot of it is because I don't work around people many times. I don't validate, I don't think about it, I just do it. When I'm working around people, then I need to step back and really take a look at what I am doing. And so that's a good thing really. Many times that's a very good thing. It's good not to stay one format your whole career. You move back and forth, you question. You sometimes be extremely confident and the next day you question it. And I think that's a good thing to do. But again I think many of your experts will be educators, will be educating at the same time when they are doing research and doing more and more of that type of thing. I guess you could call me an expert in a small area, maybe. I mean in a little focused area, but in a broader and general sense no, definitely not.

Researcher: Can you tell me about some difficult cases that you tackled recently? Those difficult cases that just come by you; and how you intervened, what did you do?

Subject: Ok, well I have a thing about this. I don't think that I have had difficult cases in the recent bit here. I guess the difficult cases for me are the ones that I am not successful with. And that seems difficult. And why am I not successful? Well, many times one way we could always come back and say "well the patient isn't compliant" or "the patient isn't following

what I'm telling them to do," or "the patient does not want to get better, there is an ulterior motive." And regardless of what the issue is, whether I perceive that, whether that's the truth or not, I still have got to be able to change, I've got to be able to adapt and be successful. For instance, the most difficult cases for me are the people with whom I perceive have some secondary gain they are going after. They do not want to get better. And even though we can functionally show them or prove to them that they are at a much better than what they were, they won't admit it. And basically in this environment I perceive that they are wanting secondary gain. So that's very frustrating to me and those are my difficult patients. So the real question is "is my perception reality or am I just not successful with some people." Actually it doesn't matter what the situation is. I need to adapt and find a way to be successful with everyone.

Researcher: Do you think that your adaptability is common place in PT?

You mean the general PT population?

Researcher: Well first of all let's talk about your environment [military], first. And then let's expand a little bit and think about a little of the general PT population.

Subject: I think in my environment, yes, you've got to be adaptable. Things change all the time. In my environment you have control over a lot of issues, a lot of broad issues many times. And the next day that could be taken away from you where you don't have that. So yes you have to be very adaptable.

Researcher: Do you think other PT's in your environment are adaptable?

Subject: I think they would have to be. Because again you know the thing is this, I just don't see PT's anymore. I don't deal with them. I don't work with them that much on a regular basis so yes, you would have to be adaptable. You would always have to be adaptable in your

setting, in the settings outside of this one. Oh yes, things are changing all the time. You have to adapt and if you don't you're...

Researcher: Your done!

Subject: Your done! Right! Absolutely! I think that's the key there, adaptability. Change to the appropriate situation at the right time.

Researcher: Remember that word adaptability. Can you describe to me a clinician who is proficient? You talked about how they think. You're standing outside the window and you say "Ok! That's a proficient person." Have you met anybody in your life whom is proficient, who you could describe and say ok that's who they are.

Subject: Actually I have. When I first graduated from PT school, I worked in an area where there were four other PT's. I would ask the person who I considered to be proficient certain questions. This individual would come in, just say several things really fast, show me some things. I get a desired outcome, and, excuse my language, "I'd say what the crap just happened?" I have not a clue what happened, I have not clue what he did, I have no idea.

And he'd try to explain it to me and it would be over my head. That was a waste of.., well it wasn't a waste of time. It challenged me, but basically I was lost, totally lost. Then I asked questions. He'd throw a lot of answers and a lot of different things. And his level was so much higher than mine and I couldn't even follow what he was doing, his thought process.

Researcher: What did he look like to work with a patient?

Subject: He didn't do a whole lot! He didn't seem to do a whole lot of movement. He would ask a few things, make a few assessments. Start hands on type things manual oriented type person. Very confident in himself, that type of thing.

Researcher: Did he help you?

Subject: It was difficult for him to help me. It was difficult because he had a hard time coming to my level. Well, actually he just didn't relate to my level of expertise. It was difficult for him to come down there and explain it. For instance I will give you an example, when I'd ask him questions at times he'd say "ok look in such and such book, its on a certain page, its over on the right hand side maybe on the third or forth paragraph down" some thing like that. I'd go there and there it was.

Researcher: Wow!

Subject: That was incredible to me. And you know what I don't think a lot of patients related to him except for... He would just do things for them and to them, basically passive and they seemed to pretty much like what he did, except they didn't relate to him because he did not come to their level. But was he proficient as a clinician and his skill level? Yes. Was he proficient working with the patients? No, I don't think so.

Researcher: What about this competent person? You told me a little bit about yourself. So tell me more about who is this competent person?

Subject: I think a competent clinician is a person who is always trying to learn. Adaptable and a person who doesn't think they know everything. Always has in their mind that they need to learn a lot more. They could be a whole lot better and they need to get there. Always looking for new ways to do things, new thought processes. That type of thing.

Researcher: What do they look like working with a patient? You said that the expert and the proficient person really don't do a whole lot. Is that the same thing for the competent person?

Subject: Boy, I really put myself in the hole with that one! [Laugh]

I think the competent person is a person who is competent in their abilities, the abilities that they know and the abilities that they have. But they don't know everything and they are

afraid to tell a patient “I don’t really know, but I am going to go out and try and find out some more information and we are going to come back and work on this project.” I think that’s a competent person who is not an expert in any area but does everything they can in their power to reach the desired goal.

Researcher: Adaptable?

Subject: Very adaptable! You have to be adaptable, yes. Changing all the time, asking questions, wanting to get more knowledge, attending courses.

Researcher: Just like you?

Subject: Yes.

Researcher: So what about the person is the advanced beginner? Who is a novice and who is an advanced beginner? What’s the difference?

Subject: [Pause] Many times I think the novice is the student that you send to me many times. I think they have a general understanding of a lot of the concepts, very good knowledge base. Just don’t have much experience. An advanced beginner is a person who is getting experience under their belt, starting to develop some ideas, some strategies and tactics, they think work pretty well. An advanced beginner many times I think are in that level where they don’t realize they still don’t know very much but they are getting some confidence

Researcher: They think they know but you can see they really don’t?

Subject: You can see they need some more experience and more time.

Researcher: So you are standing out the window. What do you see in this advanced beginner?

Subject: An advanced beginner would be an individual who took one thought process that they have studied quite a bit, and learned how to be successful in certain aspects of that, and

pretty well stick to that for a while because they don't have experience or things that tell them otherwise. So they do what they've got to do and move forward, if I am reading this right. [Reference to definitions document]

Researcher: Yes, oh yes you are fine. So where were you when you when you were an advanced beginner?

Subject: Last year! [Laugh]

Researcher: No, no! Where were you?

Subject: This is me when I was an advanced beginner. I continued with some continuing education courses. I'd go there. I'd come back. I'd be pumped up. "I know what I'm doing now. This is all I need to know. These people are experts. They taught me all I need to know. Man, I'm going to kick butt in this one area." I took all the McKenzie courses A through D. That's it. You don't need anything else. I'd come back and start working on everybody. "This is going to take care of your problems." And then I find out maybe it's not doing that.

Researcher: What was your patient interaction like? You had your technique down, McKenzie was it! So, what was your patient interaction like?

Subject: I'd tell them what they needed to do to get better. "This is what you need to do. This is it. It's your responsibility. I taught you how to fish, now go take care of yourself all of your life." Which basically came right from the McKenzie program. They used that exact phrase.

Researcher: So what happened when that didn't work out? What did you do? How did you correct?

Subject: First, it couldn't be me. Because this is a perfect process so it's got to be the patient. You are not compliant, you're doing this right. What's going on here? Why aren't you doing this? It was a you, you, you type of thing. Then after a while I stepped back and said "it's

me!” But it took awhile. You come out of there and you are pumped up, you are motivated. You don’t need to worry about that. And I loved it because when I see some of these people come, and they demonstrate the same things. For instance, one of the students I had, not from your program, from another near Philadelphia, he did a rotation with a McKenzie based therapist that was an important thing. He had the same attitude I did. He could defend anything. I’d say what about this and what about that? He’d say “it does not matter!” Are you sure it doesn’t matter? “No it does not matter.” Really! Ok well see how it goes. And after a while they all come back with the idea too maybe that’s not the only thing. But they were indoctrinated by a certain clinician that that’s all they needed to know and if they learned how to do that well, then they could be... Let’s see I did the same thing when I did an internship when I was in school with a Maitland trained dogmatic therapist. The Maitland approach is the answer to everything. He convinced me that you don’t need to learn all these other different concepts. You need to just to get really good at this one, this is all you need. All these other people are wrong, I’m right.

Researcher: So these indoctrinating clinicians, where were they?

Subject: I think they would have to be advanced beginner also.

Researcher: So time...

Subject: I think overall they might be an advanced beginner but with their skills and certain techniques, they could apply them pretty well. So I think they got into the competent level when they had the appropriate patient that that [technique] was appropriate with. When you had a patient that was not appropriate for it and was not everything they needed, they kind of went back to the advanced beginner. That is my opinion.

Researcher: Within these levels are you saying that application of skill ability is an issue?

Subject: How? Is it that the novice does not have good application of skill?

Probably! Well a skill is everything. It's a knowledge base, it's expertise, it's many things.

Researcher: Flexibility or adaptability; what does it have to do with those five levels? How does one evolve from the novice to the expert when looking at that adaptability? What happens?

Subject: [Pause] Well I think to be successful you are going to have to be adaptable.

However, many people that I just described as the expert clinician, I don't know if they have that. I know that they have a lot of information to support their thought process. They are very competent in what they do. I think they probably bring in many thought processes and try to mold it together.

Researcher: So does adaptability change definition as you go higher up the scale?

Subject: You know, it really shouldn't. Adaptability should never. Everyone should be adaptable. I think if you listen to successful people, they have the attitude to adapt. It's like when I go back and talk to some of the people I used to work with in certain areas. I lecture them on certain things, the new people coming in. I kind of wish I would have known five years ago what I know now, when I was putting this program in place back over there and it's still running over there. They won't change it, and I say that I really wish I knew then what I know now. And I wish I really know now what I will learn in a year or two. So I think that's important. You have to be adaptable, you have to be. I'm just really all over the road on this!

Researcher: No, this is what the issue is! What are the characteristics of this physical therapist? Or physical therapy – who are we? 'Cause nobody's told us.

Subject: And the thing is we change all the time. Obviously, our profession has changed so much. So, yes, we have to adapt. Adaptability has to be the key. And look at the people whom you and I had a discussion about just a little bit ago to me they don't appear to be adaptable. They are staying in one mode, one thought process. And you always have to step back and say "what am I doing?" What are we doing? What the heck are we doing as a profession?

Researcher: When I say productivity, what does that mean?

That is such a big term. I can push numbers through. I can treat many, many patients but are you productive when you are just pushing numbers through? Quality of work, that's important with productivity.

Researcher: So tell me what productivity is for... let's say for the novice? What is it? You just said it's not only numbers, it's quality.

Subject: I think that that's a variable too. The novice will measure it... some people measure it in numbers. Some people measure it in quality. I think all that has to slowly come together. Over a period of time every physical therapist, every person has to find their niche where they can match numbers and quality and put it all together. And do it appropriately to the best of their ability.

Researcher: So numbers and quality; let's go forward to the advanced beginner. Does it make sense yet? Or when do you think numbers and quality? Well when saying productivity you're say numbers and quality. When does numbers and quality balance?

Subject: I think it starts to balance at the competent clinician.

Researcher: So what is it before? What is the imbalance?

Subject: I think the imbalance before then can be in either way. Number or quality! I've seen people do it and go both ways. I've seen people squished about numbers and I've seen people who are strictly about quality care and number doesn't matter. That's productivity. But, people who are involved with insurances, I think the bottom line is the dollar, that's what productivity means, and makes sense to most people. How much can you bring in? That's the thing that I am really afraid about in our profession in many aspects. Because, I work in an environment where I don't have to worry about that! And it's very nice to be in that environment. And I think about when I get out of this environment, what am I going back to? And I don't want to go back to that. I don't want to do that! I'll have to do it for fun at that point.

Researcher: Numbers and quality, you said it balances out in the competent level. So what happens after the competent level? Thinking about productivity and you said it was numbers and quality. You said it's a balance. The competent person can balance it. They have figured it out, "Ok! I need to keep myself afloat, but I need to make sure that these people are ok". So what happens at the proficient and the expert level?

Subject: I think at a proficient and expert level, you have to keep that balance. But, maybe you need to focus more and more on quality.

Researcher: Why?

Subject: Because as you become more expert you should gain more knowledge, better skills, just be able to manipulate the situation. Make your desired outcome better!

The higher you go on this level you should be able to do that better. From a competent clinician to an expert clinician, I don't know if the numbers really need to change or should

change. I think it probably should stay fairly level, within a range. But the expertise in all the other levels should improve.

Researcher: Can or should you assign a time frame to the expectations of these?

Subject: No. [Pause] In my situation I've just been hanging out in these different areas until I'm ready to move on. I view myself as a person who needs to experience many different things before he can move on. If you don't have those different experiences then I am not ready to move on. Many people I think have the intuition, have the skills the ability, the interpersonal skills to move on faster than what I did. And I see some how basically are not adaptable and they even take longer.

Researcher: If we were to apply these to a person, a clinician, would it be a valid thing to do?

To even to think of having a level, how would you even measure this? How would you say somebody is and say...

Subject: I don't think you can. Let's put it this way. I have sports clinical specialty. What is that called board certified sports clinical specialist? When I got that, I passed the test. Am I a clinical specialist in sports? Absolutely not! Not even close to it. I passed the test though! And you know what, I passed the test because by passing that test I get a lot more money. That was motivation. Well, I wanted to do it, number one and number two, and everyone one wants more money. I mean, that was another motivating factor. When I stepped back and looked at myself and said "sports physical therapist, absolutely not"! So no I don't think you can say when a person gets to this level and I don't think any credential necessarily can do that either.

Researcher: So how would you measure them?

Subject: I don't think it's a measurable term.

Researcher: Do you think it's worth me asking these questions?

Subject: Oh absolutely! I think it... like you asking these questions of me, it helps me reflect more on myself. Look at all the alphabet that I put behind my name and I am kind of proud of that. What does it mean? It really does not mean a whole lot on there. It means that I have been through some programs that could enable me to be at a certain level, but am I there?

Not necessarily. Because the only way we can measure this is if you can measure adaptability, can you measure productivity appropriately, can you measure all those intangible? No you can't measure them.

Researcher: So what's important to someone's evolution to the profession – do you think that it's intangible qualities?

Subject: You know I think it is a combination. I think intangible qualities are very important, but at the same time you have to have some measurable things too. And just because you have some measurable aspects to your profession does not by any means an indication of the intangible qualities.

Researcher: Give me an example of measurable?

Subject: For instance, the degree, the credentials behind your name. Those are all measurable and those are all important. I mean you definitely cannot detract from that or belittle that. But that's not all of it either. A doctorate in physical therapy, a board certified specialist, years of experience, I am a manual therapy certified therapist. Whatever! All of that is very important, it is extremely important, but again intangible you still can't measure. Would a person with all those credentials behind their name be likely to have some expertise? Yes, absolutely, but again!

Researcher: So what are we doing? I am looking at this [definitions document], what are we doing? 'Cause we have to go, I'll just say it, they have to go somewhere, cause there's people who are flapping out in the wind who are just killing us, and there are those moving along, there's people who are evolving and they know they are evolving. It's ok getting there, there's people who are not at the point where they can start to reflect and say "whoa, wish I knew then what do I know now," then you have your expert people. So what we do, as a profession, how do we say "I have a student and you are going to see R.S. up the hill." Why?

Subject: Because you are looking at intangibles that you can't measure, and you as an educator have that ability, and you're skilled in that. And you do a good job with that. But, still can we measure it. No I can't! We can't measure what you're doing and we can't measure what the student's doing. But, we can still get some results. I think we've tried to do that in the profession, let's measure outcomes. What are our outcomes? And the people who truly get the outcomes get them! The people who truly do not get the outcomes lie, cheat, steal whatever it takes to say they get the outcomes even though they don't get them. And I think the problem is insurance dictating what we do, and the bottom line the dollar. It kind of corrupts, yes, corrupts all of us.

Researcher: So if we could take out the insurance and then the almighty dollar as my Mum used to say. What's left? This is a tough interview?

Subject: Then what's left is credibility, by word of mouth credibility. And that's probably pretty good.

Researcher: Is it just word of mouth credibility?

Subject: No. I mean it can go many different ways. It can be ... I think there are many aspects to it and that's hard to measure too. People say they are good at this or good at that.

And they might be. No, there are so many different avenues you can go. Is the novice credible? In some aspects, yes!

Researcher: Is the advanced beginner credible?

Subject: In some aspects, yes!

Researcher: More than the novice?

Subject: [Pause] I think you can get situations when we can say yes and situations when we can say no.

Researcher: Is the competent person credible? [Pause] I'm just using your words and I'm flinging them back at you!

Subject: That's good! That's good! I could say yes in some instances, and in some instances say no. The thing is if we could take out what drives us, and we just want true outcomes, true skills, true all that. And if we could do that then I say yes. But, if we don't take those things out that drives us like dollar and insurance as being the major driving factor, then no.

Researcher: What do you think drives clinicians to evolve? What drove you to evolve? You knew you would.

Subject: When I was a novice, man, I'll tell you what! When I was a novice, I went from very poor wages to pretty good wage, like that overnight, because I got a piece of paper. Was that a driving factor, motivating factor? Oh absolutely! That motivated me for many, many things. So what did I do? Well, the more I worked - the more money I would get; so let's work more hours. I worked myself to death for a while, I purchased a home, paid it off, you know things like that motivated me. At that point was I worried about high quality care, no, I wanted some money. And then after a while I going, step back and say "what am I doing, what am I doing? This is ridiculous!" And then I looked back and said "you know what, if

people act like me then our profession's going to go down. I need to start putting back into the profession what it's given me, and I need to start trying to improve my skills and do a whole lot more than what I'm doing!" Because I looked at it after a while and said this was highway robbery.

Researcher: So what was the driving force next? You reflected! What drove you to reflect and what was your new driving force?

Subject: First it was the temptation of money and after a while I said, ok, it can't be about that or else we're going down. And after that I brought my values into play. My values are more important and everything else ... Much more important than anything else, as this profession has to offer. I have to go in and what people are paying me, I have to be worth what I'm getting. I have got to improve in every aspect! Numbers and dollars; and after that, numbers and dollars don't matter that much. Yes, they are still important but not near as being important as being a credible, who someone can truly trust. Why am I doing this, I am really trying to help you as a consumer? Do I have your best interest in mind? That type of thing.

Researcher: Can you tell me what stage you may have been in when you had that paradigm shift?

Subject: I think I was probably in an advanced beginner.

Researcher: Ok so something dawned! Are you still there? Quality, credibility, yes, money gets you there! You've got to take care of the people, the [family] little people!

Subject: Right!

Researcher: So has that changed, has that evolved, is there a different balance?

Subject: I think generally speaking I have changed and I've evolved. The consumer's best interest is my interest the majority of the time now. Is it always? Definitely not!

Researcher: Where were you level wise when the consumer interest now became a concern the majority of the time?

Subject: I think I was in between advanced beginner and getting into the competent clinician.

Researcher: So you don't see yourself as proficient most of the time?

Subject: I'd say not most of the time, maybe 60/40. Competent clinician, maybe proficient clinician maybe 30 to 40.

Researcher: Ok!

Subject: Because I'm still learning, you know what I have so much to learn! For instance, my nephew, I love my sister, she entrusted me with her only son who had this problem. I made great progress with him. I said look now we are kicking butt here and we are having a good time. Then things went sour, things went nasty. Things went extremely bad. And the physician involvement has gone sour, has gone nasty, extremely bad. He has a problem that no one has taken care of! And all of these Mayo clinicians, everyone all over Philadelphia, California, Arizona, all over the place have not taken care of the problem. So I say, you know what, what the heck do we know? We still really don't know a whole lot.

Researcher: So you figured the lining...

Subject: We still have to learn so much information and we still don't ... it's not out there!

Researcher: The more you know, the more you don't know?

Subject: Yep! Absolutely! The more you know, the more you realize I still don't know anything. I agree with that.

Researcher: Anything to add? So I'm not nutty asking these questions?

Subject: No, no! I think it's very good what you're asking. Every person should have these questions asked of them and they should reflect on them, realistically. [laugh] Absolutely! And we need to truthfully step back and ask "where am I"?

Researcher: Could I measure this way if I introduced this as a tool? Had to have people on an annual basis answer my questions; Sal Brooks' tool. A professional survey for all practicing clinicians!

Subject: Absolutely! I think it would be good if we could humble ourselves and sit down and deeply reflect this and go that route.

Researcher: So what about the person who would not answer honestly? What do I do with them? Or do you think people would answer honestly if they are in the profession? Or is it just character?

Subject: It's character! And different people are going to answer differently. Some people have so much confidence in themselves and they think they're on top of everything. You can hit them over the head with a two by four and it wouldn't change anything. And some people you don't have to say anything to them. They're just automatically "how can I do this better. What am I not doing here that I can do?" I think that's the key. And the thing that is aggravating, is that person that you could hit over the head with the two by four and it would never change them, some of those people are so good they perform extremely well. But, some do, but a lot of them don't either. I think it's an individual thing. I think that makes it even more difficult to measure. I'd love to hear your side of this! [Laugh]

Researcher: I am asking the question. My research question is around – what are the characteristics of the new DPT? That was my first question. Who are these people? This little upstart sort of coming out. So somebody said to me, so who are the PT's? Who and how are

physical therapists, before you ask the question about DPT's. And I was like "I don't know?" And then the research that was done by Shephard and Hack talked about the scheme of the various models, the physical therapy clinical reasoning, skilled movement virtue process, but it was all over, all clinicians, and then they broke the chapters up. I said to myself wait one second, this seems to be a whole tone of work. Fume! How does this physical therapist develop this model? How do they develop this strategy of thinking? They said the strategy of thinking is that the expert person is more systematic in the way how they do things, and they are non thinking. But, I said how? What vocabulary words are there out there that can describe them? Who are they? How long did it take them to get there? They [researchers] did novice and expert, so I said what about the people in the middle? So you just went from here to here? Isn't it important for the stuff in the middle? And if you are going to do this research what are you going to use it for?

Subject: It's one thing to make a comparison, but that's nice! So you're not a novice so I'm an expert? And then physical therapy says that the physical therapist is supposed to practice at the autonomous level. How the heck are you going to know that somebody's is going to practice at the autonomous level when they come out of school? Is the expectation that when they come out of school that they are going to practice at the autonomous level, that is direct access? They are supposed to function! You get out of school "here you go! Direct access, go for it babe!" And it is synonymous with competence. But yet theory shows that in every single profession before you become competent, there is a novice and there's advanced beginner stage. So what are we doing? So I am trying to figure out what the mish mosh is. If I'm going to get answers, I don't know. I'm beginning to wonder. If that we can isolate or identify, I might say we do have professional levels. These are some of the characteristics

that have come up between the forty experts that I have talked to and the new people in the profession. There is some agreement and disagreement. The next question is how do I measure? You very clearly talked about tangible and intangibles. What the value of the tangibles? And what is the value of the tangibles that are out there? You hit it on the head! And the intangibles, how do we talk about the intangibles? Are they important? How many times am I going to hear experts and experienced people talk about intangibles and say how that's important, do nothing about it?

Researcher: Anything else?

Subject: I don't have anything! [Laugh]

Researcher: OK, we're cooked!

Subject 106: Expert Physical Therapist

Researcher: You have read through the consent form?

Subject: Yes.

Researcher: And I have obtained your signature of consent?

Subject: Correct.

Researcher: What is the highest degree in PT that you have earned?

Subject: Bachelor of Science

Researcher: And the year of graduation?

Subject: 1982. I had to think about it!

Researcher: The institution that you attended?

Subject: Northeastern University.

Researcher: Have you any specialist credentials?

Subject: No. I am a clinical specialist at work but nothing else. No outside board or agency.

Researcher: How long have you been working in the PT profession?

Subject: Since 1982.

Researcher: How much time have you been working in the physical therapy arena? Like were you a tech or anything like that?

Subject: I would have been a co-op student from Northeastern, that would have made you a tech. So I have been working in PT since the late 1970s.

Researcher: Have you participated in any clinical education, college teaching or mentoring of junior staff?

Subject: Yes. We always mentor junior staff. That is a regular ongoing professional aspect in our job. We have had clinical students all the way along. Give in-services and all of those kinds of things.

Researcher: Since 1982?

Subject: Yes.

Researcher: Have you participated in any kind of research?

Subject: No.

Researcher: What I am going to do is going to ask you about your experiences as a physical therapist specifically the experiences that have molded you. Taking a look at the five levels of professional development as a framework – a start for us. Can you give me an example of an interesting case that you have tackled recently?

Subject: Fractured neck. I had a fractured neck patient who has proprioceptive loss and balance loss due to the disruption of the C2 vertebrae. High functioning patient but truly he is rather more range and strengthening. He lost some strength in the upper extremities, a lot of

his balance and a lot of his day-to-day activities are affected by the upper areas. He has lost the sense of head in space and we are working with all of that. I think that a lot of some of my cases are kind of boring, but he is interesting.

Researcher: Tell me a little bit more about the case. What makes it interesting for you?

Subject: He is interesting in that on the surface a lot of people would look at the fact that he has lost the use of his right upper extremity because he is a spinal cord injury. What is truly interesting is that he really lost a lot of his proprioception of his head in space that has affected his entire ability to stand up straight, function through his life and do all the things that he needs to get done for the day. My job has really been to work on his upper neck area. I had a junior staff person working on him earlier. She focused on the strength loss in the UE and got that all back which is great but it is more this higher level tweaking that had to be done. So I find that very interesting because it is more the fine tuning rather than the very gross motor that needed to be done. That is what I find interesting.

Researcher: Your friends describe you as an expert. Do you agree?

Are you ever really an expert? I guess given what we have in this criterion right here, I guess I am an expert. I have been at this a long, long time; I take a million courses; I see tons of patients; I try to read and take in as much as I can. So in the realm of what I do, yes, I guess I am. Hard to put yourself in that category though! But, I guess yes.

Researcher: When you first interact with a patient, what do you do?

Subject: I always introduce myself, I try to make them feel comfortable. I briefly go over their medical history. I really want to know why they are here to see me, I really want to know the big thing that is going on in their life, what brings them to see me, what are the things that I can help them with, and if I do help them, what difference is that going to make

in their life, how is that going to improve their function? I try to make them really comfortable so that they will share more of their details with me. Sometimes things are not always as they seem. Sometimes people have a perception of what they are there for, and they really don't comprehend what their real problem is so you have to make them comfortable so they will give you the whole aspect. I look my whole patient from top to bottom. I never just focus. If someone comes in for a shoulder problem or what ever problem I focus on everything head to toe, everything is connected treating the whole being and the whole person. I look at the doctor's prescription and I do all my testing, I do all my range and all of the regular evaluation procedures.

Researcher: If I was to stand outside the window and watch you work, what would you look like?

Subject: Very gabby! [Laugh] I talk the whole time! I really try to make a good connection with people. I really talk to them. I really want to know little bits and pieces about their day and about their life. I want to know how their problem is affecting them and those kinds of things. I look at their whole physical being to see where I can make a change or a difference. So I do a lot of talking. I also do a lot of hands on. I'm hands on therapist. I have my hands on people all the time. I really like to touch my patients and feel what's going on – all of that.

Researcher: How do you decide on the course of action for your patient?

Subject: I think that is kind of complicated. One, I take into consideration what the doctor may have ordered and what their diagnosis is and what I know about that diagnosis. I take into consideration the person and their pasted medical history. Do they have something else going on such as connective tissue disorder that might affect my treatment. I try and put in

what I think will be the most effective based on what I know, what I have seen in the past and what I know will work. This is what I do.

Researcher: How do you know that the patient has benefited from your intervention?

Subject: How do I know? I like to know that at the end of the very first time that I have seen that person that they go home and they are more comfortable. I've addressed their pain, I've addressed their concerns, I have given them some control over what is going to happen to them, empowered them as to what physical therapy is about and how to participate, all those things. That's the first. We certainly regularly look at all the parameters; is their function better, is their pain better, is their strength better? All of those things that we would regularly look at that two weeks out, four weeks out, six weeks out, where ever we thought that treatment plan should be.

Researcher: How do you interact with other disciplines and other PT's? Think about the patient you just talked about.

Subject: I do talk to all... if I have an assist that I am going to have with them, I usually give them a really good heads up about what I want them to work with. I ask a lot of opinions. I go in at the end of the day. We all have lunch and I say' "ok I have this person," and I say what I think I need to do and what I am thinking of doing. "If any body thinks that is a good idea, does anybody else have any other ideas?" I do all of that. If I think that they need other services, I coordinate that with the occupational therapist or other social people who might be around. I go and give them my blurb and see what I want to do there. It's funny but when we were new grads, I don't know if this is going to come up later, I remember being a new grad and asking how come there were no old PT's? There were no PT's in our age bracket that I am now. There were none. Everyone was either a new grad or a few years out and then they

went off and did something else. They went into teaching or administration, but they did not practice. Now here we are still practicing.

Researcher: So what do you think that difference is?

Subject: Why is that? I really don't know. I like being with patients. I think the profession, I think medicine has changed. PT has expanded and changed and PT has way many opportunities to switch around. A lot more facilities that you can work in and a lot more areas that you can work in. When I got out you either worked in an acute care hospital or rehab. That's what you did! Now there is a million other things that you can do, and it keeps people a little bit more involved.

Researcher: I am going to ask you about the novice. What were you like when you were a novice?

Subject: I thought I knew everything! I didn't know anything! Thought I knew it all. I think a lot of new therapists think that now. You just come fresh out of school, you know everything that was in that book, you do what you are supposed to do, and you expect it to go exactly like that book says. Patient A comes in and you do this, this and this! That does not work so well.

Researcher: Were you ever a novice?

Subject: Sure! Being a new grad - I bet when I was novice I didn't think that thought.

Researcher: So the novice is the new grad?

Subject: I think a novice is new grad or it can also be new to the area that you just switched. So if you have somebody who has was inpatient who only did neuro or heavy duty inpatient floors, and we switched them to the orthopedic outpatient service, they would be novice. Even though they would know how to do patients, they would not have the resource to go

back to, the broad based experience that they need to move their patients forward and get their patients going.

Researcher: Hold that thought. What did you look like as a novice? If I were to stand outside of the window and watched you work, what did you look like?

Subject: I think I concentrated exactly on what the doctor told me to concentrate on. That patient is here for a shoulder, I looked at that shoulder. I did every special test and all of that and I focused only on that problem. I did not look at how everything works together, I did not look at what their past medical issues might have been, I would have stayed right focused on why they were in therapy right then. I would be very concerned with the numbers, how the range of motion looked and all of that, all the concrete findings. I am not so much that way anymore. Now I am much more about their function and their pain and how they feel overall that they are doing. As a novice I would have been very to the book.

Researcher: How did you interact with the patients as a novice?

Subject: Not as well as I do now! I think you really were not quite sure how to interact with your patients. You were not sure what they were telling you, and you tried to keep it cut and dried as to their shoulder pain, or this pain or that pain and you were not so interested in how their grandchildren were doing, how's life and how's everything going. You did not make that connection to make people feel that you were truly interested and making them better and making want them to come back to see you. I think it takes time to learn how to make those connections. I don't think I knew how to do that then.

Researcher: As a novice, how did you interact with other PT and other clinicians?

Subject: I thought I knew it all so I would be offended if somebody told me what to do.

“Oh no I know what to do, I know what to do, I know exactly what I am doing!” And because you feel that way, if you got somebody that you really didn’t know how to do you were embarrassed and you thought, “I must know how to do that; I must know how to do that” so you were intimidated to ask those questions and get more knowledge to go forward. You should have known that and you go look it up in your book and figure it out. Now I ask everybody.

Researcher: How about the advanced beginner?

Subject: How about that!

Researcher: Were you ever an advanced beginner?

Subject: Sure, I think you move right along through those stages. So if I look back at this ... yes advanced beginner is when you have a few months underneath you. I must have been an advanced beginner, I know I was in those early days. You have gotten enough under your belt to freely ask more questions, you are feeling a bit more comfortable with what you are doing. You have a little bit more of the real life to go back to and look at.

Researcher: Can you remember where you were or what you were doing?

Subject: Well, I was... I used to work in acute care and in those days you used to rotate to different services so you would just get yourself comfortable say in the outpatient setting and you would rotate to the chest physical therapy setting and you would rotate to the cardiac setting. You would have enough that you have seen the hospital and you would know how it works and you know how patients are and what kind of lines were in people what kind of IV’s going. You have all of that to go forward with, but have you really seen exactly what each of those patients was going through.

Researcher: If I were to stand outside the window and watch you interact with the patient, what would you look like?

Subject: I would be more comfortable than I was as a novice, able to talk to my patients a little better, but still would have been by the book, what it said in the chart, what the doctor had documented. Back then, the doctor said it, you did, you did not think on your own. You were also at the beck and call for nursing staff too. There is always a head nurse on the floor who dictated what you did and when you saw those patients and how it worked. So that would have been absolutely... We also had a lot more time with our patients back then. Would have been a lot more time then. I would not have had the schedule that I have now. I would have had the time with those people to find out what was going on. Now you have to think quick. Back then you had time to track down the docs and interact and talk and get all that done!

Researcher: What about the competent person?

Subject: I can tell you, I thought I was extremely competent coming out of college. I had done my affiliation, I had done my clinicals, I had done extremely well, I had my first job. I thought I knew exactly what I should be doing and how I should be doing it and I was as competent as everyone else. But I wasn't! And I know that now when I look back. Every time you take a new course you learn something new, you say I wish I knew that and you think of a patient – now I know what was going on with that patient but I did not know enough to know what that was.

Researcher: What was that realization what happened?

Subject: Realization happens as you move along. I think at the time that you are in that, you think you are very competent and know what you are doing. But as you go along you realize not so much.

Researcher: How did you know that you were competent?

Subject: My patients got better. The docs were pleased with the work that I did, the patients were happy with the work that I did. They gained back the functional levels that we hoped that they would gain back in or out patient justifying my position and I did a good job. But not as good as I could have been or should have been; more attention could have been paid to other areas and I know that better now. I think I know that better as I look back, hind site is 20/20.

Researcher: What about the competent person?

Subject: I remember being a competent clinician, I had moved forward. Coming out of acute care, I worked for home care a little bit and a private practice that was starting up. I could work on my own, I could take those diagnoses. I could schedule my day, I knew what I was doing and I could move right through. I could get it down without a whole of input, not a whole lot of direction, very competent back then.

Researcher: Now how about the proficient person?

Subject: I think when you become proficient is when you can take your patient, you can see their diagnosis and in your mind's eye you already know what you want to look, how far you want to go with them, what the usual progression will be and you can direct your patient in those ways. You don't let them ramble on, you focus them in, you get down and dirty of what they need to get done, make them still feel very connected and in tune with the physical therapy process, but get your work done in a proficient amount of time

So that you are not taking one patient and having to go an hour and a half to get that one thing accomplished. Proficient therapists can really move their patient through their process in a reasonable amount of time keeping what their whole day will look like, what their schedule will look like, how all of their patient will fit into the day. I think it takes a long time to become proficient and I don't think that that is something that comes along quickly.

Researcher: Do you think that there is a time frame associated with this?

Subject: I think there is a time frame associated with this – I absolutely do. And I think it varies from person to person. What happens I think from my own take, I tried a lot of different things in physical therapy. And I am more proficient in where I am now because I have really focused in on that and I do a lot of things there. If you stuck me some place out of my familiarity and out of my environment I don't know if I would be as proficient as I am now. I think that these time frames apply as long as you have people in a set setting whereas a lot of therapists that jump. That grass is greener some place else. Work is been unbearable, its been very busy and I have been under a lot of pressure. A lot of these people think that they ought to be making more money so I am going to go. And that happens all the time and it's never greener, it just looks greener. Do you really need to spend more time becoming proficient? No because you have not developed the connections that you need, you have not learned from the environment that you are in, and they move along. When that happens it's hard to get to that status.

Researcher: The novice that you were as a new grad person and the new person with some experience in a new setting; are they the same?

Subject: A novice from the new grad and the novice for the different setting probably not the same thing. At least if you are from a different setting and you are starting over; at least you

should bring with you some of the skills of interaction, people interaction. Those basic skills that carry over, I don't care what job you had. Those take a while to develop. I think a new grad is different than a new person in a different setting.

Researcher: If I say productivity to you, what does it conjure up?

Subject: You said the wrong word! Productivity is a very hot button issue in medicine. I think it means different things to the therapist. To me it's a huge push to get as many patients in the door and make as much money as possible for the clinic that you are working with

Researcher: Does it mean the same thing to all those levels?

Subject: No. For me being productive for where I am now, I know how to orchestrate my day, get it done and still give my patient good quality care in that time. A lot of these levels, they see a productivity number they know they have to get there and they are just going to push through until they get there. [Advanced beginner, novice] They move their patients in and out the door quickly because they know they have a productivity number to meet. Does not mean a patient is getting good treatment and I think it pushes them to push their patients into exercise situations instead of into a hands on treatment because it's quick and you get them in and get them out. I hate that plus we are unionized which is very unusual and I am the president of the union – productivity is a huge issue for us. How many patients can you do? I can name that tune in three notes. I think there is a fine line between being productive and being a patient advocate. That is what got HealthSouth in trouble.

Researcher: If I say motivation, what does that mean to you?

Subject: I think there are lots of ways to motivate people? Are we talking about motivating patients or motivating staff?

Researcher: You tell me!

Subject: If I am motivating my patient then I am a glorified cheerleader and I am happy to be it. I am happy tell people what a great job they are doing and how they are advancing, push them forward and do all those wonderful things. If you are motivating the staff, again you still want to tell that they are doing a great job but it is a little different. You want to be more concrete stating what they really did a good job on. If it's motivating because I want to give you more money because you saw more patients then no, I am not too wild about that. I get very upset about those things.

Researcher: Who is going to tell you that you fall into one of these categories?

Subject: Nobody I work with! Sharon could! My peers. People that I worked with day to day. They could tell me. No upper management, none of those. Because a lot of times those people who have moved into management have not experience or very minimal experience and I don't really respect their opinion as far as my clinical experience goes. I would ask people who are my peers Sharon and another therapist that I work with at that same level; I believe what they have to say better. They are more accurate in going you are doing a really good job here, or they come and ask me a lot of questions and I know I am doing better because if they are asking me for my advice it pushes me up into another category. I think a lot of this is probably self-awareness more than anything.

Researcher: How would you measure, what kind of tools would you use to measure this? How do you put it into an appropriate place?

Subject: That is very thought provoking. I think that the things that you can look at that are already in place, all of our patients are given a satisfaction surveys, you look at how they look at the end of the day, you know how you interact with your physicians. If you were a stinky therapist, no physician is sending you any patients. And also in this job like any other

job, it is word of mouth because so and so told them to see you. But the things that we have concretely in place are the patient satisfaction survey, we have this life-ware tool just a functional tool to see how patients are. We know what our patients look like at the end of their treatment, how did they measure from point a to point b and in what time frame did I accomplish that. I think those will give you concrete pieces. And unfortunately you have to look at their productivity tool. Because unfortunately I can be an expert clinician if I see two patient in the whole great big day. I could do great work but I have to see ten to fifteen patients and I am still doing really good work then I would still put myself in the upper categories.

Researcher: Should I be asking these kind questions?

Subject: I think this is good to ask these kinds of questions. I think we need to see how we are educating ourselves. How are we progressing people to become more expert in their clinician? How are we getting them to get through their day in the challenge of medicine, how it's changing within our reimbursement schemes and how do we get people to be still be expert clinicians watching the money piece and the productivity piece. I guess my question how do we teach people to get from novice to expert? That's the golden question and consistently how do we teach people from novice to expert? Because you might come to my facility and I might be your clinical instructor or your supervisor whatever and I want you to get from here to here so I put in place things that I think will help you. I give you challenging patients. I show you courses that are available we discuss cases we discuss treatment methods. We do all these things to get you to this point all the way through. But I could send you over to HealthSouth or some other company that is interested in getting as many people through the door and as many charts done in the day and they don't have this inherent piece.

Researcher: I think we are good!

Subject 107: Expert Physical Therapist

Researcher: We have read the consent form and obtained your signature of consent?

Subject: Yes.

Researcher: What is the highest PT degree that you have earned?

Subject: Bachelor of Science degree.

Researcher: The year of your graduation?

Subject: 1988.

Researcher: University or college that you attended?

Subject: Northeastern University.

Researcher: Have you garnered any certification or specialist credentials?

Subject: No. I do have a certification in PNF.

Researcher: And what year did you get it?

Subject: 1998.

Researcher: How long have you been working in the physical therapy profession?

Subject: Since 1988.

Researcher: And the time working in the physical therapy arena, like a tech?

Subject: I was a co-op student for three years. Three years before graduation.

Researcher: Have you completed any course work over the last few years including CEU's?

Subject: I did take continuing education advanced classes at Mass General.

Researcher: What was the orientation of the classes? Were they generalist, were they neuro?

Subject: They were more neuro?

Researcher: Have you participated in any clinical education, college teaching or mentoring of junior staff?

Subject: I was a lab TA for Northeastern's neuro labs for two years.

Researcher: Clinical education or college teaching?

Subject: I did not teach any clinical education but I participated, yes.

Researcher: As a clinical instructor?

Subject: Oh, that yes.

Researcher: You are a teacher! How long did you do that – all along?

Subject: I usually had a student, one a year. One year I had like three in a row- almost six months of clinical education.

Researcher: So how long have you been a clinical instructor?

Subject: Since two years after graduation.

Researcher: Have you participated in any type of clinical research?

Subject: No

Researcher: Your colleagues describe you as an expert. Do you agree?

Subject: In some aspects of physical therapy, yes! That would be a neuro diagnosis and basis.

Researcher: I'd like you to talk about your experiences as a physical therapist. What I am going to ask you to do is discuss some experiences that have helped mold you. I would like you to give me an example of an interesting case that you tackled recently.

Subject: In terms of experience throughout my working life?

Researcher: Yes. But what case example has taken place that has really hit you?

Subject: I have to think about that for a minute. [pause] I think the one that has stuck out the most would be actually an elderly person above the knee amputee who got their sea leg. Gait

training with them and just working through that whole process and watching his other medical conditions interfered with it. Trying to adapt a treatment program to let him reach the goals that he wanted. He had significant diabetes, cardiovascular disease, spinal stenosis, and things like that. He was actually doing great and then he fell. That set off his spinal stenosis issues and we had to back off. Trying to deal with the back pain and which were interfering with the appropriate gait training aspects that you had to use in terms of posture and things like that. And then watching and realizing that he was not a surgical candidate so that he actually had to, he could not continue with his gait training. I think he ended up going from home to a nursing home because of that one issue.

Researcher: If you were interacting with a patient for the first time, describe your interaction.

Subject: The first thing would be to get them at ease, be it a new evaluation or covering somebody. Either if it's an established program going through or if I am making modifications, explaining to them why I am doing something. Giving them the knowledge of why things are done and how it affects the overall outcome of why they are in therapy.

Observing them and seeing how they are doing, trying to get them to actively engage in what they are supposed to be doing.

Researcher: If I was standing out of the window watching you work, what would you look like?

Subject: I would be close to the person, giving probably verbal cues, tactile cues, looking at technique, along those lines.

Researcher: How do you decide on the best course of action for your best treatment choice?

How do you get there?

Subject: Usually you rely on experience first and if that isn't working, then you re-assess.

Either discuss with other people if they have any ideas or suggestions, change and modify the program.

Researcher: How do you decide that your course of action has benefited the patient?

Subject: Either a) by seeing improvements, b) by asking them if what we are doing is making a change, are they doing things better outside of the clinic. Cause in the end you can have those object measures that say they are improving, but if a patient does not feel that they are improving, you have a problem and that's hard.

Researcher: So the patient perspective is important?

Subject: Yes.

Researcher: How would you interact with other PT's around this point or other disciplines around this point? Say for example this patient that you had. How did you interact with other PT's and the other disciplines involved in the case. What did you do?

Subject: With that one case that we talked about that was the amputee, I was on the phone with the prosthetist. Frequently, even during the treatment session saying "he's not standing up straight or this is not working, is there anything we can do, are you busy can you come over now while he is here." They were right across the street. Again asking other people in the department that had more orthopedic background. What else can I try that might help? And then he was seen in the prosthetic clinic so discussing as a team there "what else can we do?"

Researcher: How do you know that you are an expert?

Subject: [Laugh] Through experience, through acting as a clinical resource within the department. By having people come up to me in the department and asking me "what can I

do about this tough person?" and giving them suggestions and seeing that the suggestions have helped.

Researcher: So you are a resource?

Subject: Yes! The fact is that you have expanded your basic knowledge and taken other courses that have given you certain aspects of expertise in treatment.

Researcher: Pick the next level to talk about?

Subject: Let's start at the beginning – Novice.

Researcher: Were you ever a novice?

Subject: Oh yes [laugh]. And there are areas now that I would consider myself novice.

Women's Health is a whole entire issue. I came to a point, I had this evaluation once, brought by her the script said back pain. Took this history and it came out that it was women's health pelvic floor areas. And I was like ok! I did a basic evaluation and decided that I could not give this person what she needs. She needs to see some one that has this experience because it is such an individual area.

Researcher: I am going to flip you back and forth a bit, but keep in mind your point of how you described how the expert went to a different area. When you first read that novice descriptor, where were you when you were the typical novice that came to mind when you read this descriptor. What were you like?

Subject: I guess that was more the new graduate, student, that first few months out of college. Where you sort of just had to try to figure out what you were doing and I think back then I had a total of, I was just thinking about that, eighteen weeks of clinical, total, for the entire experience. I related that to just having a student finishing. Having a student for sixteen

weeks for one clinical, what a difference. My outpatient clinical was six weeks long, that was it!

Researcher: So they said bye, bye have a nice life.

Subject: They said you will do fine!

Researcher: So what do you think you looked like? If you were standing outside of the window, what did you look like?

Subject: I probably looked the same in terms of my mannerisms. It was more of an internal dialogue of what I was thinking and what I was figuring out in my head as I was going along. It was not that automatic determination of where the progression, it was like ok, everything was more planned out. Work went into planning everything before, going forward and this then trying a, b, c and d. Where as now, "Let's try this, but that's not working so lets go straight to here". Making those decisions now instead of having to make them before, see if they work and then change.

Researcher: How did you as the novice decide the best course of action for your patient? How did you know that the patient had benefited from the actual intervention?

Subject: As the novice, I think you thought more and still probably asked the patient if they were getting better. At that point it was acute care and you didn't have to make a lot of the decisions. Because they were going to rehab. The biggest in a sense decision was that you had to decide if that person was an appropriate candidate for rehab. Back then things were so different anyway, length of stays were longer. Very rarely did you come across having to send someone home who was not ready, were as now you run across that a lot more and insurances are dictating things. Back then it was not a big deal.

Researcher: What was your interaction like with the patient?

Subject: Back as a novice, I was a lot more quieter. I did the things that needed to be done in a sense. And then hoping that they won't ask me why. Am I going to know the answers?

Researcher: Pick the next level.

Subject: We will go advanced beginner.

Researcher: Where were you and what were you like as the advanced beginner?

Subject: I think the more advanced beginner came for me once I had worked for a year in a hospital. Then I traveled for five years. Once I had to start adapting a whole lot quicker or I decided to make that transition and knew that I could make those changes.

Researcher: How did you know that you could make those changes? Did something happen?

Subject: No I think it was that confidence level increase. The ability to do and get through that medical record and make those decisions on your own and to have people, be it a PT assistant, come and ask you for your help. A big thing was the realizing that the residents changed. Having those residents come in and having to correct them and say "you really don't want us to do that – no I think I am going to do chest PT on that person!"

Researcher: How did you interact with the patient?

Subject: Again as that confidence level increased, you were more at ease with what you were doing. It made it easier to engage them and try and figure out where they were going.

Researcher: So it was easier to engage the patient?

Yes. Again you were not afraid that they were going to ask you all these questions. It was actually that I do know what I am doing. I do know that.

Researcher: How did decide your course of action? How did you know that your course of action benefited the patient?

Subject: How I decided? I started having the experience of working rehab as opposed to acute care. And I actually worked down south where things are a lot slower. I actually had the opportunity to see the progression of that type of patient. I had never sent a total knee to rehab, very rarely did I send them. They stayed in acute and then went home. And there I was in a rehab facility where there were all of these total knees. Why were they in rehab? So I knew the progression, I knew what the expectations were, I knew how to set goals now. You had to see how person A did, and then did person B progression the same why or did they have little blips in the road? So when you got to rehab, you had all this information stored in you, and it was like ok this is how you should go. This is where you need to be to get home and this is how long it takes the average person, add a little bit from there. It was using that experience and then how did you know you got there is that the patient actually made it home or achieved those goals and they were ready to move on to the next step.

Researcher: You pick the next thing.

Subject: We are going up to the competent clinician.

Researcher: So tell me about the competent clinician.

Subject: [Pause] I think that competent clinician came more or less towards the end of my traveling. I did most of my traveling when I could in a rehab setting so I had four and five years to make those decisions. Then it was no longer ok to just get somebody walking and it did not matter how they walked. I focused in on the quality of issues and things like that. I remember one of the first few traveling assignments. One of the PT's had all of this NDT education and she would not let... The person's goal in rehab is to get up and walk. They want to be walking. She just held them back for so long and worked on all the little components. Then I could not understand why would you just not let them walk, upright is

good! I started working and started to see the long term range of trying to correct all those bad habits back then, it is just not ok. Its ok in a sense to get them up and walk, but don't develop all those bad habits taking into account what is going on now, but even those long term ramifications, so you slow them down a little bit. They will reach those goals but it will take them longer to do but the quality in the long run is better. The motor planning and the motor control are better.

Researcher: At that point, how did you decide what intervention choices to make and how did you know that it was a benefit to the patient?

Subject: By that time you need to start developing where your niche is and take the continuing education courses that you want to develop that knowledge. For me the decision was to break things down and work in components and work on function. A way that I saw the progress was when, as I was watch somebody walk, you would see that it was more a qualitative thing. It was a better quality of what they were doing as opposed to in my mind to what people were doing before such as deviations. Or maybe looking at somebody who did just set them off to walk and did not have the next level of skills and seeing that person's gait versus seeing someone who had taken time to break things down and seeing the outcome.

Researcher: What did you look like?

Subject: Then I would look more... I think my hands went on the patient more at that point to facilitate that [movement]. Now, that is what I try to instill as a clinical instructor – your hands have to be on the patient. It does no good if you tell someone what to do and they don't get it and you just keep trying to change what you are saying. You need to bring someone through it and your hands are a big skill whether you are orthopedic or neuro based is to bring them through what they are doing.

Researcher: Are your hands staying on the patient?

Subject: They are for a while and then you have to take that support away. Your hands are a learning tool. You let them learn, you take it away and just try to change your cues. And then you come back and hopefully see that carry over.

Researcher: How about your proficient person?

Subject: [Pause] The proficient is when you have found that area that you enjoy, develop and pursue.

Researcher: Specialization?

Subject: Yes! And then in a sense, where you specialize is your niche and that is where is your thought process is. But, you take that specialization and integrate it into other aspects of PT. You carry it over, so it does not matter if you've specialized in neuro that those skills that you use there, you can take and put them into an orthopedic client clientele. Put them into an amputee and vice versa. Gait training with a neuro person you can use those same components in the orthopedic area. It may change how you get them to do that but the components do not change.

Researcher: What does the proficient person look like, observing them from outside the window? How do you know?

Subject: I think it's how they interact with their patients, but also how other staff interact with them too. It's coming to them with question and it's watching how... if others pick up on ideas or things like that. You are becoming more and building up that resource, people are coming to you. Part of you knows your self, know that you need to pursue sources of evidence. I know I don't know everything, and I am not expected to know everything, but I know how to get those answers, be it looking up that research. Sometimes you look around

they are afraid to ask “ I don’t want to ask that question because they won’t think I know what I am doing” You [proficient] are so sure in your knowledge base and what you are doing that you can ask a question.

Researcher: The folks before were a little afraid to ask?

Subject: Some where in that competent and proficient – it depends on the novice or new grad! You really want them to ask questions but they don’t, think they are supposed to know it. It is really frustrating at times, just ask –“well then you are going to think I am stupid.” I get that so much with students. Why did you not ask the question “because you are going to think I don’t know the answer.” I am like, “well I need to ask the question and I am thinking you know it. If I ask you a question and you are in the middle, I am going to be more angry – answer the question and say what you are thinking, is it right?” This is what I see more of now, new grads coming out, they don’t ask as many questions, the majority of them.

Researcher: Do they think they are supposed to know it?

Subject: Yes. Or they think they do know it. From my experience and with people who I have gone to school with, we always asked questions and bounced ideas. We took advantage of people who knew more. Over the past couple of years, of all the new grads that I have worked with I have only had two who have done that. It is just an eye opening thing, and I don’t know if it is the way things are learned in school now and there is so much information given? In PT school, we had to learn on your own or outside in continuing education, they definitely come in with more of an academic knowledge base than we did. Maybe they have things that we didn’t as a new grad. I don’t know.

Researcher: When I say motivation, what does that conjure up?

Subject: Motivation is basically the desire to want to do your job and do it the best that you can.

Researcher: How about productivity?

Subject: Yuck!! [Laugh] Productivity goes into the numbers and the business part of the job and to me that is the frustrating part of your job.

Researcher: How would these stages cause productivity to differ? You were the expert speaking. Would they say any different?

Subject: No. In my opinion the novice should not have to be concerned with productivity because it is just being able to get everything done. Those advanced beginners – they don't see it as an issue. This is kind of what is expected sometimes and they are still not encompassed yet and not an issue. And again it depends on what those productivity standards are and if it is being constantly pushed on you. The competent and proficient have worked more than one place or been in place for a long period of time. They know what different clinics are like and they realize what standards should be met. If they are told to double somebody, it is not fair to the person. It comes down to a quality issue and in a sense a monetary issue. Unfortunately in our profession you have to balance both of them. You see the two clinicians who disdain the clinic and you see the other who breaks out into management and understands but not really understands but has that business attitude.

Researcher: Do you think that there is a time frame attached to any of these?

Subject: No. Because I think that everybody learns at different levels. It all depends on where somebody may spend the first few years of their jobs, exploring the all different the avenues before they find where they really and truly like. It is such a diverse job experience. You can go basically any direction in this job, which is great, but if you don't know where you want

to be or you start in one area and then you think “I really don’t want to do sport medicine” and that was me. I also thought I would be ATC orthopedics outpatient, and then I started doing rehab, what a different this makes. When I was in college I thought, “I never want to work with a stroke you know how long it is going to take someone to learn to tie their shoe?” and you see that you have really impacted the quality of somebody’s life. So in terms of putting time frames – I really don’t think. The other thing too that comes up with this whole DPT thing – it is really hard to come out with the letters DPT, yet the person with 20 years experience has so much more knowledge. Where is that balance? For me that DPT should mean more. It should be that expert clinician. That is where that [credential] should be in my eyes.

Researcher: Who is going to tell you that you are at this level? And concretely how is it going to be measured or what tools are you going to use?

Subject: Some things are in place. You have the specializations to the APTA that everybody has to study. And it is something that somebody chooses to advance themselves in. You have the continuing education courses that have the specialization that you have to pass those tests. So when you get to higher levels you do have some measures. It is the lower levels that are harder to measure.

Researcher: Who is going to say that you are an advanced beginner? Who should tell you?

Subject: I think part of it is looking in at yourself and figuring out. A big thing is where do you rate yourself? But again if there were defined things – this is what you feel competent at a, b or c, this would help you push to the next level. What those things would be, I am not sure. What comes through is how you would or could do your job and how... are your patients getting better, I am not sure.

Researcher: Should I be asking these kinds of questions?

Subject: It has been a very thought provoking time. You start thinking. We have automatically gone through these times and I have never thought about how I got through these levels. But going from that neuro to orthopedic thing, I had to stop to and look back, look up things and prepare better. I am seeing myself go through all these things again.

Researcher: In the same length of time?

Subject: No quicker, all the basics are done. You can get through an initial evaluation. You may not get all the information you want but you can get the basics down and go back. You can look up that, and when they come in, I can go there. Or I need to look at where this is moving. Whereas when you first come out, it is all trying to figure out how you are going to get your job done. I have been in outpatient rehab for four years.

Researcher: Thank you!

Subject 108: Expert Physical Therapist

Researcher: You have read through the consent form

Subject: Yes.

Researcher: And I have obtained your signature of consent

Subject: Correct.

Researcher: What is your date of birth?

Subject: October 24, 1971.

Researcher: The highest degree you have earning in physical therapy?

Subject: Entry-level masters in physical therapy.

Researcher: What was your year of graduation?

Subject: 1998.

Researcher: What was the institution that you attended?

Subject: University of St. Augustine.

Researcher: What certifications or clinical specialist credentials have you earned?

Subject: I have my OCS, manual therapist certification, Credentialed CI, certified strength and conditioning specialist.

Researcher: Your CSCS you acquired what year?

Subject: 2001.

Researcher: Your MTC?

Subject: 2001.

Researcher: Your OCS?

Subject: 2006.

Researcher: Your last one?

Subject: CI credentialing was 2005.

Researcher: Can you give me, I know that you've done a lot of studying but the course work that you have completed over the last few years?

Subject: Towards my transitional DPT, and then just various continuing education courses home studies mostly in manual therapy orthopedics.

Researcher: Have you participated in any clinical education, clinical teaching or mentoring of junior staff?

Subject: Yes.

Researcher: Where did you do that and was that on the job?

Subject: This year I had four students, one or two last year. A year or two where I didn't have any students, but I had students in the past. I probably had eight or nine students since I graduated.

Researcher: How about staff members that you have hired and gotten going?

Subject: One staff member that I have now was my student. I have worked with him almost since he graduated. For the past two years, he's been out of school four years. So I have worked with him for the past two years. We talk about a lot of stuff, cases and clinical special tests, and different clinical information.

Researcher: Have you participated in any kind of research?

Subject: No.

Researcher: Not even for your master's program?

Subject: In my master's we did a research project. It was wound care; it was not anything orthopedic; it was a wound care issue. Since graduation, no real research.

Researcher: Have you done any data collection or contributed even to any discussion like this?

Subject: Only with you! It was last year or two years ago I came down to meet you. Was that part of this?

Researcher: So you did do research! Can you give a few examples of some of the interesting cases that you have worked with or recently tackled?

Subject: Trying to think of a good one [long pause]. They kind of all run together [laugh].

Lately I have been categorizing low back patients. When we get acute injuries, I have found that most of them can be divided into or fall into a certain category of, basically, to get better.

Whether they need extension or flexion, stabilization or manipulation, they all just kind of run together. I have not had any really good low back patients.

Researcher: You were speaking of the categorizations of patients that you have been able to establish. So you are starting to make some clinical observations.

Subject: I think it just speeds up the whole process. I take a look at them and identify what they need, just making the whole process more efficient. When I evaluate them and decide what they need for exercise, strengthening or stretching whatever. They fit into a category, and I start that. If they get better, then that's what worked. If they are not better on the second visit, I reassess and maybe change some things. All the patients are kind of running together, nothing really stands out because they all just are fitting into all of the categories.

Researcher: Is it because you have seen so much and nothing surprises you?

Subject: Yes. I am seeing SI patients or I am finding less significance in it. And I think part of it comes from doing my DPT and all the research about low back pain. The cause of it is not really definitely known most of the time and it's hard to say what it's definitely from most of the time. Most every radiculopathy it's just all low back pain whether it's from the SI or the lumbar spine. It's hard to really say exactly what its from and try to prove what its from. You could say it has a theory but whether exactly it's that or not, it's very hard to prove. I think that when I see certain patients that some clinicians may think SI, I think, ok, maybe it is but I am still going to treat it with stabilization. I think I have simplified low back pain which I think is the hardest thing to treat for new grads. I think it helps me when I have a student because I try to show them that. They have so much in their heads that I don't know if they can really assimilate the information.

Researcher: Has anybody been referred to you because they know the level of analysis you have or the skills that you have at your finger tips will be effective?

Subject: We really don't get cases like that because we are in a workers' comp clinic, so I think the way the people from the outside look at us is as just treating workers' comp injuries and that's all we can do. I don't know if all the doctors [in-house] think that way, that this person can only get better if they see that one person, at least the doctors that we work with. To me what I am seeing is that they just send them to therapy and I don't know if they really care who sees them or if they really see a difference with the level of analysis or treatment. I think the doctors look at therapy as therapy. No we don't get a lot from about, we take all workers' comps, we do take some private health insurance not a lot to get non-comp patients which is the type of patients you are referring to. Even though I am trained in certain specialties such as TMJ or spine, we don't have that type of relationship with doctors. We are not just the PT clinic where you would send a patient like that. I wish we were, and I don't know how to get that and establish that relationship with doctors doing that but, it is something that I would like to establish.

Researcher: Why don't we go back and look at the levels of professional development. You were saying previously that the definitions were quite meaty and you could relate to the expert. Continue in that vein.

Subject: Along the line of the expert specifically? I related to it because when I am working I just see anybody any time. I don't find myself having to think about anything before doing it. I just talk to them, and if I am evaluating somebody if an outside person was looking such as a student watching me, they might not think that I'm really doing that much but it's just because it's so efficient. There are certain questions you need to ask and certain tests that you

need to do and then I decide what to do and they get better. I think the speed and accuracy it's hard for an outside person to get it.

Researcher: What happens when you see a patient for the first time, what goes on?

Subject: I try to establish a theory. You have to understand that people who are coming here are healthy, no real past medical history usually. If they do, the doctors will tell us. We are basically getting a normal human who does a physical job that had a strain or sprain injury. I pretty much cut to the chase, find out their mechanism of injury, find out about the pain, and then I just focus on where their pain is and set out to look for things to treat. That is all you are doing. Well you are evaluating them to figure out what they need. When I have a student, I try to do a thorough evaluation for their benefit, because if they see me just doing the basics of what I need to do, they think that's ok, but its not for them. It's ok for me because I am not going to miss anything. But if they come in with a different person and do the same thing, they are going to miss something. It's hard to find when you get students to back up and slow down and do everything, I try to make them do everything because they are a student, and they need to practice everything. I try to keep it basic for them and focus in and just with more experience know what they need. On the first day I quickly decide what that person needs in order to get better, and then on the second visit as long as they are 50% better, I keep going along that road. If they are not getting better then I reassess and say maybe I missed something, pretty quick.

Researcher: So you agree then that you are an expert?

Subject: I think so! I never thought about it though until you told me to read this [laugh]. I would never walk around thinking that! But after you define...

Researcher: You guys are the most humble people on the face of the earth!

Subject: You almost question yourself “am I doing everything right?” because it’s almost too easy.

Researcher: What made you an expert? How do you know that you are an expert? You’ve seen the definition, the light bulb went off, there has to be something! If we go back to this knowledge clinical reasoning movement and virtues, what is it when the little spark goes off?

Subject: I think it is intuitive. The definition here, you can’t always explain it. There is always information in my head that I don’t necessarily spit it out but it’s there and I have ruled certain things out or considered certain things that gets me to a conclusion quickly. It’s intuitive I think. It sounds kind of weird but it’s reality. When you asked before about certain patients occasionally we get a cervical patient that has a specific facet problem, where the mechanical block where they can’t rotate and side bend to one side.

Those we can fix very quickly. We have not had any of those really recently to talk about but I mean they happen four times a year and in three visits they are better. Day one they come in, can’t move their head and a lot of pain, that visit they are 50-60% better, on day one and then third day they are back to work. It does not happen that often but when it happens, it’s obvious and you fix it.

Researcher: Could a novice fix the patient or identify that that problem exists as quickly?

Subject: No. Not without having taken certain continuing education courses in the spine where you learn how to identify it and how to fix it. I think a novice clinician would be too confused by the pain and it just would not be as clear. Where I just see it and that’s what it is. This is what this looks like. When a person has a herniated disc, it just presents a certain way. They say certain things, they move a certain way, they have certain findings and that is the

only thing that it could be. Whereas another PT would look at it and just get confused with the SI joint or myofascial and no this is what a herniated disc looks like.

Researcher: Keep in mind the herniated disc and facet. The novice PT, take a look at that definition – what does that person look like to you?

Subject: That sounds like a student – has had not experience in the situation. You can be a novice clinician, you can be a clinician working here on your first affiliation. You are a clinician obviously, you are a novice because you have learned all the procedures. You have the evaluation procedure, how to take a history and how to do the treatments but don't know how to go from A to D. The assessment part different from the actual evaluation.

Researcher: When were you a novice?

Subject: On my first affiliation! What was the environment? A hospital, acute care.

Researcher: How did you feel?

Subject: I was nervous! [Laugh] My first patient oh my! I was in Texas at Tex-Arcana, Texas. My CI's were both Phillipino; one spoke pretty good English; the other one didn't. One was a male, and the other was a female. The female did not speak well. So I have to go into this room and the lady just had a total hip replacement, and I'm sweating! It's so simple, get her out of bed and walk her around! I'm thinking what to do and they ask "what exercises would you do?" and I said "I don't know!" [Laugh]. It was sad, there is so much information in your head! In reality, it's basic simple stuff.

Researcher: The knowledge is there, but the clinical reasoning could not come out!

Subject: Couldn't apply it; It was hard to apply. In acute care, you apply it and assimilate it very quickly. Its not rocket science, it's pretty easy. The medical/pathology stuff is kind of hard but the actual treatment is pretty easy and straight forward.

Researcher: What do the novices look like on the outpatient arena?

Subject: The same as I think, in that you are nervous the first day. I had one girl come in eight weeks ago and she said “I am going home!” She was about to explode. I said “well alright go and teach that person the band internal external rotation.” Then she snapped right out of it, and that was it. And then she was comfortable. It’s something simple. You could take someone off the street and teach them how to teach somebody how to do something. I just made it basic. Starting from the end, the treatment part, because it was easier and then I went back to take the history, do the goniometry, do the manual muscle test and special test, and then the assessment part – that for a first affiliation in an outpatient setting is harder. That’s the hardest part, the assessment and the plan. The assessment and the plan, the history and subject is easy, doing the evaluation procedures are straight forward, but they need to practice that especially with the people in pain that’s another thing here. With acute knee injury, you are not going to be doing all these special tests, you need to do something about the pain right away. I think this is a good setting if you are going to do an outpatient setting first, this is the place you want to be. You don’t want to be treating chronic pain where you maybe need a lot of manual therapy, that is not good for a first affiliation. This is more like athletic training sports medicine, very straight forward. This year we have had two students that this was their first affiliation and they both did really well for what they knew; extremities and no spine. It’s their first so you are getting them comfortable talking to patient performing manual muscle testing and all the procedures and then learning some basic treatment strategies. So they go from the novice to I would not say advanced beginner but some where in between. By the end of.., when they walk in as a novice clinician but at the end of six to eight weeks, they have some experience.

Researcher: So when does the advanced beginner start or what's the span of the advanced beginner, whether it's a student or a new grad?

Subject: Advanced beginner, I think you would want to get there by graduation. Novice clinician is first affiliation, advanced beginner, they should reach that by graduation.

Competent clinician like a year or two out of school depending on where they worked and if they had mentors.

Researcher: So you are saying that the competent clinician requires some support?

Subject: I think so students may need that, some may not. My first job was at Commerce Park in Bridgeport. I worked with four other PT's, and it was a busy place. There was one PT there that I learned from. My boss did not really teach me any clinical stuff, but the other stuff like the talking part, he was good at that.

Researcher: Were you in still advanced or in competent or in between the two?

Subject: This is still for competent. I think around a year out of school you become competent. The first year you are trying to figure out pain! [Laugh] In this setting at least, outpatient orthopedics I think novice first affiliation, advanced graduation, competent one year, proficient three years, expert five years or more if you have had a lot of continuing education. You can't just stop once you have graduated. That's not all. There is to know, there is a lot more especially in outpatient orthopedics. I think five years to get to expert.

Researcher: Let's think of the advanced beginner. If you saw them moving around a patient or trying to think about... So, moving thinking, functioning, can you give me a description of what the advanced beginner would look like?

Subject: They might look a little awkward body mechanics wise. The novice would have no idea how to stand or how to position themselves or the patient even though they may have

been taught that. They are so focused on one part of doing a test, the patient may be too far away from them on the plinth, the advanced would be better getting at that but not perfect. Not having perfect body mechanics, maybe just need some fine tuning of their psychomotor skills.

Researcher: So is that how you would categorize somebody as advanced say if you were asked to answer a person who says “where am I?”

Subject: Yes.

Researcher: What do you think I need to know?

Subject: If it was a student on their last affiliation and I decided that they were at that level and they asked me that, I would tell them to use their body more efficiently trying to protect their own body using better posture and more efficient use of assessment of mobility and being more consistent with the techniques. You are comparing the same thing to the same thing not comparing apples to oranges.

Researcher: How well do you expect them to be able to think? You talked about integration for the expert as being so there it does not matter.

Subject: The advanced beginner I would want them to be able to tell me everything that they should be considering, not necessarily know the right answer or the right meaning as to what I would choose as far as a treatment or as an assessment and spit out all the things they should be considering. Whereas the novice they really don't have a clue. I am considering the first affiliation. Even the anatomy and biomechanics and all that is not right there! Should it be? I think for me on my first affiliation I already had anatomy, and I was not going to have any more of it, and I know then what I know now. I haven't learned any more, but I knew it. [laugh] If you asked me origins and insertions I knew it. A couple of students that I have had

recently haven't been that good with their anatomy, but I think they should be proficient with that basic stuff.

Researcher: How would you identify somebody who is competent? How do you know a competent clinician?

Subject: They are independent, more than independent! Because an advanced beginner if, that is, new graduate, end of last affiliation day one of work, they should be independent with most things. There are things that they are not going to be independent with some things or skills that they haven't learned but function on a basic level, everything that they have learned at school. The competent clinician I think about a year out of school function at a higher level assimilating the information faster maybe missing a few things hear and there, should be able to work on their own and treat 90% of anything coming in the door. Whereas as to treat 100% of anything coming off the street, proficient to expert. I think it comes down to have they learned all the information, every body part, everything that's out there that can walk through the door?

Researcher: When you talked about the low back pain cases because you have seen so many to categorize and that cervical facet problem, the competent person, how would they handle the facet issue or the categorization of low back pains?

Subject: The competent clinician would recognize the facet problem and may not know the best way to treat it though. And the low back pain, if they have been taught that way or have ever considered it, I don't know if they would figure it out as quickly. It's certainly possible if they have gone to continuing education at the beginning to be able to identify it but know the fastest or most efficient way to treat it.

Researcher: How about proficient? What does that person look like?

Subject: Should be able to for example the cervical facet should be able to identify it quickly, and treat it as quickly as the expert.

Researcher: How did you know that you had become a proficient therapist?

Subject: I think I felt that way when I found out my manual therapy certification. [Laugh]

The day I said “oh I passed then I must be doing something right”! [Laugh] Up to that point I said I have all this knowledge and I am doing this, but I am working with two PT’s who have twenty years experience and if we don’t always agree, then they must be right. But after that I said, well wait a minute, I have my own opinion, and I have been taught and tested. Maybe I am right.

Researcher: So it was your own opinion?

Subject: Confidence in my own opinion! I was two and half years out, graduated in ’98, passed in January ’01, two and half years. The difference between competent and proficient was the stamp of approval. Even though I went through all the classes and the tests and walked and was not sure about that, but it was the confidence.

Researcher: So you told me two and a half years to be proficient and you worked with folks who were time wise twenty years ahead. Who were they and how come you caught up to them? Was there a gap, did you catch up to them quickly? What was this time line?

Subject: One of them was and expert, the other one was not!

Researcher: Why?

Subject: One of them was... The one that was not, was older and she owned the business and ran the business, that was her focus, and I think she passed her peak. I don’t know if she was ever an expert because I don’t think she has ever taken that much continuing education. The other one was about 15 years out of school. She was confident in what she was doing and

knew what to do with every single patient and got people better. I think she functioned as an expert. Whether or not she and I would agree on every single patient who knows if we would have the same outcome with the same patient. That is part of physical therapy and part of the art of it and the lack of evidence of it.

Researcher: I am hearing some nice words. Art, lack of evidence, concurrent treatment but potentially disagreement in approach!

Subject: But potentially the same outcome! How does that happen? There are so many variables in people. How are you measuring an outcome – subjective or objective. If I see a person and get them objectively better, and subjectively better but maybe they would perceive something different in the treatment approach from a different clinician might be they be happier maybe not as much better pain wise or objectively but maybe have more fun in therapy. That happens!

Researcher: I am hearing a patient piece and a clinician piece between these two!

Subject: Patients come into therapy and they have certain expectation, theirs different from ours. They may be coming to therapy expecting daily short term pain relief, modalities and massage and that's it. Whereas we want to get them functionally better and sometimes that approach is not necessarily what is wanted by the patient especially if they have different motives, a motor vehicle accident with litigation, who knows.

Researcher: So what does that mean for your patient outcome when we are looking maybe a different place where the patient is versus the therapist?

Subject: The therapist has to accommodate the patient to a certain point but, at the same time, try to stay focused on getting them better objectively. I definitely do things now that I did not do five years ago, more modalities more not just “you have to do this because I know this is

what you need but you don't want to do this. Ok it's your back!" You don't want to do it ok. You want the patient satisfaction to be not just how their injury is doing but their experience.

Researcher: So which clinician out of those levels recognizes the patient? Or is it that they do but?

Subject: I think it depends on the clinician. I think that some clinicians are only going to think about how the patient feels and never want to do any procedures that might be painful to receive but result in the resolution of their symptoms. And there are some clinicians that totally ignore the patient's experience and just focus on the injury, getting better period.

Researcher: So which clinician evolves properly?

Subject: I think they can both evolve because I've evolved from being so focused on the objective findings and minimizing the social aspect of it. I have incorporated that more and the results have been better outcomes, bringing together the different pieces of the puzzle.

Researcher: Did that make you an expert or bring you toward proficiency and expertise?

Subject: I think it coincided a little bit. The definition of the expert has nothing to do with the patient. It has to do with the brain of the PT.

Researcher: I am hearing patient outcomes, recognition of the patient, integration or is it that you can?

Subject: In think in order to be an expert, you have to consider the patient. I think if you are clinically at that level and not considering the patient then you would not be complete. I think within the past two three years, two years probably, that's the last piece of the puzzle that I needed.

Researcher: To get the patient?

Subject: Yes

Researcher: You had the skills, you were on target!

Subject: To be more sociable and not be so drill sergeant like. I have been called a drill sergeant and I don't mind it.

Researcher: You?

Subject: Oh, yes!

Researcher: Where were you when you were the drill sergeant? You were good!

Subject: And I was getting people better!

Researcher: Where were you? What were you?

Subject: Proficient.

Researcher: So that last piece of patient!

Subject: It was realizing that it was not just about me, and thinking about what they needed.

Not every patient. Let's say I categorize my patients, and some people don't like exercise and some people don't like manipulation.

Researcher: With your expertise what did you do with the patient who did not want to exercise, yet you are the expert and you got them better?

Subject: Find a different way now.

Researcher: Whereas before would you have found a different way?

Subject: Maybe get a little frustrated with the fact that they didn't want to do it. Or, I am trying to think if I would convince them of a way to do it! There may have been patient who stopped coming. You may have a patient that stopped coming that, you have a patient coming to therapy and then one day they stop coming, out of site, out of mind. You don't automatically look for someone who has not been there. There may have been people that I

lost, I may have had the knowledge to help them but I was not paying attention to what they needed not just physically but emotionally.

Researcher: When the drill sergeant appear? But it sounds as though when you got the knowledge, I am going to make everybody better?

Subject: Competent, one year out of school or so.

Researcher: Drill sergeant out of school, we are going to be healed. What happened when people was not healed. I know some people just did not come back but what happened when somebody were not healed?

Subject: I am trying to think of where I was working when that first happened! I think that was on my first job – zero to six months. Maybe they would want to see another PT or maybe stop coming to therapy. I would always want to try, but some of them would end up having surgery if it was serious. That was pretty much it.

Researcher: Did that help you know that you were competent and that there was more to this?

Subject: What, those outcomes?

Researcher: Yes, when everyone could not be healed. Did it help you realize there was something else or was it just oh gosh?

Let me think! [Long pause] There are a lot of different examples, there are people that have chronic pain and there are a lot of reasons for pain, and it is not something that therapy can help; that's one thing. Maybe it's something that needs surgery or if they are in litigation and that's hard to control. Yes, maybe you could look for another treatment approach, maybe different manual therapy treatment approaches instead of the direct joint and soft tissue approaches, maybe thinking more myofascial release or cranial sacral It makes you think maybe try something different. These different things may work and people get better, but

who knows what it is from. This forced me to learn more. I probably would do that before considering the patient.

Researcher: You were saying that it was...

Subject: Treatment options and direction that I considered first before the patient, saying “what is wrong with you ?” I am realizing this now and I don’t know if I realized it then.

Looking back...

Researcher: Looking back when you were thinking about what the competent level is and what the patient needs were, but you yourself had the knowledge base to consider the options and maybe instead of getting straight to them as the expert, the tool box was there and you were finding them.

Subject: Now it’s easier for me to come to a conclusion, and I don’t have to use as much of my brain to think about what to do and I have time to not have to be so serious and focus on what do I need to do to get you better, but focus on the patient part of it too.

Researcher: So you have time to see the patient?

Subject: In my brain, it is not being used only to figure what I need to do to treat the patient them, I know what to do but it is also to talk about whatever. I don’t think most people do that. I think most people are focused on “did you watch Friends last night and then ok let’s treat your back”. I have seen that way more often.

Researcher: So is that person who is socially oriented and doesn’t ... I am hearing from you is that the series if growing therapists are occupied first with what to look for, what to do and what to choose, and as they get better, that becomes more efficient. At that point when you become more efficient in what to look for, what to choose and what to do, you have the socialization time or arrive or is open.

Subject: A certain percentage of people fit into that category, and there may be some people that can do both the whole time from graduation on.

Researcher: So who is this socializing therapist who has not spent the time to develop the what to look for what to do and what to choose? Are they just stupid?

Subject: No I just think they... I don't know what the reason is.

Researcher: Do they ever get to expert or are they experts from the get go?

Subject: No I don't they would at the expert level.

Researcher: What are they? Social butterfly?

Subject: Probably competent!

Researcher: Are there a lot of them?

Subject: I think most PT's in outpatient orthopedics are probably that. Competent to proficient! I think that for a lot patient its just about the experience and they are not expecting to get better from physical therapy because they think PT is just heat, ultrasound, and electric stimulation.

Researcher: Not pain and torture?

Subject: No people don't like that!

Researcher: What do you think got you from the novice to the expert?

Subject: I think just my own curiosity and being analytical, desire to learn more. From that taking all the necessary classes to learning more which helps you assimilate everything.

Where I am at now most of what I do is very basic, it's just knowing when to do it. You don't think so?

Researcher: What you do?

Subject: Yes.

Researcher: No!

Subject: No? That what I do is basic!

Researcher: No, its not!

Subject: Ok.

Researcher: But you don't see it that way anymore do you?

Subject: What do you mean?

Researcher: You see it as logical, normal!

Subject: I see what you are saying. I think it's just basic but it's really not. I made it – that s my level.

Researcher: I am a geriatrician, did my nursing home work, did my stroke, got my NDT.

Subject: Stick me an outpatient clinic even though I do teach the basics of the ortho lab, stick me in there to do an evaluation, I would grow roots into the floor. I would know how to do manual muscle test, ROM, I would have to pull out the McGee to see which tests I really needed because when I teach it is not in real time. It is just the technique!

Researcher: It is just the technique. Gary says to me I want you to talk about how to test the anterior stability of the joint that's lab two – go ahead Sal. – do you want me to do A, B and C and he says no do A, D and F. I say ok. So then why do you think I don't think it's basic!

Why am I wrong, or why am I right?

Subject: To me it just seems so simple. What I think of as basic, what a student looks at may not be really basic because of all the different steps that I take to come to a certain point.

Researcher: What if I gave you a stroke patient?

Subject: would keep it functional. [Laugh] Reaching, walking. I think I could because I have done home care and I have had strokes and it was functional. That's how I would approach it.

Researcher: So if I dumped you in the middle of a stroke unit now say Gaylord, what would you be? Oh, no! I don't want to think about it! [Laugh]

Researcher: But would you stay at the point of I don't want to think about it for too long?

Subject: No I would learn! If I said I was quitting here and going to work there. I would go to a class before I would start working there. [laugh] I would have to get to competent before I would go to work there some how I would go to classes or review something. I could not just walk in there with 8 years of experience and be a novice or advanced.

Researcher: You wouldn't do it?

Subject: I think I could do it, I would have to practice or review something to get there.

Researcher: But how would you know what to practice?

Subject: Review what I learned in school and go to a continuing education course probably.

Researcher: But would you stay competent for as long as you were competent in outpatients?

Subject: I think I would progress more quickly. I think there is just experience in seeing a way how to perceive injury. Who knows how many years it would take? If I had enough interest in a that type of patient, I think I could get to whatever

Researcher: Is there a time frame to any of these?

Subject: I think novice is during school to first affil, advanced by graduation you need to be there, competent a year, proficient three years, expert five years or later.

Researcher: What about the folks who don't reach proficient or expert, how do you explain that? Because you said some folks who stay competent or proficient?

Subject: Just motivation or lack of interest. Maybe they went to school for PT just for a job. Motivation and desire to learn. Desire to just be the expert, to be the one that people ask, the resource.

Researcher: Do you think I am nutty asking this?

Subject: You know the drill sergeant now.

Subject 109: Expert Physical Therapist

Researcher: You have read the statement of confidentiality statement and the agreement to participate?

Subject: Yes Ma'am.

Researcher: What is your date of birth?

Subject: September 18th 1959.

Researcher: Highest degree in PT earned?

Subject: DPT

Researcher: Year of graduation?

Subject: January 2007.

Researcher: The College or University you attended?

Subject: Boston University.

Researcher: The previous qualifying PT degree?

Subject: Entry level – BS from UC San Francisco, California.

Master in orthopedic physical therapy – Quinnipiac University, Hamden Connecticut.

Researcher: Specialist credentials or other certifications?

Subject: Board certified in orthopedics – APTA.

Researcher: The year you earned that credential?

Subject: 2001.

Researcher: The amount of time that you have spent in the physical therapy profession?

Subject: Eighteen and a half years

Researcher: The amount of time worked in the outpatient arena?

Subject: Eighteen and a half years and I have also done also done inpatients. I moon lighted for six years at Lawrence and Memorial Hospital (New London, Connecticut), on the weekends.

Researcher: Were you a physical therapy tech or aide?

Subject: I was a PT aide for one year.

Researcher: Is there any particular CEU's that you have done over the last couple of years or the whole time? Orientation?

Subject: Yes. Most of it was outpatient orthopedics and some quality assurance.

Researcher: On average how many a year?

Subject: Usually one or two courses per year.

Researcher: Have you participated in any clinical education, college teaching or mentoring of junior staff?

Subject: I have had PT students, absolutely. And I have had PTA students, yes.

Researcher: How many years?

Subject: Seventeen years.

Researcher: Mentoring staff?

Subject: I don't have any junior PT here but it goes back to students PT and PTA.

Researcher: But you have worked with the core man?

Subject: Mentored her as a PTA.

Researcher: Have you participated in any kind of research?

Subject: Formal? We did one study here on shoe inserts. I would have to say yes.

Researcher: Can you give me an example of an interesting case that you tackled recently?

Subject: Interesting from what stand point?

Researcher: Interesting to you as an orthopedic clinician? It could be interesting to you as an orthopedic clinician where the case had a level of complexity to peak your interest?

Subject: Yes, I am trying to think of the patient. It was a knee patient, a recruit who complained of knee pain. No history of trauma, but complaints of pain when she goes up the stairs. She gives a history of swelling but there was none present when I examined her. There was a question of motivation as a component behind this patient. You try not jump the gun and get to the ah ha too quickly, and I was glad I didn't because she was guarding tremendously so it was, I had to do a decent exam. I asked her if she had subluxed her patella. She did not recall specifically so I decided to look at the other knee, and in comparison it was "loose as all get out!" I came to the conclusion, could there have been a motivation component, yes, but could she have momentarily subluxed her patella causing an effusion and the pain in her knee? Everybody was jumping to the conclusion that she was malingering. I gave her the benefit of the doubt and said that she could have momentarily subluxed because she said pain happens with stairs. You know the patella subluxes when you bend the knee to thirty degrees and what do you do with stairs. Everybody thought it was one thing. I would say no and give her the benefit of the doubt. Is there another component yes but I gave her the benefit of the doubt.

Researcher: You have in front of you the five levels of professional development. I would like to dialogue with you about. Your colleagues describe you as an expert. Do you agree?

Subject: Yes ma'am.

Researcher: Why?

Subject: Because I was told in graduate school, and that was at Quinnipiac, that when you have a master's degree in orthopedics and a board certification you are an expert and are able to testify as an expert witness in a court of law.

Researcher: Why do you think you are an expert?

Subject: I feel that I am an expert because that is what I have a degree in, and that's what my board certification says. My eighteen years of practice has been in orthopedics. I also ran the orthopedic clinic at the academy in which the Navy orthopedics surgeons came over. I ran the clinic; that was six years of working with orthopedic surgeons coupled with the degree and board certification. I think that would suffice.

Researcher: Describe your interaction when you are meeting a patient for the first time.

Subject: From the start. Depending on the patient I may have a few minutes to do a chart review or at least read what they are being referred for on the consult. Depending on what the diagnosis is you may draw your own conclusions and expectations about what this patient is going to present with. It does start from the moment when you get a chance to see them walk into the department, the eval starts from there, as you know. They are already seated on the exam table and you already draw some sort of picture in your mind about.. Are they in a brace? Do they have assistive devices for ambulation? That is apt to happen in about an nanosecond. And then you have of course the subjective part. You briefly look over the chart and then you say "can you tell me a little about what's going on?" You let the patient talk.

You usually have an hour and within that time the first 10 minutes is the subjective, the next 10 to 15 is the actual evaluation and the last part is coming up with the treatment plan.

Researcher: How do you decide what is the best course of action of treatment for your patient?

Subject: This goes back to one of my professors, I will say that he was one my mentors, Steve Bissett. Steve he taught orthopedics at Quinnipiac. And it was one of the hardest classes in the Program. I have a special place in my heart for Steve. He is very smart and I would not want to have a battle of wits with that man, and he was a good friend. I always remember what he would preach to us, and I use that term with some affection, “what will the patient benefit the most from today with you? Pick three things that the patient would benefit the most from on that day.” Versus throwing all these treatments and modalities at the patient in the hope that one would work, he would always tell us “what would the patient most benefit from today or the day that you are seeing them?”

Researcher: How do you decide that your patient has benefited your work and your intervention?

Subject: Usually they are here for pain. So if the pain goes, that is usually the primary function diagnosis. Maybe if they can now do what they could not do in the past. Return to full activities.

Researcher: How do you interact with other PT/PTA's or other disciplines in your clinical area? How do you, the expert, interact with them? It could be surrounding a particular case. What is your interaction like as the PT person?

Subject: If they are referred! I do not direct access. When the consult comes over, if it is straight forward and there is not a problem, there is not much interaction. For example, if they send somebody over for a back, and I find neurological weakness, I am going to go back to the provider and recommend the appropriate diagnostic consults. I don't have too much dialogue unless there is a problem. If I do have a problem, I will go and find them and say, “this is the patient you referred, this is the problem that I found and I would like to

recommend the following.” They usually refer, they don’t really want to know unless there is a problem.

Researcher: If I were to stand outside the window and watch you working, what would you look like?

Subject: I guess it would depend on the day. Some days it’s more of a diagnostic consultative, some days it’s more.. We do a semi-rigid orthotic where I have them stand on the foot tech stand, we heat the blanks up and we glue on the half silhouettes. So some days you see me in front of the grinder. Some days I am a cobbler! Some days I am casting for orthotics. That is part of the diagnostic but there is an art to making a casting. I spend a lot of my time doing that. And you can’t put a price on your feet, because if you get the right orthotic for the right patient, it’s like magic.

Researcher: Think of an expert that you know. And have you met those expectations that have of your role model?

Subject: I will answer that in reverse order. Yes, and the expert is Steve Bissett.

Researcher: Tell me how you recognized Steve Bissett as an expert, other than a solid educator and being able to pull out of you what you needed to do in order to become this expert person?

Subject: When the masters program was at Quinnipiac, in addition to the course work, you needed to complete a clinical rotation. I was fortunate enough to spend two weeks the clinic he was in Connecticut and he also spent a week at the academy with me. That’s when I knew. So not only in the classroom, but I got to spend some time with this man.

Researcher: So, if the two of us were standing outside of the window watching Steve work, tell me what he looks like moving around the patients and the gym?

Subject: He is very deliberate. There is not a lot of wasted movement or talk. He cuts right to the chase and that's probably what impressed me the most. He leaves out all the fluff and cuts right to the chase.

Researcher: Let's pick the next level. You pick the next level and tell me which one we should discuss next.

Subject: Let's go with the first one.

Researcher: The novice. Can you tell me when you were a novice?

Subject: Right dead out of school! [Laugh] Or if you want to back to when you were in school, right when you were doing your internships.

Researcher: Who were you and what were you like?

Subject: Who was I? I joined the service right out of PT school and I went to an Indian reservation. It was interesting because I really wanted to be detailed in the coast guard but I had to wait. I don't know if it was the setting that I really wanted. It had out and inpatients, but it was mostly wound care. A little bit orthopedics. Did I fumble, yes! Did I rely on modalities rather than orthopedic expertise, absolutely!

Researcher: How did you interact with your patients, that first interaction with your patient?

Subject: My first patient was a twenty six year old Native American who got drunk and later went to the Rodeo and rode a bull, was thrown off the bull and transected the cord at C5-C6. My first patient out of school was a C5, 6 quadriplegic spinal cord patient. As you know, the Native Americans have no concept of what it is to be a spinal cord patient, let alone transecting the cord. They thought that because this person is not going to walk again, you are not doing your job. I won't say his name but I remember it vividly. They got him the Cadillac of wheelchairs because he was down at PIFC in Phoenix Medical Center for his

initial rehabilitation. This thing was fast! I remember when they were putting it together, I was going around the hospital and thinking that this is neat! But, I can get up and walk at any time and he can't. He turned down the electric wheelchair because of the stigma attached with it. He wanted to get the one with the pegs and self propelled. He was nice, but some days he was quiet and here I was out of school in uniform, wanting to save the world. I was happy to be out of school, but again the epitome of the novice and just trying to do what they teach you in school from a basic level. Your expectations are high, thinking that you can save everybody, heal everybody. You suddenly realize that that is not the case.

Researcher: How did you interact with other clinicians in your unit?

Subject: There was only one other therapist and this was hard. I say this with all due respect to that person; he had been in for nineteen to twenty years and his likes or focus was much different than mine. I did try, and eventually it is difficult when you have somebody right out of school – gung ho – and you have somebody who has been out of school for twenty years and is not as excited and has other priorities, not negatively. At first it was good, and then you could see where the two opposites may create a bit of friction. That was only for a year and a half and luckily I got detailed to the Coast Guard. It was a chance to have your own place, so to speak. I was the sole provider and lot of people expected me to fall on my face a year and half out of school as a Lieutenant junior grade. Only to be out of school a year and half to run a department and be the sole provider, needless to say that did not happen. It was good at first but when you have different priorities and different focuses... if there were more therapists there, things might have been different. There are more now than just two but it was a good experience and I will always treasure what I learned considering that I interned on a Coast Guard facility as a civilian, I knew that was my calling. It just was my destiny, pre

determined. I loved the Coast Guard, I loved doing my internship. I had a mentor who was Commander Smith. He brought me into the service. One day Commander Smith came over from UC Ala Meter to teach in one of my classes in PT school. I thought this was great as I knew that our counterparts in the military had much more autonomy. I was looking forward to this and my father had taught me a great respect for the military, and a friend of the family was a retired Naval Commander. At the end of the day, I was waiting for my wife to pick me up from school and we sat there and started talking. I guess he picked up on the fact that I had a great respect for the military. He said that he was only going to take one student in the summer for the full time clinical “would you like to be it.” I said “who me?” And he said “yes.” That was the start of a very good life long relationship. I liked his philosophy. When you went in and did his clinical affil, he said that “this is formality. I want you to come in here, learn a few things and move on.” I do that with every student I get. I tell them unless there is an obvious problem, this is a formality, try to learn a few things. You are going to have clinical affils – take the best out of each affil and create your own style. That is what he taught me, and I will be forever grateful. I try to pass along that first experience of how nice he made things because it still can be intimidating no matter how much experience you have had prior to your clinicals. He was great and I can’t thank him enough.

Researcher: Next level!

Subject: Let’s go down the line to the second one.

Researcher: What let you know or happened that you knew you were an advanced beginner and left novice behind? How did you leave novice behind?

Subject: Baptism by fire! It was here and did I make my share of mistakes! Doing the continuing education helped a great deal. Not having another therapist here, this was the

early 90s. They used to be really good. They would give you \$1200 a year and you could get a good course in and a hotel. They stopped doing that now – it comes out of my own pocket but I don't mind. That was probably one of the biggest things, to go and try and interact with other therapists. I would of course try to pick outpatient orthopedics; that is what I saw and what was it that the coast guard needed. I am kind of old fashioned in thinking “what is the mission?” If that's the mission, this is what I need to do to complete the mission. The continuing education, coming back and applying it!

Researcher: If I was to look at you working as the advanced beginner, what would be the difference in your novice work and the advanced beginner? What would be your actions?

Subject: Theory! I knew what I was doing. I had the tools, I knew what I was looking for. It was not just what they teach you in school. Simply put stretch what's tight, strengthen what's weak. That is the basic premise. But, when you make the transition, given the history, I know where to focus more rather than the blanket view.

Researcher: So when you are deciding on and making your choices as far as intervention, and you understand that your patient has benefited from your intervention, is it the same kind of process in figuring what is wrong with your person? How do you figure out at the advanced beginner level?

Subject: I don't know if you know right away or not. You usually have to wait until you have applied the intervention and seen the results. Versus when you are the expert you know it is going to work ahead of time. I am always right, no, but a lot of the time.

Researcher: As the advanced beginner and you appreciated interaction with other people in the continuing education part, what was it like in this environment to interact with other disciplines?

Subject: In the early 90s, it was nice. At the red tag review, I actually have a lot of power to say that a recruit needs to leave. They actually listen to me 99.9% of the time. In that regard, you are the expert. But I remember back in the 90's they did look to you for many things. Your responsibilities were daunting and impressive. The Commanding Officer said that this was a blank canvas – go for it. You want to just succeed as the expert. To interact, the other disciplines were great – by definition the physicians. They had a great respect for your talent. I knew I made the transition from the novice to the advanced beginner was when what I did worked more often than not. Success!

Researcher: Next level. You are the competent clinician – what were you like when you first knew you were competent?

Subject: What was I like? How did others see me? How did I feel? There is a little bit of an air of arrogance when you first realize, “yes, I do know what I am doing!” I also think that the longer I do this, the more humble I get, because it really tells me how little I know. But I think the first time you master something, you have an air of cockiness. I tell everyone I know that I am a graduate of the ‘school of hard knocks with distinction’ and at the top of my class, I learn the hard way. Yes, arrogance! I first noticed that when at the academy and half to three quarters of the way through the masters program because that program gave me the real tools. And also spending every week with the orthopedic surgeon for three hours going over every patient, that is when it really hit me. I could see this, did I make mistakes, absolutely, but that is when it really hit me. Quinnipiac filled in a lot of gaps that the basic PT education did not give you.

Researcher: If I were to stand and look at your work, what did you look like? How did you work?

Subject: Confident! Deliberate! Cut right to the chase! Leave out the fluff!

Researcher: When you interacted the first time with your patient, what did you do at the competent level? On the exam – any different than a novice or advanced beginner?

Subject: Yes, the flow of the exam was unbelievably smooth. I was very like Steve and how he had taught me. Smooth, deliberate and purposeful, conservation of extra movement and or speech. Focus!

Researcher: The decision that your patient has benefited from your intervention or gotten better, were there any different strategies for the competent?

Subject: When they came back on the return visit, if it was not right in front during the session. Word of mouth through the cadets seeking you out.

Researcher: How was your interaction with folks as a competent clinician?

Subject: It was good. I used to aspirate knees and give steroid injections. The greatest joy for me was when a cadet would have an acute injury within a day or two; their knee is as big as a grape fruit and they can't function, can't walk – they send them to PT for ROM and you just think how is this going to work. I would tap a knee and not cause pain using a small needle, to have the patient who could not bear weight leave your facility with a knee that was much smaller, but with an appropriate brace walk out. The carry over would even be to the next day because you have removed that fluid or blood and they are functional. To me that was very gratifying to be able to do that.

Researcher: Proficient clinician! How did you know that you became proficient? Was there an event? It got better once you knew what you were doing.

Subject: When the people who used to question you or were not so impressed by you came and asked questions.

Researcher: So you became a resource?

Subject: For the tough ones!

Researcher: What was your interaction with everybody? Different than the competent?

Subject: Yes. I think you are a little bit more humble and diplomatic. I think that this is when I won, a friend, a PA, his respect. He always told me to take the high road. When you get to the level that you are talking about, there is much less arrogance. There is a quietness and a humbleness.

Researcher: Did this humbleness translate to your patient care?

Subject: It did translate in that all you can do in this day and age is do the best you can and answer the patient's questions, and I learned this from one of the orthopedic surgeons. Before you did what you were requested to do without question. Now the competent provider is educate the patient and allow the patient to participate. Well informed patients make well informed decisions.

Researcher: What did you look like when you functioned in the clinic as a proficient person?

Physically and dynamically!

Subject: Yes, I think the patient can sense that this is not the student, this is the professor. It is how you carry yourself, your presence.

Researcher: Do you think that there is a real evolution to these levels?

Subject: The school of hard knocks with distinction! There is something to say for the school of hard knocks. You will never forget it. As you know pain is a great motivator. Could I have done things differently, yes, but things happen for a reason. Am I still learning, yes absolutely!

Researcher: Do you think there is a time line attached to these levels?

Subject: I would almost put them in four year or three year increments and that is from my own experience.

Researcher: When I say productivity, what does that mean to you?

Subject: My first thought is how many patient do you see in a day? Now is that always the case, no! Because you know productivity could be on many levels. But that is usually the first thought, the number of patients seen per day.

Researcher: Is productivity the same at each level? Does it mean the same thing for each level?

Subject: No. My first thought is that at the novice you think “well I have seen 15 patients for the day!” Versus for the expert, “I saw five but they are all better versus the 15 where maybe two got better.” Quality versus quantity.

Researcher: Is quality versus quantity a linear change along the levels? Is quantity a linear change or quality a linear change along the levels? A perspective?

Subject: I would say no because you change, you have good days and bad days. Some days free and some days you have a headache and you are looking for another profession.

Researcher: What does motivation mean?

Subject: Drive!

Researcher: Understanding that there is an evolution through these levels, does motivation change or appear differently in these levels?

Subject: It does, and I think it depends on the setting you are in. I described my first two where it was optimal and had full control of the clinic and the resource. You it drives you to want to be that person and be successful.

Researcher: What contributes to your evolution through these levels toward expert?

Subject: I guess the expectations of what a physical therapist is. You need to do something and if you can't recognizing that you don't have anything to offer the patient, they need to go somewhere else. Physical therapists pride themselves on recognizing the patient's needs and not just a bunch of modalities.

Researcher: Should I be asking these kinds of questions?

Subject: You should! You made me think. You made me do a lot of introspective thinking, which I have not done in a while.

Researcher: Should anyone tell you where you stand or what level you might be?

Subject: It would be good for somebody to recognize it. What will be my affirmation of what I have done is the military promotion – continuing education, master's degree, the doctorate, the presidential honors, the committee membership. That adds up to the military promotion, the highest reward that is not only monetary, there is pride in promotion. In the private sector I guess what would enlighten me as recognition of my talent would be for a person to come to you ask your opinion versus telling you.

Researcher: How might you measure one's level or provide tools of measurement to indicate that you have achieved a certain level? Or is it a life learning plan?

Subject: I think it is a life learning plan! It is hard to say when you reach it. You may or may not know at the time but later you will know when you look back. This may have to depend on the person also. Some people want a pay check, punch a time clock and get out. Some people are in it because they care about people and quality of life; they want to make a difference. They like what they do. It depends on where the therapist is coming from. I am old fashioned, patriotic and want to serve. I like the comraderie and helping people so that they can complete the mission.

Researcher: Very good! Thank you.

Subject 110: Expert Physical Therapist

Researcher: You have read through the consent agreement and I have received your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: January 1957.

Researcher: The highest PT degree that you have earned?

Subject: Bachelor degree, in physical therapy.

Researcher: The year of your graduation?

Subject: 1979.

Researcher: The college or university that you attended?

Subject: Boston University.

Researcher: Location?

Subject: Boston MA

Researcher: Any certifications or specialist credentials have you earned?

Subject: Credentialed clinical instructor. MA in sports sciences. PhD in education.

Researcher: When did you earn your masters degree?

Subject: 1987.

Researcher: From what University?

Subject: University of Denver.

Researcher: Location?

Subject: Denver Colorado.

Researcher: And your PhD?

Subject: 2000 from University of Denver, Denver Colorado

Researcher: You CI credentialing. When did you earn that?

Subject: 2001, I think.

Researcher: Was that Connecticut or in Rhode Island?

Subject: Rhode Island.

Researcher: How long have you been working in the PT profession?

Subject: Forever! Twenty-seven years. Actually there was a year and a half I did not work due to a knee injury.

Researcher: Were you ever an aide or a tech that extended your time in the profession?

Subject: No

Researcher: How long have you been working in the outpatient arena?

Subject: In this current job seven months, previously eight years.

Researcher: What course work have you completed over the last few years including CEU's or the orientation of your studies?

Subject: I usually try to attend combined section meetings every year. I used to go every other year. When I am there, I usually attend education things or orthopedic and aquatics

Researcher: You have been attending combined sections on a regular basis for how many years?

Subject: Probably 13.

Researcher: Have you participated in clinical education, college teaching or mentoring of junior staff?

Subject: I actually taught at the University of Colorado for a year. In 1989. From 1996 to 2006 I was the ACCE at the University of Rhode Island and I still do some mentoring of some undergraduate students that I had at the University of Rhode Island.

Researcher: When you say mentoring of students what does that encompass?

Subject: Pointing them toward field work experiences, applying to the program, course work they should or should not take.

Researcher: Can you give an example of an interesting case that you have tackled recently?

Subject: I am trying to think. I have a gentleman that I am seeing in the pool. I was called in to consult with. He has a knee flexion contracture that is about two or three years old. When I first met him it was 25 degrees missing of extension. So we problem solved. One of the things I suggested was putting him in a dynamic splint to stretch him into extension. I had to approach the treating physician very carefully because he does not take suggestion well. We got him to approve the brace, got the brace and the patient is doing fairly well.

Researcher: What was interesting about it for you?

Subject: It was his second admission to this facility and no one had thought about doing dynamic bracing before. It is not the kind of problem commonly seen in this facility. I had to educate the primary physical therapist and the PTA that had been working with him.

Researcher: So they let him walk around on a shortened leg?

Subject: Well, they were trying to stretch him out but just stretch was not really working well.

Researcher: You have in front of you the five levels of professional development. As we discuss the level, please try to recall some of the experiences that helped mold you as you currently work. Your colleagues describe you as an expert. Do you agree?

Subject: No. [Laugh] I guess so!

Researcher: Why or why not?

Subject: I always thought that if I thought I knew everything it was time to get out of the field. So I feel there are things I know and a lot of things I don't know, so I need to continuously keep abreast of what's going on and learning more because I think no one is ever an expert in everything. There are certain areas that I feel very, very comfortable in and certain areas in which I don't feel comfortable.

Researcher: Do you know anybody who is an expert or emerging toward expertise?

Subject: Globally?

Researcher: Physical therapy in terms of the outpatient orthopedics, global PT.

Subject: Some one who I used to work with URI. The director of the faculty clinic. He is someone to this day I could call upon and ask questions. I have never felt very comfortable with spine and he does. If I have issues or questions, I would always ask him.

Researcher: What did he like when he worked?

Subject: He always looked harried. He was always running behind and always looked a little disheveled. He always handled everything.

Researcher: To you, why is he an expert?

Subject: He has really good overall good skills. He has excellent handling and can discern things that I could never feel. He would palpate once and tell you what was going on.

Researcher: When you first meet a patient, what do you do?

Subject: I introduce myself. I start a conversation and try to feel it out, how to approach them, and also get a feel of where they are coming from. I try to find out why they are there and what they expect.

Researcher: How do you decide on the best intervention for that person?

Subject: Sometimes I have to really think about it and other times it is more intuitive.

Researcher: What steps do you go through?

Subject: I try to take a good history and then a good physical – talking to them the whole time to get a feel for what they have done, trying to find out what the problem is. If they are saying what they have tried in the past has not been successful, and get a sense of what might work.

Researcher: What is intuitive? What happens?

Subject: I take all this information and somehow the answer comes out. I am not sure where it came from. It's just there.

Researcher: How do you decide that your patient has benefited from your intervention?

Subject: I always – even where I work use a lot of PT's and Assistants, where the PT's set up the caseload. In theory you are supposed to re-evaluate in six and ten visits. I tend to always, if I can, I try to pop up periodically and see what they are doing and how they are doing, fine tune anything. I feel that with most of the PT's I have a really good rapport and they know that I am going to do that. They know that they can call me out of the pool and run upstairs and they know that I will do that. I tend to re-assess every session, certainly more than the official re-assessment, somewhere in between that six and ten visits, but we do those – I do the best I can.

Researcher: Are you saying that you look at subjective measures?

Subject: Also objective! Where I am now uses a behavioral approach. A lot of it is subjective and they are looking at if people are really in chronic pain and we might not be able to cure or fix; cannot fix the annular tear, so can they live with it and pain management techniques

and how people are doing. A lot of that is very subjective. We watch people and look at their pain behaviors present. If they are not, how frequent are they, those kinds of things.

Researcher: How do you interact with the other disciplines or the other PT's? It could be around a particular case or around day to day work.

Subject: Like I said, I think I have developed a good rapport with just about everybody that I work with and I can go to them with questions. I think that they can also come to me – feel like I am pretty open.

Researcher: Your expert example, how does he find out what's going on with his patients? A method? What does he do?

Subject: He is very hands on, very communicative with patients, and very perceptive in both those senses, subjective as well as objective measures.

Researcher: How does he interact with folks?

Subject: Very well!

Researcher: Would you say that is a plus for him?

I think that is a real skill that he has.

Researcher: Tell me again, how do you know that you are an expert?

Subject: I guess because there are a certain amount of things that I do that are intuitive.

Someone one else may say how did you think of that and I honestly can't tell you how I came up with that.

Researcher: Pick the next level to discuss. This is your evolution.

Subject: Novice clinician.

Researcher: Were you ever a novice?

Subject: Oh yes!

Researcher: When were you a novice?

Subject: When I was a new grad. I think I was a novice for nine months. I was sitting at a staff meeting for a patient and all of a sudden everything fell into place with a loud click. I look around the room and thought, everybody must have heard that! And no one had! And suddenly everything started to make sense. It was about nine months in my first job.

Researcher: If I were to stand outside the window and watch you work, what did you look like?

Subject: I think I was not the most competent. And I know I was extremely shy especially when I had to speak to physicians. That was an issue. I don't think I was not quite confident in front of patients but it was the dealing with professionals, "they know that I don't really know anything so I am not going to say anything." [laugh] I remember one incident where I had a patient who back in the day when people stayed in overnight for ACL repair surgery and I was pushing at three days to get them out of bed. He finally said you don't know what this feels like. I rolled up my pant leg and told him that after the fourth time in surgery we can talk about pain. So he got up out of bed and walked down the hallway with crutches. So the orthopedist came stomping in a staff meeting, "who is the PT who told off ..?" I raised my hand and thought I was so going to lose my job. He said "you? Ha, ha, ha!" and stomped off.

Researcher: So that was a triumph!

Subject: He thought it was quite humorous!

Researcher: At that point, before the nine months, how did you decide what the best intervention was for your patient?

Subject: It was a lot of trial and error. I was comfortable with a lot of the similar patients I saw. I knew what was standard care and I knew how to assess what was working and not working. I was able to not show inexperience, but I felt as though I was fumbling through, hopefully it did not show like I was fumbling through.

Researcher: How did you decide that patients benefited from your work?

Subject: Pretty much objective measures. A joint replacement could bend more, strength, ROM, all of those things. It was an acute care facility. So it was pretty good and we had to take objective measures. He had to state how far somebody walked, we had to state the level of assistance, ROM available with their knee replacement that kind of thing.

Researcher: Go to the next level.

Subject: The advanced beginner.

Researcher: So you had your epiphany. Were you an advanced beginner when you had your epiphany?

Subject: Yes!

Researcher: Who were you, what were you?

Subject: I was a new grad but not the newest grad on the block. I don't think that I was someone that people went to for advice but I still think that I was holding my own. I was not going for advice as frequently.

Researcher: So as the novice person you did go for advice and then it backed off a bit.

Subject: Right! Actually for the first six months of working, I was a graduate PT, my notes did not have to be co-signed but I had a mentor assigned to me. That was until I could take the exam and then another six weeks until I officially found out that I had passed.

Researcher: Tell me more about this advanced beginner.

Subject: This kind of overlaps with the nine months and taking my licensing exam, found myself answering questions, like reading the question on the exam and recognizing a patient. At that point there was an overlap.

Researcher: So there is overlap in this evolution?

Yes. I do feel that, I still laugh about hearing that click! [laugh]

Researcher: This advanced beginner meeting the patient for the first time?

Subject: I was getting more comfortable and it was much easier for me to talk to nurses, physicians, people I did not know like family members. Especially initially family members who would stay in the room with treatment, I would just want to die! And when I was working two years they said to me that I had been working here long enough and that I needed to take a student. But I did it!

Researcher: That was a particular event!

Subject: Yes.

Researcher: Standing outside the window and watching you work, what did you look like?

Subject: As long as people were not watching me, I did pretty good! I still felt like I was fumbling if somebody was watching. But I again I felt like I did not have to go to people. You always have a patient about which you have to ask somebody, what they think or something like that. But it did not happen very often, and I felt comfortable. And when I did have to do that it was because it was a huge question.

Researcher: Intervention decisions. How did you arrive?

Subject: I still think that I had to go “yes you can do this or that”. I had to figure out in my mind the pros and cons of each, that kind of thing. Not making a checklist to figure out pros and cons but making a mental checklist. You can do this but you have that kind of problem,

you can do that but it is contraindicated because of this. I still had to do mental gymnastics to come to a decision. It did not take as long but I still had to think about it.

Researcher: When a patient benefited from your intervention how did you know?

Subject: Again objective measures.

Researcher: Pick your next level.

Subject: Competent.

Researcher: How did you know that you left the advanced beginner behind?

Subject: Retroactively. I realized that I was not questioning myself as much. I might still be doing the mental gymnastics but it was not taking as long and I was quicker in decisions. I felt more comfortable. I did not mind having a student and I did not mind talking to doctors. I didn't really think much about giving input to nurses or questioning OT's or PT's, any of that kind of stuff. Probably it was asking for advice much, much less. If I did ask for advice, it was a real stuck kind of a problem. I did not mind taking more patients.

Researcher: Watching you through the window?

Subject: I would say I was comfortable.

Researcher: So you made a paradigm shift?

Subject: Yes.

Researcher: Your interaction with your patient for the first time?

Subject: I would say more confident. Initially I would have said "I am from physical therapy" rather than the competent "this is what we are going to do!"

Researcher: What was comfortable about your first interaction?

Subject: I think I was more sure of myself so it kind of flowed from that.

Researcher: Intervention decisions?

Subject: I still catch myself doing the pros and cons, those mental exercises but the answers were coming faster and faster. And I could say that this worked with three other patients with similar issues so let's try this kind of things, without going through as many gymnastics.

Researcher: How did you know your patient benefited from you did?

Subject: That objective thing was beaten into me. Even where I work now and it is more of a behavioral model, in a way it is a change in philosophy for me. After several months I still look for objective things. I know that with chronic pain change will be more on the subjective level but I still look for objectivity.

Researcher: Any identifying event or process that let you know you were competent?

Subject: It was a retrospective thing.

Researcher: So when did you stop and look back?

Subject: It had been a while and I realized and had not asked for – did not really use anybody in an official mentor type capacity. I looked back and said “I have been doing this for a while and it felt comfortable.” No click that time – only the one.

Researcher: The last one is the proficient. Who, what where?

Subject: I still think I maybe had trouble seeing myself as an expert clinician. There is always stuff I know or I don't know. Different patient diagnoses that I had not seen before and different twists on familiar diagnoses, is very different. With this job change I went from seeing pretty basic knees and sprained ankles, familiar things. And I went to chronic pain, which is fairly new to me. It was hard – I still see myself as competent.

Researcher: It sounds as though you have a little work to do with this chronic pain. Are you staying new at this new work a long time? When you went into this new job, where did you

go back to? You are an expert with the general population. When you started with this new, what were you?

Subject: I probably went back to being a competent clinician. I am getting out of that and back to being proficient. There are still in part working on spine because things have changed. I have about 85% spine and I have had to re-immense myself. I feel I am getting back up to speed and it is happening a lot faster than I predicted, as opposed to someone who has not been out as long as me. I am advancing faster.

Researcher: So your advancement is faster than someone who is newer to the profession.

Subject: Yes I think so.

Researcher: If somebody was going from competent to proficient the first time around, time frame worse for lack of terms – evolution wise, first time versus second time around, what is the difference? Qualify faster?

Subject: First time around is over the course of a year or two, and I am getting there in half that time.

Researcher: So this proficient when are working and you are watching them. How do you know they are proficient?

Subject: I think they are comfortable in what they are doing. They are not hesitant. Their work flows. Watching a student doing an evaluation and they are flipping the patient supine to prone and then into side-lying all of sudden you figure out all this stuff and you realize that you can do all these things in prone and then supine. And your transitions are smooth instead of realizing what you forgot. A smooth flow and more down time. Commands are simpler. One of the things I have had to learn in this job is to speak to patients who have never finished high school. I can't say things like 'supine'. You have to realize what people know,

so you say instead ‘on your back’ as opposed to supine without having to think about the wording.

Researcher: First interaction with their patient?

Subject: I think fine and they try to get pretty comfortable. That is pretty smooth getting to know where they are coming from.

Researcher: And your critical piece for your intervention decisions and realizing the benefits.

Subject: The critical thinking piece, I think there is still.. some things are coming intuitively some things I have to think about it. Even if I have to think about it, it is not prolonged, 1, 2,3, pro con. I think there is a little bit of that but it goes faster. I still look for that objective information. With this population I am learning that I have to look at the behavioral piece. It is huge! I have gotten more perceptive at facial expressions, the big picture and secondary gain. More of the big picture kind of thing! Putting all the pieces together! I think that that’s easier and the skills are coming.

Researcher: Determination that the patient has benefited.

Subject: Some of it objective, some of it is behavioral, some of it especially for this population is to realize that yes this is the way it is going to be. What are the goals and are they moving toward achieving them and that they cannot return to an old jog – they have to take a computer class. It is not just objective, it is much more global, behavioral and objective – I can’t leave it alone.

Researcher: What do you think influences someone moving through these levels?

Subject: Experience, self-confidence. I think the right support knowing when it should be given and backed off.

Researcher: Support?

Subject: In terms of a mentor as a new grad. Instead of second guessing every decision someone makes when they are making good ones, give them more independence in an appropriate manner at the appropriate level.

Researcher: Is there a time frame associated with these?

Subject: I don't think so. It varies for everybody. There should not be a minimum time frame. I have met some people who have been out two or three years and they think that they are experts. I have seen a fair amount of that. Just coming up to people after seeing them for one session or coming up to the treating therapist and just second guessing them without having a clue. I have seen a lot of that.

Researcher: What makes somebody do that or gives them the leeway?

Subject: I think it may be too much self-confidence to a fault. I have also seen degree inflation. People tell me not so much that they know more than me but that they don't have to do laundry because they have an entry-level masters.

Researcher: The people who do that where do they fall?

Subject: You usually find at the novice advanced beginner, lower end. I have done a lot of work in different settings. I think I am more global in my thinking than others.

Researcher: Does globalization help?

Subject: Yes. I think it's a pro and a con. If you have done a lot of things, you have got that breadth, but you do not have the depth of seeing lots of certain types of diagnoses.

Researcher: Where in the levels is globalization a pro or con?

Subject: I think that it is a pro when you get down to expert clinician in terms of seeing the big picture and knowing what kind of influence psycho social aspect can have on somebody. It is more of a con for the novice who is getting experience. In order to know how most knees

react after this type of surgery, need to see a critical mass so that you can put the basic pieces together and focus before being able to see the big picture. You see the small picture.

Researcher: You said that you don't think there is a time frame attached to this?

Subject: There is a relative. You should not still be at the novice end when you have been out ten years. I don't think at the end of 1.5 years you should have gone from one stage to another. I don't think that there is a specific cut off. There is overlap and a flow and not a graduation process.

Researcher: When I say productivity, what does it mean or conjure up in your mind?

Subject: Statistics! How many patients are you seeing depending on what kind of facility you are in. Billable units.

Researcher: Does productivity mean different things to the range?

Subject: I think that over-arching it is not a good thing. It has an owe ness over healthcare as a business and you are accountable and you have to justify everything. In terms of productivity if I was a manager, I would expect less from a novice than somebody else at the other end of the spectrum. I think it's going to take more time to do that thinking piece, that critical thinking! You have to figure out those mental gymnastics. That takes longer, churning takes longer. I might have different productivity expectations depending on where somebody is in their career.

Researcher: When I say motivation what does it mean or conjure up?

Subject: Wanting to do your job! And part of that is bettering yourself. Are you motivated to learn new things or are you going to just sit back or ride on the educational status quo. You have to be a self-starter.

Researcher: What does motivation mean to these levels and one's evolution?

Subject: I think motivation gets you from one part to the other. If you are happy where you are and you are a competent clinician, you may feel that you don't have to do anything. RI does not require any CEU's for re-licensure. Some people think that they are fine with the knowledge that they have now. Those people tend to be stuck on this continuum as opposed to people who are more – I don't need to do it legally, but I need to do it professionally. They are motivated to improve themselves. It not only pushes them along but will help them advance in the continuum.

Researcher: Who is going to tell you, or how should you know about these five levels?

Subject: First of all you should know yourself. I may not know the specific levels but if you ask me to come up with a description but not necessarily know where I fall. I think that that is part of job performance evaluation.

Researcher: Where might this have a place?

Subject: This particular – self-assessment. I can see this as part of a clinical ladder for advancement. Or those kinds where you might be an expert at the highest level and you could be used as a mentor, or somebody is a novice I could see it as a clinical – I am not sure if clinical is the right word. I worked in a facility with a tiered system, where the expectation was that as a two or a three you took student or was a mentor.

Researcher: If it has a place in the setting, self-assessment process, how could this be objectified or added up? How are you going to measure it or is there a way to measure it?

Subject: That is hard but you can by knowing where somebody is. Knowing their clinical skills you could pretty much figure it out. How does one approach patients and approach patients? If I am struggling with what to do then I can't help a student. If I can figure it all

out in a reasonable time frame without lots of gymnastics going slowly and that is apparent, that person is ready to serve as a mentor or clinical instructor.

Researcher: Should I be asking these questions?

Subject: Yes, why not. There probably needs to be a better way to quantify in terms of who is ready to serve and in what role. Because I have worked in facilities you automatically get a student and you have been out a year. Is that fair to your student and is that fair to your patients?

Researcher: What do you see or what concept of quantification would be acceptable to you?

Subject: That's a good question. You can quantify things like communication skills, somebody can still be afraid to talk to physicians, nurses and team members. That can be quantified. Yes, you can do it, you look at the big picture, or no you don't. Yes, you have the skills but when you have deficits what does it mean? You can quantify those kinds of things.

Researcher: Am I hearing skills and demonstrated behavior?

Subject: I am also say critical thinking skills and not only physical skills. That can be quantified.

Researcher: Self-assessment – what is the actual task of self assessment?

Subject: I have worked at place that you are not only evaluated by supervisors and sometime peers, but you also did a self assessment. I think that is a way to make sure it's done. I think there are people who do things automatically and some people who don't. I think you need to sit down and take a serious look at how they are doing. If at the time of the formal assessment part of it was a self assessment that makes sure it is done and taken seriously.

There are always going to be people who overrate their self-assessment.

Researcher: So what do we do about them?

Subject: I don't know! I catch myself doing it. I have to say up until last year I was very hard on myself. I was so down on myself about being qualified to do anything. By getting into my current situation, I got better at it.

Researcher: Anything else to add?

Subject: Not that I can think of. The literature has struggled with what is an expert clinician, and I think this is going to add to that and there is no one answer yet.

Subject 111: Expert Physical Therapist

Researcher: I have presented to you an informed consent form and I have obtained your signature?

Subject: That is correct.

Researcher: What is your date of birth?

Subject: August 28th 1957.

Researcher: What is the highest degree that you have earned?

Subject: An Ed.D.

Researcher: And your year of graduation?

Subject: 2006.

Researcher: That college or university that you attended?

Subject: For that degree, Columbia University.

Researcher: And the highest degree that you have earned in the Physical Therapy profession?

Subject: Entry-level PT degree.

Researcher: What year did you graduate?

Subject: 1983.

Researcher: From what institution?

Subject: New York University.

Researcher: Have you earned any certifications or specialist credentials in physical therapy?

Subject: No. We are not speaking of special awards?

Researcher: We could speak of special awards.

Subject: I have an award from the Home Care Association (APTA) back in 2001.

Researcher: What was that for or the context?

Subject: The context was for developing the homecare section's website. Then I also was awarded a PODS scholarship. There are two different levels of PODS – I received pods scholarship I.

Researcher: Could you explain what the acronym PODS means?

Subject: It escapes me; something to do with doctoral studies. We can look it up.

Researcher: Was that given from the APTA?

Subject: Yes it is.

Researcher: How long have you been working in the PT profession itself as a clinician?

Subject: I have worked all 23 years as a clinician.

Researcher: How long have you been working in the physical therapy arena?

Subject: 23 years.

Researcher: You were not a tech, aide or anything like that before?

Subject: Actually two years prior to that, I worked as an aide. I worked in the physical arena in that respect for 25 years.

Researcher: It may be a bit repetitive – what course work have you completed over the last few years, even CEUs'?

Subject: In addition to completing my advanced [academic] doctorate, I have done, including continuing education, courses in the area of manual therapy, and orthopedics.

Researcher: And your advanced doctorate is the transitional DPT?

Subject: No, it is the Ed.D.

Researcher: Can you give an example of an interesting case that you have tackled recently – interesting treatment cases?

Subject: One of the more interesting cases that I think I have had recently has been a patient I saw for upper cervical dysfunction who was misdiagnosed by general practitioner as having an anxiety disorder. Because he presented with a variety of symptoms, which appeared to be anxiety related he was started on anti anxiolytic medication. Upon comprehensive physical exam, it was determined that the patient had dysfunction at the level of C1 and C2 which presented as a variety of upper cervical and facial symptoms. Not commonly thought of is that there is a contribution to the sensory aspect of the trigeminal nerve off C1. That is how the patient had been presenting, particularly the C1 impairment. Once we were able to resolve the soft tissue problems at C1, we were able to mobilize C1 and resolve a good deal, at least intermittently, of his facial symptoms and teach him how to manage his problems. At which point he..., I was no longer following him so I am not sure of the long term outcome of the case. It made for a very interesting.

Researcher: Have you participated in any clinical education or mentoring of junior staff?

Subject: I have done research presentations at national conferences in the past year. That included the American Association of Cardiac and Pulmonary Rehabilitation – presented research at that conference. In terms of mentoring junior staff, I think of that as a yes. More in an informal sense; a day-to-day process. One of our junior staff is now considering going

into a doctoral program. I have been working with that person to sort out the decision-making process and assisting her in how to go about the decision-making as far as the information finding, thinking about where her interests are, not to be too quick and yet not to be too hesitant in making a decision of this nature. That is where I am about now.

Researcher: And how long have you been at Dominican?

Subject: Not quite six months.

Researcher: I would like to dialogue with you a little bit more about your experiences as a physical therapist. Specifically, I would like to discuss the experiences that molded you and how you currently work. The five levels of professional development are meant to give you a framework of the possible stages of your evolution.

Researcher: Your colleague describes you as an expert. Do you agree?

Subject: Yes. Although I suppose at sometimes it is a humbling kind of statement, but if she says so! One sometimes tends to not see oneself in that light. But, I am reminded of what John F. Kennedy once said when he was faced with the Cuban Missile Crisis, something to the effect of that “there is no old grey haired person to turn to for wisdom at this point”, his decision-making was just him and his brother. It is at these times that we realize that “we are it” for a lack of a better way to put it. And that is when you realize that I guess that we have come to a point that we have assumed the position that we have been moving toward as far as expertise in the profession. The generation before us has kind of moved on.

Researcher: Describe your interaction when meeting a patient for the first time?

Subject: I will often introduce myself by my first name. I will never introduce myself as doctor. Invite the patient in to be seen and extend my hand toward them and shake hands with them. I look to make direct eye-contact; look to make them as comfortable physically in

that environment, and look to have some dialogue about why they have come here to be seen by me. Usually, so that there is some clear sense of boundaries as well, I try to accomplish that within a five to ten minute period.

Researcher: Why don't you introduce yourself as doctor?

Subject: It's a sense that I try to want to make the patient feel at ease and that I am not... I think that I am not trying to create some type of hierarchical situation between myself and the patient. I want the patient to be able to communicate to me in as easy a way as possible. If there is going to be any possibility at all of a white coat syndrome having an influence in the situation, I want to minimize that chance of a phenomena occurring. I think that kind of introduction will reduce that kind of stress in that moment.

Researcher: If I stood outside the window of the clinic and watched you work with a patient, what would be taking place? What would you look like?

Subject: I would appear as a good listener and sitting directly across from my patient at my patient's level so that they would not have to strain to make eye contact with me. If there is any kind of movement problem, to be able to contact me visually or other wise, I want to be at some distance for them to be able to do that whether it is vocally as well. I would put them in a comfortable seat. Often times if there is a family member present as well, I won't hesitate to invite the family member in to accompany us. So I give them the option of bringing that family member with and keeping that family member with them for as long or as short a period of time as the patient feels is necessary. If I begin to see that there is perhaps at some point an interference or a lack of necessity for that family member to be there, I strongly suggest that I no longer need their assistance at this point of the examination – we can have them probably wait outside at this point. And then that is how I would proceed.

Researcher: How do you decide what is the best course of action or treatment for that patient?

Subject: It is predominantly based on history and description of the mechanism of injury combined with what it is that is limiting the patient or is irritating the patient's symptoms. That is if there are activities that create an irritation to the patient's physical problems that creates our treatment limitation. I will explore ways through that, around that, over that, under that, for any given patient and that probably becomes the most challenging thing.

Researcher: How do you decide that a patient has benefited from your intervention?

Subject: It is solely by what the patients tell me. If they think they are improving or not improving as opposed to my exclusive objective measures. Even if my objective measures indicate that the patient is getting better, but the patient is telling me "I don't think that things are getting better," something is amiss. There has to be a combination of the two working together, because we can make changes in function which are compensatory and yet symptomatically a patient may not change and so there may be quality of life issues which are still in fact that which we are not altering. It becomes still a problem.

Researcher: As an expert how do you interact with other PT clinicians?

Subject: In a number of different ways! I use humor a lot for one thing and then that gives me an avenue into what people are thinking and doing and it becomes a non-threatening approach. And then I always will express a curiosity as to what people are doing. Not necessarily the why of what they are doing, but just what they are doing. My expressing the interest in what they are doing, and I have always thought and still do, people just love to talk about what they are doing. If you express an interest, they will open up and talk to you and

maybe give you the opportunity to explore the why things. Those are the things we are try to do and then we may be able to have a dialogue about the why.

Researcher: As an expert how do you interact with other disciplines?

Subject: With the difference in other disciplines..., with other disciplines I tend to be a little bit more authoritative and offer a little bit more of a “well this is my expert opinion!” I put on my tie and button down collar approach almost with a thought of this is kind of what people expect. Although it depends on the level of relationship that I have with the individual person from the discipline and the degree to which I think that they have respect for physical therapy, how long I have known them, and where they may be coming from - I tend to move more cautiously than I do with my peers.

Researcher: Think of an expert that you have met. Can you describe them?

Subject: Yes. I can think of a couple of them. One in particular – a little bit more of a authoritative kind of role or model. Their teaching style tends to be more of a lecturer as opposed to someone who shares information. Yet the interesting thing was then as I got to better know the person better, this is how they presented outwardly; as I got to know the person better I realized that was just the outer crust and they were actually much more. They opened the teachable person and became much more open to dialogue about a variety of things as our relationship grew, which was kind of interesting. And this was how I envisioned the person to be as I understood them to be an expert, trying not to pigeon hole.

Researcher: How do you know that you are an expert?

Subject: I think that the expertise thing is one that is not a point that one is looking to reach in the sense that one amasses a level of knowledge. But likening it to something that my first academic administrator said; that is we were trying to instill in them some years ago. “We are

not just trying to teach them, we are trying to teach them a way to learn.” So I think what happens is, you come to a point as an expert that you realize that there is a level of openness that you have to a variety of information and view points that you can envision and see, that before you did not necessarily... you were just kind of approaching that point and now you can see from this perspective, and this perspective and this perspective. So you can envision things from multiple perspectives. The ability to do that qualifies one to be called an expert – the ability to in a sense be eclectic in your thinking.

Researcher: There are four remaining levels. Pick the next level to discuss.

Subject: Let’s go to novice!

Researcher: When were you a novice?

Subject: I think I was a novice when I got out of PT school and I was working at Presbyterian Hospital some 20 plus years ago. I had a number of good mentors back then, but I required people to tell me this is how to think about these things, and this is how to do these things.

Researcher: What events have read you to remember what you were like at that level? You recalled it very quickly.

Subject: I had, what I remember, I think most the skilled supervisory people early in my career who were very skilled in specialized areas. They ended up focusing practice wise in one of those areas; that is what happened. While I don’t necessarily..., I still remember what some of those people said and I can even quote them from time to time, which is interesting.

Researcher: Describe your interaction when first meeting a patient at that level?

Subject: I would introduce myself and say hello to the patient. I would introduce myself as their physical therapist. I always wore a white coat, I always carried a stethoscope and I think my interactions were not very dissimilar on the personal level than they are now. Some of the

ways in which I position myself and consider my position relative to the patient and how I would ask patients to position relative to me has changed. I would not have thought twice about where I would sit relative to the patient and how high or low I was relative to the patient. I would not be thinking about those things back then. Those are the kinds of things that have changed.

Researcher: If I were to stand outside of the window of the clinic and watch you work, what would be taking place? What would you look like at the novice level?

Subject: I may not have actually talked to my patients as much as I do now during either the examination part of the session and/or treatment. I don't think I did as much thinking about things as I do now. I certainly thought about what I was doing but I think I do a lot more about the littler things now. There was more 'mechanicalness' if there is such a word, than I do now, because I thought this is what you did about a problem.

Researcher: How did you decide what was the best course of action or treatment for the patient?

Subject: Based upon information that was provided for me by supervisory level people and/or textbook information; and then in the midst of that experience, I got bored! Yes, I got bored! I knew there was more that could be done. So I started to look. We did not have computers 20 years ago, I thought that somebody could have written something about this. I even remember the set of big maps and I remember one patient, while doing inpatient cardiac rehab, where inpatient cardiac rehab was barely existing. One house medical doctor said to me for some really unstable people who were in bad shape, "don't feel too bad if something happens to Mrs. So and so". What is that supposed to mean? I am supposed to be walking her down the hall way and I am supposed to kill her? So I began to go and look up things and

read things out of Index Medicus and to find at a basic science level what made sense that could be done. And then I enrolled myself in a physiology course. I began to study physiology and from there I ended up pursuing a graduate degree in physiology. The first master's degree was in cell biology and anatomy because I decided that there was more that I could do here. I became very focused on pursuing current information relative to the things that I could do in clinic. The person I was working with in lab at the time was a muscle biologist and he did all this work relevant to muscular dystrophy so he was very interested in what I was doing and I was interested in what he was doing even though he knew nothing about patients and I knew nothing about rats, we could connect like that. It worked but at different levels, and that's how I was able to bring what I was learning from a physiological level to what I was doing on a daily basis. That was applying a lower level of evidence to what I was doing with my patients because there certainly was not anything available as far as controlled studies for a lot of things. So I would look for anything and everything that I could find. How to use electrical stimulation and things on the order, or how passive stretch does make muscle grow – and I found out about this back in the seventies initially. Some of the information that Shirley Sahrman was promoting back early on how it changes length of muscle because it adds sarcomeres to muscles that I had come across years. I was aware of this because of some information that I had dug out.

Researcher: Where did this digging of information take you? To another level?

Subject: It made me dissatisfied with the level of care that I was providing, and second, it took me to pursue a doctorate [academic] after I finished the master's degree. I always felt compelled to continue patient care because I always wanted to do this. That is why I got

involved in this. I had a sense that there would be a disconnect if I was not able to apply what I was learning. That is why I kept the connection.

Researcher: Did it take you to a different level of professional development?

Subject: I think it has. I think what it has taught me to do is question of myself what it is I do, how effective is the thing I do, and then to be willing to change. I tend always to be brought back to one of those things that one of those first supervisor's taught me that I would quote from time to time and an idea that she instilled. I had a student who was experiencing a great deal of difficulty. She was very obstinate. She was having problems. She said to me that learning was difficult and I agreed. It is difficult enough if you want to learn, and if you don't want to learn, it is impossible. Obviously it was her, the student. Needless to say the student was having problems, but you try to ask "do you want to learn?", and sometimes this is what the missing piece is. Is there that desire to go after or change what it is you are doing because it takes effort and it is a hard thing!

Researcher: Do you think willingness to learn and desire generates you through these levels?

What is that makes you the expert, novice, advanced beginner etc. What generated you through these levels or did you skip?

Subject: I think what happens from novice to advanced beginner, one meets and encounters different people who one uses as models that may influence to some degree. But aside from that, I think the willingness and desire to learn is the propulsion and/or the desire for change. Without that there is no advancement. That I think becomes the key ingredient.

Researcher: What were you like as an advanced beginner? We are standing outside the window looking at you. We are interacting with the patient for the first time? What were you like or was it a stage that you ever went through?

Subject: Like a diamond in the rough! I think I got to here even while I was still perhaps very early on in that experience [novice to advanced] back at Presbyterian Hospital.

Researcher: How about the competent person?

Subject: I don't think I was there until I left Presbyterian Hospital. What happened then, the idea of operating abstract – two things helped me. One, I was in graduate school. Two, I was in home care. To be able to work, for the patient's benefit, with nothing! You go into the home care situation and make something out of nothing. I think it forces you to be creative. Two, you are in graduate school where they ask you to build bridges out of match sticks, I think was the other. As I think about, it my first graduate school experience was very different from my second. While I was able to think analytically here, there still was not – I could see this avenue and this avenue. I could not see this and this, and this, and this.

Researcher: So when you decide that you could in terms of the patient, that your intervention benefited the patient – there were less avenues for you to consider?

Subject: Right! I think it was harder for me to be content at that point and with what I was doing. But, I would challenge myself more, I was no where near open to as many levels.

Researcher: So you were not open to these avenues?

Subject: No, I was not open. And I think that's a big difference between the competent and the expert. It is almost like, it might be a bad analogy, some times they give a person a tool at the competent level maybe three or four tools lets say; a hammer, a pliers and a screw driver. In fact they might not have the right size screw driver and pliers and they might need a rubber hammer instead of a claw hammer and this is the thought that comes to mind. This is how I see things and this is some of the difference, I see. Yes, you can get the job done but it can be done a whole lot better.

Researcher: How about the proficient clinician? Who are they and what do they look like?

Who were you and what did you look like?

Subject: This person was for me during the first, I was obviously practicing, during the first few years of teaching [teaching full time for twelve years]. With that, I got exposed thoroughly to the idea of self-assessment. To explain this – to see situations as wholes and then turn to aspects. I was thinking of it in terms of problem based learning. The idea of how the hypothetical deductive reasoning can often times not be. I thought I was there in those first few years where based on my experiences that I already had for 15 or 18 years of practice behind me and I thought I had seen it all. I thought I knew how to do self assessment. I was just starting out doing my doctorate and this idea of forward reasoning kind of became my thinking. Who needed the literature, you could just reason through what the issues were. The literature was a bunch of garbage, you know what is already there. Half the studies are poorly constructed and they don't really tell us much about anything anyway. There was this idea of just reasoning through whatever the issues were at that phase of my career. It was either, this, that or the other thing to come to solutions. And then I realized as I got over the next couple of years passed, that no your reasoning could be deficient and that you needed to consider. Yes, there are deficiencies in the process of hypothetical deductive reasoning, and there is literature that points to that too, so you need to consider the literature in light of that and also relative to experiences. Or else you are just going to consider the two or three avenues that are out there in order to open up all of the possibilities that you could travel down to answer the question that is at hand. So that is what separated the proficient from the expert.

Researcher: Do you think there is a time frame attached to these levels of professional development?

Subject: I think there could be, I have no clue what it is. I had one acquaintance, I still have him. He is an anatomist. He uses the expression he may have even used it here at some point. "As time goes on you see things in pictures and system and multiple approaches, I remember him always saying that. I stay in touch with him and I always thought of him in that light. I know what he meant but we never would talk about how long that takes. We would always agree on that no one seems to get there when they are in school or even shortly after school at least anybody we knew about. Even the students, so we have no idea how long it takes to get to the expert level.

Researcher: Who is going to tell you that are a novice advanced beginner, competent etc., or should anybody tell you?

Subject: I think there should be criteria.

Researcher: There should be some level of measure?

Subject: Yes. There needs to be some yardstick of a sort for the various levels. So that at each of the levels, people can look at them at least for the purpose of knowing are they deficient. Maybe that is a bad thing to say, or do they need improvement. Put it that way.

Researcher: Concretely, what do you envision being this yardstick? Or practically speaking?

Subject: There would have to be a number of things including things such as – everything from communication skills, desire to learn, the ability to interact with others; this would be a minimum of things. I'd say a bare minimum would be those.

Researcher: So who would administer these criteria or yardstick?

Subject: I would say that in the same way the association has put out... A couple of things! One thought would be that the Association [APTA] could put out various levels of, I am not sure if that is ideal or not, could be – because there is nobody in that sense - if modeling is important as an indicator there is no... The idea of self-assessment is important in there. So perhaps there could be some kind of mentoring process that could be involved in that either on a local level or individual departmental level, this kind of thing could happen between I could say staff but colleagues in that way. Between more senior members and more junior members of the profession, it could be a mentoring process. These are the kinds of things that take time to become immersed in, I don't know if one could just sit and become immersed in a 20 minute session. That is an issue.

Researcher: What would you suggest is a time appropriate immersion or understanding could take place?

Subject: I think almost an accountability group or periodic accountability session may be useful. One, accountability is always a good thing! How are you doing with this how are you doing that, how is that going? If you are accountable in an area especially where you have self assessed as one being an area where one needs to develop, a person will put energy into that area. Now the problem would be whether or not there will be the energy to go there but one would not become involved in the process or the people who want to be there would be there.

Researcher: When I say productivity, what does it mean or conjure up for your?

Subject: Bad things! In some respects newer days. In some respects often times there is negative connotation and inverse relationships between productivity and quality. I don't think that there has to be, but, unfortunately, I think there is. I think that that message even from

students are in school, that message gets communicated to them and you start talking to them about productivity and how important it is, these kinds things. How people are going to be over you and watching you. It is a concern in that light and it is unfortunate. Not that they should not be cognizant of it, but perhaps there is a little bit too much of an emphasis sometimes.

Researcher: Does it have anything to do with the five levels? Is there a connection at all? Is there an explanation of productivity at all with any of the five levels?

Subject: Sometimes it almost seems at odds. The novice is unable to be highly productive whereas the expert can figure out ways to be highly productive. There are inverse relationships. I don't know if that is entirely true but that is an initial impression. And in the same way the expert as well as the proficient clinician can figure out ways to be more productive without compromising in quality issues. Whereas the person on the novice end of the scale... That is probably the thing that the expert, even relative to where my own clinical skills are now, that is probably the thing few of the last handful of years that I have been able to figure out more than ever – enhance productivity without a compromise in quality that ten years ago I could not do.

Researcher: Motivation! What does that conjure up or mean?

Subject: Internal! We have this with our exercise science students in goal development and patient relations with the idea that often times, motivation is an internal thing but sometimes. While it is still internal, there is still a need to help stir it and help people figure out what the goals are, what their goals are, what our own goals are. I think that is an important part of what we do to help people sometimes not always. But sometimes some people are very clear about what they want out of PT. Sometimes it ok to help them figure what they want and to

help them to stir the motivation in them. Often times there is a small population that no matter what you do they do, not want to recover and there is some motivation for not recovery whatever it might be, financial. There is a payback for whatever it is.

Researcher: In the arena of our five friends here, taking an understanding of what these five levels are, motivation in terms of these five levels?

Subject: I think there is motivation to, there has been a motivation on my part, to move up this ladder. Now as I look back, I don't know that I was cognizant of it all at the time or while I kept moving toward a particular direction since I got out of PT school had a sense of where I was going or what I wanted to do. Deviated in other direction a little bit but kept moving forward toward expert and found various people who supported this, got discouraged along the way, got delayed, but I think that all of that is part of the process of coming here. A friend of mine says "enjoy the trip." It think that the, one, motivation is akin to desire. You need the desire, you need the motivation but you also need to be able to see not just here but here in order to move throughout each of these phases and it keeps you moving along in that respect in the growth process.

Researcher: Anything else to add?

Subject: I think the self-evaluation process, self-reflective process is incredibly important. But then in light of though, because one's perception you sort of wonder about them, the need to do that in the midst of valid criticism relevant to the group process and figuring out. Then I think that needs to be relevant to self and to group and need to figure out the check and am I moving in the right direction, these kinds of things. I don't think there is enough emphasis overall on that process and there has not been in the almost 25 years I have been doing this. For the first 15 to 18 years I could look back think that I was not exposed to it

enough and I think that if I was exposed to it to the degree that I was earlier on, I think it would have expedited things and you can't under estimate it's importance. Researcher:

Thank you.

Subject 112: New DPT

Researcher: You have read the statement of informed consent and I have received your signature?

Subject: Yes.

Researcher: And you have in front of you the five levels of professional development?

Subject: Yes.

Researcher: What is your date of birth?

Subject: May 6th 1979.

Researcher: Your highest PT degree earned?

Subject: Transitional DPT. I had a master's and went back. I did a post professional doctorate.

Researcher: Where did you earn your doctorate?

Subject: The University of Medicine and Dentistry of New Jersey.

Researcher: What year?

Subject: 2004.

Researcher: And where did you earn your masters degree?

Subject: The same (UMDNJ) in 2001.

Researcher: Location?

Subject: Newark.

Researcher: Do you have any credentials or specialist certifications that you have earned?

Subject: Yes. I have a CSCS certified strength and conditioning specialist by the national strength and conditioning association.

Researcher: What year did you earn that?

Subject: 1998. I am also a certified athletic trainer from the American Council on Exercise, American Congress of Sports Medicine.

Researcher: Did you earn those in the same time frame?

Subject: No, earlier than that; about five years before that.

Researcher: The amount of time that you have been working as a physical therapist?

Subject: Over five years.

Researcher: The amount of time that you have been working not only in physical therapy but in the exercise arena?

Subject: Exercise arena, probably since 1993-94, about twelve or thirteen years

Researcher: And the time working in the PT outpatient arena?

Subject: Does that include my affiliation? My first affil was in PT school – '99 and 2000.

Researcher: Have you attended or completed any course work over the last few years?

Subject: CEU; a bunch.

Researcher: What was the orientation of the courses?

Subject: All pretty much orthopedic. Couple of shoulder courses, knee courses, soft tissue and position course, McKenzie course, Mulligan course.

Researcher: How many did you take a year?

Subject: About two a year.

Researcher: Have you participated in any kind of research?

Subject: Not since I graduated PT school. Part of our master's, I was involved in one research project.

Researcher: Have you participated in PT clinical education, college teaching or mentoring of junior staff?

Subject: Yes – I had one student shared with another employee. We had a student here.

Researcher: Can you give an example of an interesting case that you have tackled recently?

Subject: Good question, I am trying to think! One that comes to mind, we see a lot of patients with knee pathologies. This is the first one that I have seen have a meniscal allograft transplantation. It was a fairly new procedure that was interesting because there were no rehabilitation guidelines made, no research or protocols to follow. So I treated just based on objective and subjective findings and parameters. We worked together based on the doctor and patient response.

Researcher: Your colleagues describe you as an expert. [Laugh] Do you agree, disagree, where do you fall then?

Subject: I would say that I am definitely proficient. Some areas I would classify myself as an expert. There is so much to know, and learn in the field of physical therapy, there is no way I would say that I know think I know every thing or close to everything factual wise and manual the gambit. But in terms of therapeutic exercise based on my whole exercise background, I would say that I am an expert. But in terms of manual skills, different types of treatment – there is always room to grow and learn.

Researcher: You call yourself?

Subject: It is a combination. It depends on the patient. Not to make things complicated, I would say that I fall in between, proficient and expert.

Researcher: When you first interact with a patient, what are you like, what do you do?

Subject: During the initial evaluation, I like to introduce myself, be cordial, smile, make them relax, let them feel comfortable. Then I explain to them what I am going to do in terms of evaluation and go over obviously what happened; go over the doctor's prescription and or plan of action. I go ahead with objective measurements and treatment, definitely a home exercise program, a lot of education and explaining with respect to several weeks of therapy, prognosis. I try to put myself in their shoes and try to understand they are not just patients but that they have a life outside of therapy. The novice tends to get off track. They are so involved in textbooks – it's a knee and I have to do every special test there is, rigid and almost too thorough and they forget the whole big picture. The patient!

Researcher: How do you decide the best course of action or treatment for your patient?

Strategies?

Subject: A number things – one is to listen to the patient and hear what the primary complaints, what their goals are and what they want to get out of therapy. Then obviously I look at them, how they present and what I see in terms of objective measurements. Based on their goals and what I see and what I know the regularly course of action is and prognosis, treatment, I tailor it to that patient and try to accomplish their goals in a realistic time frame and go from there.

Researcher: How do recognize that the patient has benefited?

Subject: In terms of subjective and objective findings, if the pain has decreased, if they are stronger, if their ROM has improved, if their swelling has gone down. In terms of function if

they are able to do more in their daily lives, the most important thing is function. If they are more functional with less pain, then the other things being taken care of in terms of decreased pain increased ROM and strength, they will follow suite.

Researcher: How do you interact with other clinicians especially with a shared with therapy role? Interaction quality?

Subject: In the facility we may see the same patients to meet scheduling needs. We need to communicate with each other. If I see a patient of one of the other PT after 10 visits and they are on my schedule. We share information and what is important. I try not on the first time I see a patient and someone else has been following for several weeks, I try to follow the course of treatment of the therapist. If I find something needs to be progressed or changed I communicate that to the therapist. I try not to step on any toes so to speak. If you see something that a therapist might have missed, I discuss it with the therapist first instead of making major change in treatment, because that puts the patient in a situation where they might feel uncomfortable, surprised, not trust the other therapist or not trust you. I try to make the therapist make the patient feel as comfortable as possible. I talk to the treating therapist first before I think I might need to make a change. It does not happen often.

Researcher: How do you get on with the physicians?

Subject: We treat their patients, we send a copy of the evaluation over. If they have any problems with the diagnosis or prescription in terms of what they want. Obviously you call to discuss with them. If the patient is not progressing as planned or they are not compliant or a complication has evolved we contact the physician. Prior to the patients follow up visit with the physician we send a progress report.

Researcher: When you were a novice what were you like? [Laugh]

Subject: You get a diagnosis before you meet the patient - you know it is a knee and you look up every special test for the knee. In terms of objective measures and protocols that are post surgical, any diagnosis, and they have concrete lists of things of what to cover. In terms of writing my initial evaluation I would do it on separate pieces of paper, make little notes and then transfer on it onto the actual evaluation sheet. It would make me more comfortable and confident that I had everything in order and everything covered. As I got more experience I got it right on the initial evaluation and not even think twice.

Researcher: If I were to stand outside of the window and watch you as the novice work, what did you look like?

Subject: I think I was very focused, but I would hone in on a specific body part. I had a huge concentration on the diagnosis. I was not aware of the big picture. My personality is similar to what it is now, but I did not really see the patient as a human being, as I do now. I saw them more as a patient. I was in a zone rather than communicating human being to human being.

Researcher: When were you an advanced beginner?

Subject: An advanced beginner – probably six months after I started, six months to the first year of experience.

Researcher: How different were you from the novice? How did you know that you had become the advanced beginner?

Subject: I had seen repetitive diagnoses come. I saw some of my outcomes and what needed to be changed. Therapists that I was working with at the time and observed and learned more techniques and ways of treatment. I had little bit more familiarity of how to treat certain diagnoses. I started to learn as I communicated with patients, I also had kids at home and a

job. [Laugh] Now I understand why they don't do their home exercise program. Things started clicking.

Researcher: Who is the competent clinician? Where were you then? Where were you stagewise, got your act together and took care of your patients?

Subject: There is a learning and development stage where after seeing similar diagnoses of certain conditions and seeing that people are getting better when I did this and some did not when I did the other. After taking some more courses and observing my other colleagues and then just looking things up and just a continuous learning process. When most of my patients who listened to what I told them are getting better, I realized that I was competent. You can't get rid of everyone's pain, no, no.

Researcher: Who is the expert?

Subject: The expert would be someone who knows almost everything there is to know on a treatment level where it just comes second nature to them where they don't have to look anything or think about what a muscle is. They don't have to worry about the scientific principles. They see a patient and know how to progress them and how to get them back to function without doing much analysis or much thinking. It is just ingrained in them and they know what to do, hone in on the specific of what they have to do, and it gets done.

Researcher: Is there a time line associated with these?

Subject: Obviously every person is different in terms of how they progress through the different stages. Some people might take them a lot longer than others. You need the experience to be able to go through the levels. Even if you studied every minute of your life and in PT school, you still would not be able to, even if you were a genius and studied everything, you could not become an expert your first year out of graduate school.

Researcher: Do you think the levels exist?

Subject: I do. I think they do exist. I really do. Some people might skip a level, novice to competent. Everyone has to start as novice even if it is for one day. They can't know every situation and know what to do in every situation. That is why I am not an expert. There may be some situations in which I might be baffled or not know. In terms of differential diagnoses, you can never be 100% correct that you are going down the right treatment path.

Researcher: If I said productivity to you what does it mean? [Laugh]

Subject: In terms of patient care, being as efficient as possible in terms of when you first see your patient to getting them back to function. The outcome to get them there in the least amount of time making sure that you are covering your bases and basic treatment, meeting their goals but getting back to function as quickly as possible.

Researcher: Does productivity change or mean the same for the levels?

Subject: The other part of the productivity as director, I have to worry about the amount of patient, length of stay and things like that. The novice or someone who does not really run a clinic does not see that. In terms of productivity in terms of patient care, I don't know if he or she in their minds is thinking, that an ACL reconstruction should be better in sixteen visits. They are hoping to do no harm decrease pain increase ROM, getting them stronger and off to crutches. They are not worrying about anything except to get them back to football in four months. The expert or proficient clinician is thinking that if this person does not get back to their sport or basic function in sixteen weeks, I have failed. In your mind you have basic sequential goals and general ideas of where someone should be. Everyone is different in terms of age, fitness and other comorbidities. You are more intuitive to productivity as you go down the five stages.

Researcher: Motivation what does that conjure up?

Subject: In terms of patient therapist relationship, it is our job and goal to motivate the patient to take control of their condition by doing their exercise coming and enjoying their therapy, not being afraid to try and do things and be motivated to get better. In terms of being a director, I have to motivate my staff. You have to worry about that. There is working as a team and motivating each other with the goal of everyone being wanting to come to work and wanting your patients to come. Some patients want to come, some are depressed, some are worried about their injury and new condition. Some patients experience a fear avoidance type thing. It is not easy. Again, I think it goes the line. Motivation becomes more and more of a goal and increases in importance and we getting better at doing it as compared to a novice or advanced beginner.

Researcher: Should I be asking these questions? Are they valid?

Subject: I think they are valid!

Researcher: Who should tell you if it became a required process or should anybody tell you?

Subject: If you ask someone where do you think I lie I think that would be good from friends, colleagues and patients. If you have a boss in maybe in a review ask where you stand in the five stages.

Researcher: Can this be measured or should it be measured?

Subject: I think it could be measured if underneath each stage there is "X" amount of criteria that need to be met, assign a point value and then you add them up. You could have a list ten, one hundred and fifty, or one hundred attributes and then you can add them all up and you are at this level.

Researcher: Would this be a good thing or a bad thing?

Subject: I mean in terms of, if a clinician want to improve themselves, if they want to be the best clinician they could be or if they are curious to see how they compare to others then maybe people would want to know. Am I competent, proficient. As I was saying before if there was only novice and expert , there is a lot of grey area between. I don't think I am expert, but I do not think that I am a novice either.

Researcher: Anything else?

Subject: No I think that is it.

Subject 201: New DPT

Researcher: You have read through the general items of the questionnaire and the five levels of profession.

Subject: Yes.

Researcher: I have had you read through the informed consent and have your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: December 4th 1975.

Researcher: The highest PT degree that you have earned?

Subject: Doctor of physical therapy

Researcher: Date of graduation?

Subject: May 2006.

Researcher: The college or university that you attended?

Subject: State University of Buffalo.

Researcher: Have you received any credentials or certifications, specialist credentials

Subject: I received a certification from Maitland.

Researcher: And what year was that?

Subject: 2007.

Researcher: What was the certification level?

Subject: MAP II. It was based on spine mobilization.

Researcher: What does that certification allow you to do?

Subject: You have to do several more courses, to get manual therapist certification, for joint mobilization. You have to attend three more continuing education courses. I have the basic level. It says certification but it is more finishing the courses, it was three days.

Researcher: You are about half way toward the complete certification

Subject: I would you say one third.

Researcher: How long have you been working in the physical therapy profession itself?

Subject: About seven months.

Researcher: The amount of time spent in the OP arena?

Subject: Six months.

Researcher: Were you a tech or did you have physical therapy experience before going to school?

Subject: No.

Researcher: Have you done any course work other than your MAP in the last six months, any other courses?

Subject: No that was the first course I attended.

Researcher: Have you participated in any clinical education, college teaching or mentoring of any staff yet?

Subject: No. I have a student coming in October, 2007, first student.

Researcher: DPT student?

Subject: I am not sure. He is from New York Medical College. Yes DPT.

Researcher: Can you give me an example of an interesting, complex case that you had on outpatients?

Subject: I had a patient diagnosed with a vestibular dysfunction. That was the first vestibular patient that I had and I had no experience [of this kind] during my clinical affiliations. And it was pretty complicated. I tried to think about the patient case. When I would go home, I went back to the books and tried to read up on treatment options, assessment and stuff like that. We also have a therapist who has had experience with vestibular dysfunction. I asked her for suggestions. That is how I approached it.

Researcher: Take a look at the five levels of professional development. Apply one of those levels of professional development to your current professional status? Where are you?

Subject: Novice! The most biggest thing is that I still don't have much experience with a lot of different patients. This hospital, we see a lot of elderly patients, a lot of patients with arthritis problems, total hip patients and total knee etc. I really have not seen a lot of the young population – ACL's, like that. I really have not had a chance to see that.

Researcher: So that expansion of the type of cases. You have seen a nice general population of the elderly and their issues.

Subject: Not too much of the younger generation.

Researcher: So you feel as though that makes you more of the novice.

Subject: Yes I will say that will be more of a novice if I see those [young] type of patients now. Cause I really have not had a change to see them a lot those kinds of patients. Probably

I would have to go back and seek some kind of resource instead of going right at it. Cause right now if I see an arthritic patient I would probably know what I am doing. If I see ACL repair, and I saw one or two, that is not enough.

Researcher: So then are you really a novice? Still?

Subject: Yes I think I am still a novice. I think I should have more experiences and more cases to work on.

Researcher: When you interact with a patient for the first time or you are meeting a patient for the first time, what are you like? What do you?

Subject: Just like any other clinician, I introduce myself. I ask them general question about their history, their complaints of pain. I mean - nothing special. I'm not trying to like them laugh or anything. I think I am just trying to get directly to the problem. I am not sure if that is good or not, but that is how I approach. I think it is really depending on the patient. Based on the patient! If the patient is really in pain or if I see that they are not the type of guy who would not like to hear about anything else but the problem, I just go with the problem – just talk about their problem. If the patient is more relaxed, I would probably ask them some other question about other than the problem.

Researcher: If I were to stand outside the window and watch you work in the OP clinic, what would you look like? Can you describe what you look like? How do you work if I was to look at you when you interact with that patient in an initial examination?

Subject: So if you are outside the window, so what do I look like you?

Researcher: In comparison to the other people in the gym - what interaction, what movement, what timing? What would you do or have if I was to stand and watch you?

Subject: Treating patient?

Researcher: That first patient, that interaction! You said that some patients are different, some people want that interaction straight to the point, some people are a little more friendly so you spend some extra time with them. So now you are going proceed with examination and continue to talk to the patient, where do you position yourself? Are you sitting down or are you standing next to them?

Subject: I am sitting down in the front at eye level.

Researcher: How much time do you devote to talking to them before you place your hands on them?

Subject: It really depends upon the patient and depending on the cases. I spend about ten to fifteen minutes and if I think that the case is more complicated I probably spend about twenty minutes. It also is based on the patient schedule. In outpatients, we schedule for initial evals thirty minutes. But sometimes the patient comes in late, stuff like that, and I have to go back and forth, patient to patient. In that case I do more talking while I am doing the exam. It really depends on the situation.

Researcher: So sometimes you will dialogue a little at first or you may dialogue during the exam?

Subject: Yes.

Researcher: How do you decide what is the best course of action of treatment for your patient?

Subject: How do I decide? Depending on their symptom, stage of the injury, for example if they are in a lot of pain, I would do a lot of modalities to relax them down instead of giving them any exercises. Sometimes I copy some of the other experienced clinicians, I see what they do. Some times I ask them questions “what do you think. My patient is this case, what

would you suggest?" If I am really stuck! Sometimes I go back to the books or the internet, the evidence based research. Talk to my supervisor, "I have this patient, what would you think about my first treatment option?"

Researcher: You use your resources and go back to texts, talk to the clinicians, talk to your colleagues. How do you decide that your patient has benefited from your intervention?

Subject: By asking the patient, "how do you feel?" Based on their symptom improvement and if they feel better and less pain, increase ROM, increased strength , that's how you tell your treatment is working.

Researcher: How do you interact with other PT or other disciplines? How do they help you with your job? How do you interface with them?

Subject: If I have any problems I just go and talk to them.

Researcher: Is it often?

Subject: Not really! Before I thought it would happen a lot because in school you learn about the importance of interdisciplinary work. In real life, it is really hard. This is very busy.

Researcher: In school they taught you about the importance of interdisciplinary actions.

Subject: In the real life the working situation is really to interact. You have to do it because it is really necessary.

Researcher: How do you go about it? How do you contact people, the other disciplines? Call on the phone?

Subject: Call on the phone, leave a message. Or send a progress note with the patient. I usually fax a lot to the doctor's office when the patient has an appointment to see the doctor. That's basically how I choose to interact.

Researcher: Are there any identifiers or characteristics that let you know you are a novice?

Subject: Novice is more... the good thing about novice is that you are really not stuck into one way. You haven't really been exposed to a lot of different problems so you are really kind of open. You really don't stick to one way and I am not really sticking to one way, there are always other options even for the same problem. It depends on their age, their history of injury... that's what I think.

Researcher: Let's go on to advanced beginner. Can you give me an example of someone who is an advanced beginner. How do you know that particular person is an advanced beginner? What are they like? How do they interact with the patient? And If you were standing outside and watching them work, how would you decide that no, that person is not a novice anymore – that's an advanced beginner.

Subject: By not using goniometry!

Researcher: They can eyeball?

Subject: Yes.

Researcher: Why can they eyeball?

Subject: Because they have seen a lot! For example they don't have to really test everything to find out their patient's ability.

Researcher: How do you think the advanced beginner decides on the best course of action for treatment? Any different than you?

Subject: Not really! I think they still go on clinical studies to find out what is really only. They also talk to other clinicians about their choice. They still use resources.

Researcher: How do they decide that their course of treatment has been beneficial to the patient?

Subject: Pretty much the same. They ask the patient. They see their patient's performance, their tolerance level, those steps of improvement. That's how they decide if their treatment is really working. If the patient does not progress, the patient gets worse, they complain of more pain, they throw out or decrease the intensity level of the treatment.

Researcher: Do you think the advanced beginner interfaces with the other disciplines or the other PT's differently? Is there a difference?

Subject: For advanced beginner I guess they are more... approach more easily than novice. The novice they are kind of nervous sometimes. The novice, they have not really had any experience.

Researcher: How do you get from novice to advanced beginner? Why do you get there?

Subject: By treating a lot of different types of patient and different types of patient personality! I think personality, you have to really count on that because even if you are dealing with the same problem. Sometimes the personality plays a big role in terms of their progression and compliance as well.

Researcher: Now tell me who the competent clinician is? Do you know anybody who is a competent that you can describe how they work with you and work with patients?

Subject: Can you briefly explain the competent clinician?

Researcher: No!

Subject: One sentence?

Researcher: I can't influence you. Everyone knows what I think. I want to know what you think. Have you seen anybody like that?

Subject: [Long pause] Probably. Yes, I do.

Researcher: How did you know who is the competent physical therapist?

Subject: [Long pause] I don't really see them now, but I think it is really a person who is a clinical instructor when I was studying. My clinical instructor is an example of a competent clinician. I could tell because of the difference in the setting of the goals between novice and competent. I think that is the biggest difference – setting of the goals.

Researcher: How did they act in the clinic? If you can think of your clinical instructor when they treated a patient! Because I asked you about the interesting or complex case. How does the clinical instructor, who is your competent person, how would they approach that patient?

Subject: For the complex patient?

Researcher: You told me you were scared!

Subject: They definitely feel comfortable, more confident. I think they know what to do for the first place to make those patients trust them, trust the physical therapist.

Researcher: What did the clinical instructor do to make the patients trust them?

Subject: By making them I guess comfortable, educating them. Tell them what is going to happen.

Researcher: Were they better at educating than you? The clinical instructor better at education than you?

Subject: Yes.

Researcher: How? Did they say the right things, were they quicker?

Subject: They are quicker, they are more articulate. They explain better an easier way for the patient to understand. Like not using medical terms too much.

Researcher: Now when you think of clinical instructor/competent person working, what did he/she look like? If I am standing outside the window watching you again and you are working and your clinical instructor is working, what is the difference?

Subject: The patient's compliance, the patient's tolerance, the patient's face [laugh]

Researcher: They smile at them and not you?

Subject: [Laugh] Yes. Handling the patients the right way, safely!

Researcher: And is it easier for them; is it quicker for them? What is it about the safety and ease of handling?

Subject: I think both are easier and quicker!

Researcher: How does the competent person or your clinical instructor interact? How did he/she decide on his/her choice of treatment for the patient? And then how did he/she know that his/her treatment benefited the patient? The start and the finish?

Subject: They use a lot of assessment. For example for balance they use a lot Tinetti, Berg Balance instead of just getting subjective statements. They use the subjective statements as well, but they use all of those assessment tools like functional scale.

Researcher: And you don't?

Subject: I used them sometimes for just my clinical instructor, but she used them a lot back then. I think she still uses them a lot. [Laugh]

Researcher: How does the clinical instructor come to the conclusion that the patient has benefited? What does he/she do or how does he/she think?

Subject: I really think that the patient has improved and that the patient has met the goal.

Researcher: Do they just know?

Subject: No! They do some functional tests. For example, it really depending on the problem. The patient has a problem and let's say they come in for initial evaluation. The clinical instructor asks what kind of issues they are having or what is it that they can't do anymore. They establish the problem or was there an activity that they wanted to go back to? They use

those kinds of functional things to see if the patient is really ready to go back [to what they were doing].

Researcher: So you see the clinical instructor as being really functional?

Subject: Yes, they become more functional. They do look at the measurement but they are more functionally based.

Researcher: Now let's go to the proficient but I am making you think of the evolution and what proficient looks like when you see them. What makes them go forward? Give me an example of a proficient person?

Subject: [Long pause] A supervisor. Clinical supervisor.

Researcher: For clarification, what is clinical supervisor, what does he/she do? What are some of the responsibilities?

Subject: They make sure that the novice are doing what they are supposed to be doing. They keep track of you. If something is not done, or if he or she thinks that there is a better idea, they don't tell you, they just kind of push you in a nice way 'what do you think about this? You should...' They will probably tell you of their experiences.

Researcher: And if the clinical supervisor was now to approach a patient and treat a patient, how is their approach?

Subject: They use the aide! How do they approach?

Researcher: You know the clinical supervisor. They keep you in line and you listen to them. Why do you listen to them? Why do you respect them?

Subject: Because they definitely have more experience.

Researcher: How does their experience show? You see the clinical supervisor working and they re-direct you communicating nicely. Why do you believe this supervisor? How do you know that they are not an idiot?

Subject: I think if the clinical supervisor is an idiot, they would probably be removed from their place by now.

Researcher: A clinical supervisor according to you is somebody who redirects you, somebody whom you listen to and say maybe I would try this. Why is it that you believe it? What is it about his/her handling and approach with the patient that you see and say ok, I know what he or she means?

Subject: I guess I see them treating the patient and see how their patient reacts with treatment option. We are working in the same place. You not only see your patient but we talk to the other patients too. That is the biggest reason.

Researcher: Do they treat any differently than you?

Subject: [Long pause] Yes. Cause they have a lot of experiences. I see them ...for example if they see a rotator cuff repair from surgeons. And since they have been treating those patients from that surgeon a lot of times, they kind of know what to avoid, a lot of the surgeons have different protocols.

Researcher: The proficient is the clinical supervisor. I am trying to establish with you what does he/she look like, what do they sound like? Look good, sound good and on top of everything else, he/she is able to come over and see you, re-direct you just by looking at you. So I say ok you are looking at him/her. You describe for me who that clinical supervisor is? What is his/her handling like?

Subject: They are good with their hands, and they are better instructors to the patient. At the same time they, are teaching us; therefore, they are better educators of the patient and they are asking questions that I have not even thought about. Key questions that I would think are very good questions that I did not think, they were able to think of in good detail.

Researcher: How does the proficient, clinical supervisor, interact with the staff and the other disciplines?

Subject: They talk on the phone. They write the progress note. From my experience, based on the clinical supervisor, if the patient does not progress, they get the prescription revised if the patients status does not change, get better or more active. They call the doctor to say that it does not work.

Researcher: And you don't do that?

Subject: I do, but I should do it more.

Researcher: Is he/she very forthright?

Subject: They are straightforward! All of the therapists have been working a lot with the doctors. They get patient referrals from the docs and they know how to respond. They are more comfortable with the physicians, and they approach. I did talk to some of the physicians, but I have no idea how they like things done.

Researcher: You don't know who they are yet?

Subject: No too much. I have not seen them face to face yet. But I have talked via phone.

Researcher: Who is the expert PT?

Subject: I think the expert PT is the clinician who is conducting classes for continuing education. I think that is what the expert is.

Researcher: When you went on your course, who was the expert at your course?

Subject: The instructor.

Researcher: What did he/she look like? How did he/she conduct himself/herself?

Subject: They are very comfortable with the patient. The handling... Expert clinicians they have, they really have a lot of knowledge about what they are looking for. Sometimes they already know by looking at the patient's face, how they walk, how they move their body, their positioning. They know by the patient listing their symptoms. They put their hands on.

Researcher: Just by using his/her eyes he/she knows?

Subject: Not all of them. They get the idea not, they are not going to be able to tell definitely that they are wrong, but they know what kind of exam he or she is going to do before going to the other steps.

Researcher: Are the expert's hands or steps like yours?

Subject: No, they are much more direct, focused. What to do first... They know what to do to rule out other problems. Sometime the therapists try to provoke symptoms to rule out the other problems. They narrow it down to the original problem.

Researcher: How do you think the expert interacts with others? Your ideas are within the continuing education course. How does the expert interact with other people, in the course, with other disciplines?

Subject: They ask us about the experience we have. What would your approach or first treatment option be? How do you assess? They ask us questions. Then they explain.

Researcher: Do you expect the expert to be working in the clinic? What kind of clinical work do you think the expert does – his/her hands are good?

Subject: They should work in the clinic. Even though you are an expert clinician, you can't really help all the patients. They know... if the physician writes a prescription for PT, they

already know by doing assessment. Instead of doing two or three weeks, they do two or three sessions and they recognize some of the other stuff going on other than in the prescription.

Researcher: The expert is able to see exactly what is going on that quickly?

Subject: Yes within two or three treatment sessions.

Researcher: Whereas with you, it would be longer?

Subject: Yes, it would or maybe I would not even know. [Laugh] They catch it more quickly.

They are more directly involved – focused. They don't waste any time. I think that is what the expert clinician means to me. The master of physical therapy.

Researcher: How do you get from the novice to expert? How do you get through these stages? What activities do you think get you from the novice to expert? Events? Does the clinician do something? Is there a recognition that you have gotten to the next step?

Subject: I think you have to expose yourself to a lot of different patients, different cases. And also you have to study, keep studying and obtaining your knowledge; attending clinical education. Work in a different setting; working with a lot of different personalities. All of those factors have to come in. Time! Time and effort!

Researcher: Do you think that there is a time assigned to each of these levels?

Subject: No!

Researcher: When you say no time assigned?

Subject: What I think, let's say you have been a therapist for ten or fifteen years; that does not mean that you automatically become a proficient or expert clinician. You have got to work your way through to get there. You have to have students, you have to have some other continuing education. And I think that you have to become active in our profession to really

become an expert. It is not just time – ok you have been working for ten or fifteen years so you are proficient or expert.

Researcher: So there are other things than time?

Subject: Yes, there are other things than time.

Researcher: But it seems to me that it is crucial that time can get you to competent. You talked about how active in the profession one must be for expert and the proficient level. So how active in the profession for the others?

Subject: I think that time can get you to the advanced beginner but the rest you have to work on. Maybe part way to competent!

Researcher: “Active in the profession” to be solid in the competent?

Subject: Yes!

Researcher: When you say active in the profession – CEU’s, student, what else?

Subject: CEU’s, student, self-evaluation.

Researcher: Reflection?

Subject: Yes!

Researcher: Do you think that these five levels exist in physical therapy?

Subject: Yes!

Researcher: How would someone know that he/she is at a particular level? Should anybody tell that person?

Subject: Not to the person. Maybe other staff. Not if he or she is an expert, maybe the novice.

Researcher: Should it be a formal process? If it exists and is important?

Subject: I think it is important, written and not really public. Maybe given by your supervisor at the six months evaluation; you are not going to directly know that you are novice or

expert. You should look at your self-evaluation and you know where you are and recognize that you might be good at certain stuff or weak. You know what to work on and where to go.

Researcher: You should not be assigned a level, but the evaluation should be comprehensive enough so you know?

Subject: It should be enough of a tool. I think that is very important.

Researcher: The question is how you measure. You can measure these levels by evaluation!

Subject: Yes, evaluation!

Researcher: Anything else? How else can your work be indicated?

Subject: Patient performance – outcomes.

Researcher: When I say productivity, what does that mean?

Subject: Efficiency!

Researcher: Is there a difference in productivity for each of the levels?

Subject: Oh yes! I think definitely that proficient and expert are much more efficient in treating the patients. It seems like they can bring out the outcomes quicker except the surgical cases. Except the people who come with headaches or cervical discomfort. They are more quicker with the treatments, they come up with a better outcome quicker. The first three may come with a good outcome too but they will take a longer time.

Researcher: When I say motivation, what does that bring to mind?

Subject: Motivation! Motivated to make the patient better! Make the patient happy!

Researcher: Is there a difference in motivation in any of these levels?

Subject: No, I think we have to have the same motivation! Novice might have to have more. More energetic because they are fresh out of school!

Researcher: Do you think I should be asking these kinds of questions? For research or to impact professionalism?

Subject: Yes, because it makes me think there is a different level among the physical therapy profession.

Researcher: You are careful in how the level is examined and discussed!

Subject: Oh yes!

Researcher: Anything else to offer?

Subject: No, this is ok!

Researcher: Thank you!

Subject: No problem!

Subject 202: New DPT

Researcher: You have read the items levels of professional development?

Subject: Yes.

Researcher: You have read the consent form and I have received your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: June 26th 1978

Researcher: Your highest PT degree?

Subject: Doctor of Physical Therapy.

Researcher: Year of graduation?

Subject: 2004.

Researcher: The College or University that you attended?

Subject: Simmons College.

Researcher: Any specialist or certifications of any kind that you have?

Subject: Certified strength and conditioning specialist.

Researcher: And when did you earn that?

Subject: 2000.

Researcher: How much time have you worked in the Physical therapy profession?

Subject: Three years.

Researcher: And the amount of time that you have spent working in the outpatient arena?

Subject: Three years.

Researcher: And have you had any other exposure to physical therapy profession at any other time, like PT tech?

Subject: I was a PT aide.

Researcher: For how long?

Subject: Two years.

Researcher: Just prior to entering the profession?

Subject: 1998-2000.

Researcher: Have you completed any course work over the last couple of years, CEU's or any special courses that you have taken?

Subject: Yes.

Researcher: And what was their orientation?

Subject: Sports Medicine.

Researcher: How many? A whole lot or just a few on average per year?

Subject: Five.

Researcher: Have you participated in any clinical education, student mentoring, junior staff mentoring?

Subject: I have been a CI for PT students.

Researcher: How many?

Subject: One. Starting my second next week.

Researcher: Any college teaching or labs like anything like that you have done?

Subject: No.

Researcher: Can you tell me about an interesting case that you have tackled recently?

Subject: I had a 14 year old pitcher with complete avulsion of the medial epicondyle. Extreme form of literally his elbow we needed to get back to throwing at pre injury velocity. A tough case but a very interesting one!

Researcher: Can you tell me what made it tough for you?

Subject: Difficult, because it was complex. Not only did have a pretty serious local tissue injury but there was the avulsed of the medial epicondyle. That was actually healing relatively well but he was having difficulty when he went back to throwing. He continued to have elbow pain despite the fact that it was relatively well healed. So we really had to look beyond where the elbow was and go far down the kinetic chain and identify really where the problem was coming from. It had to do with his complete lack of core stability, and he was really not even able to function even at the basic level. I was able to note it early in the exam, but we tried to integrate it into the throwing motion early and it really was not successful despite being able to identify. We had to pull it back and go basic, basic core stability stuff not even related to the throwing. Once we did that we were able to build him up and he was able to fix the stability problem, at fourteen. I was able to identify it, but at first try I was not.

It was right but he was just so unable to initiate any stabilizing muscles, his arm would lag and drop putting all that stress on the medial epicondyle.

Researcher: Take a look at the five levels of professional development. Where do you see yourself and why?

Subject: I see myself as a proficient clinician. Just even in that example I will often see the, try to look at the entire picture, try to identify all of the things that can be contributing not only to the structural deficit identified but also why. Why do you have this structural deficit? What are the movement components of that or what are the movement components that are lacking in the performance that cause that to happen? I think that integrates a lot of bodies of knowledge without having to go step by step but not paralyzed by the details. You look at them and say this relates to this, but that relates to that. If you don't fit that, you fit this, and you don't effectively fix what is going on. It fits the "guided by maxim" and you use experience and pull things from different people. You even just pull from slight changes in movement from one person to the other. I saw that, and you can't exactly identify it right away but your eye catches it and says something's not right about that, but it cues you to look at the area even though you may be looking at something else. You realize that I saw that once and it affects this part of that, or that problem affects this. The secondary thing could be affecting this and you make a jump over here, fix this and see what happens. That is something that is proficient.

Researcher: When you first interact with a patient, what do you do?

Subject: I first introduce myself and let them try to guide me to what their big problem is, why are they here? Why did they take the time to come to see me, try to figure out what their thoughts are on why are they here. That gives you a lot of important information in regards to

are they really ready to be there. Are they ready to get better? You can often learn a lot by the way they word their problem. Some people are looking for a miracle; some people are motivated. You can tell if someone needs to be coddled, you can see if someone needs to be pushed. You can get an idea of other motivations of somebody's thought patterns and how you might need to explain things to them, let them talk themselves into why they are really here. You can lead them and guide them.

Researcher: If I were to stand outside the window and watch you work with your patient, what would you look like?

Subject: I would be very animated! [Laugh] But you would see me hands on when need be. You would see me explain a lot of things. You would see me push people beyond where they think they really could get to.

Researcher: How do you decide on a course of action or intervention for your patient? How do you get there?

Subject: I tend to do actually it a little backwards, from what I have learned. I tend to look at when I interview, I try to identify what is their ideal physical level and what is their ideal function. I work a lot with athletes so I take that and work through all the different types of training, and I forget that they are injured for a second. When do we need to get at that point and kind of work back at all of the things that I would train them. Then I go to the exam, and I have a set of deficits and impairment over here, and I have all the things that they need muscle power, coordination, endurance, coordination balance of all the other parts of the body and then I kind of work myself back to where they are. Then that allows me then to design a treatment for where you are right. Having in mind, I have already gone where they need to go. I have already thrown in real time changes in what they are doing. I don't just say

today I am going to work on their range of motion and I am going to do this and this. I am going to do some tissue and manual work. I am going to push. Do a manual technique for the purpose of achieving something! That they are going to need six months down the road, like a real actual event that really allows you to correct and identify all of the compensatory movement patterns or the compensations that an athlete might have knowing that they are a better compensator than you or I. They are genetically able to compensate at a higher level. That does not mean that they can necessarily perform at a higher level. They compensate at a higher level. So if you have an idea where that higher level is, you can train or rehab them within that framework. Rather than going straight linear, you can circumvent a lot of those compensation patterns that are going to happen by doing certain types of base work before then. If you don't think about what is going to happen when they now all of sudden have to stop, cut or run and you think about them running straight ahead. Well earlier on, they could have been doing some linear movement because there is probably less tissue stress on hamstrings let's say, like doing side to side cutting, but what you were working on really was their ability to decelerate and cut, yet by doing hopping side to side, you were able to maintain that skill early on with stressing healing hamstring tissue. Things like that allow you to circumvent that you know, and you know a mechanism of injury for the hamstring is usually deceleration type cut injury. So they are running straight ahead, decelerate, and they have to move, often pop, and that is when they often pop the hamstring. If you have addressed the issue of decelerating in a lateral fashion early on and then when you try to push them later on, they already have that skill. And you don't have to take another three weeks teaching them that. You have found to teach them that and still maintain an environment where the tissue is not stretched.

Researcher: How do you interact with other PT's in the case or other disciplines around the case? How do you interact with people when you are coming through this process?

Subject: I was the primary PT treating him. I worked with the pediatric physician and we talked. Initially, he was doing well and started throwing again and did a lot of things again. The difficulty was when we had to sit down and talk about this; he increased a lot of things at once. He went back to playing basketball. I don't have the ability right now to be able say it was one of these things. I know it hurts when he is throwing, but it may not be the throwing. So here is what I'm going to do. I am going to cut him off of everything and we are going to reintroduce everything one at a time. And then we would also talk about his symptoms, in some of the special tests consistent for an ulnar collateral ligament tear so we sat there and talked about it. Definitely when you x-rayed and first looked at him obviously the full medial epicondyle was the big problem, and we casted him and what not. What I want to make sure is given that assuming that the x-ray was the most recent x-ray and he [doc] said yes,. Well I was a little bit concerned that he stretched and partially tore the ulnar collateral ligament because it is the same exact mechanism but you are going to treat the more serious thing first. So we talked about that and we agreed and an MRI revealed that the ulnar collateral ligament was fine, which is good. He is awful young to have to deal with that too. That really told me that there was not really anything structural and that the epicondyle was a little bit swollen but again there was not anything structurally wrong. With that clue, I spoke to the physician and we were able to identify that there was something about the way he was moving. It could either have been the load that he was putting on or it has got be about his movement pattern that was still not correct. Reduce the load, and then that is when I looked at his movement pattern. Is he really able to stabilize? Does he have the strength in his core to be able to keep

himself from opening up and dropping his elbow too early. When I cut down the load, that was not so much of an issue. Him not doing anything more we were able to concentrate on one particular of training. We are able to talk and break it down. So we knew it was not a structural problem. It was two things that it could be; a) the inability to stabilize and you are screwing up your mechanics and b) you just don't have the power to man in the arm. We cut down everything else. No more playing basketball, no more playing in this other class even though in theory that class was fine. We are going to do these two things; we are going to basically isolate core stability and we are going to get you on the Biodex machine and beat the heck out of your arm with the power, not strength, not lifting, not force production, but speed of contraction and endurance of that contraction in order to sustain that power for a period of time. If you broke those things down per second, just those two parameters we are integrating throwing pattern and he was fine. No more pain and it took about a week and a half. No more pain and we were above pre injury velocity. So it gives you an opportunity to a) communicate and say hey there's a potential for a structural problem here and you have got to rule that out. I can't do that I can't order an MRI even though I think I should be able to I can't. So you've got to communicate with the people who specialize in structural deficits. I can identify the presence of them clinically but the doctor is the one who sees them all the time. He sees thousands of them so.

Researcher: Who is an expert? Tell me what is an expert? You discussed the proficient person excellently, so describe an expert person to me who you might know? What do they do, look like, or how do they think?

Subject: I think that they just pick up on a lot of things a lot faster. I think that I know that I learned something from that, I know that I should have picked up faster. That is why I don't

rate myself as an expert even though I am pretty well versed in throwing mechanics and pitching and the training that they need to do to do that, but I feel that I should have been able to pick that up faster before I started. It was not that I did not completely identify it because he was on and we tried to integrate it but we tried to do it within a biomechanical framework. And he struggled at it, and I knew he struggled at it, but I kept giving him...I altered the treatment plan but it was still within that biomechanical framework. After a couple of alterations, and it still was not where it needed to be even though he was getting better at some of them, I should have said ok let's pull him out of that. I should have picked up that he was trying to relate everything to the task he is not.. the ideal movement is the task for him was throwing. So all those things, even though we broke it down on each age stage of throwing, it was not the same. He would always try to relate it back to throwing. He would go into the same pattern, he would struggle and be bad at it. We spend a lot of time say 'quit making it like throwing' when I really should have said 'no throwing' we are going to do something completely different, something that is going to require the same muscles to react but has nothing to do with throwing. Because he would always override that automatic process; he would always kick in that automatic process. He would hit that threshold right away and go into the same mechanics that he had always done, no matter how we tried to destabilize him. He took it and there was no way he could throw. We made him work on it, but no way he could get that [pattern] down, he needed some of his core stability exercises throwing containing core stability and then he was all of a sudden good at the other stuff. I thought I should have picked up on that stuff faster. I knew that he was task oriented and I, to a fault, did not remove the task enough or make the tasks different enough, and I think the expert would have done that.

Researcher: What does an expert look like when you watch them? How do they look like standing up? Do they look different from everyone else or what's the difference?

Subject: Tough question! From a window? I don't know if there is necessarily a difference from expert to proficient from looking above. I think the proficient clinician should do exactly the same thing as the expert clinician otherwise you are not proficient. I think the sole difference is the speed at which they can pull from that working knowledge base or they can identify what the peripheral problems are, how fast they can pull that up, and then integrate, it and I think the proficient clinician at times in a complex case is slower, not to a fault but just slower. Not to a point that it is detrimental but could have saved a month if I had picked up on that earlier. This was alright because it was the end of the season, it was fall ball so it was not ultimately a problem but if that was someone who had to go to a play off game, that's not going to cut it; that's an expert clinician. That was fine for him but if that was a collegiate baseball player or someone who threw for the Red Sox or the Marlins or whatever and they eight weeks before they have to throw in a big play off game and an expert can get them ready in seven, a proficient can get them ready and makes a slower run picking up on what the problem is and gets them ready in nine, that's still really good for a serious problem, but that is not going to cut it at that level.

Researcher: There are standards!

Subject: An expert is consistently working at an optimal level. A proficient hits the optimal level a lot of the time but not all the time.

Researcher: Who is the novice?

Subject: I think a novice is a PT student on their clinical rounds or someone ...

Researcher: What do they look like when they are walking around?

Subject: [Laugh] Paralyzed by knowledge, paralyzed by a book! Serial thought, that's what I see in a lot of them. A complete inability to ... If they come in and they have knee pain and you by some chance critically identify that it is from the right structure, and get luck and you can do this stretch and this exercise, and they can do this and they are fine. They can do this as long as it follows a perfectly stepwise course because they can read, they can identify that this is a knee problem because this is what they have been told and this is what they read has been done. They don't have the ability to deduce what are the demands of peak function, what are the peak demands they want to do and able to identify the different components of that whether it be structural, muscle force production, range of motion, neuromuscular control, coordination integration, kinetic chain integration. They are not able to identify all of the components of that peak function nor are they able to pull out what they are seeing right in front of them. So as a result the exam looks very sequencing, having difficulty identifying the important part of what the patient says is, what the important part of their special test is, they have difficulty putting identifying the greater issue. If you lead them through it, they can say ok I have a meniscal tear. You say, good job, but why? You ask them why [laugh] – they really have difficulty answering the why.

Researcher: How do they speak to those other PT's and how do they interact with the physician if they do at all? How do they use the PT's around them?

Subject: They struggle when interacting with the physician, because the physician just wants to know the what and the why. They have difficulty identifying what is the really important point. Usually they will send a note over there [physician's office] or make a phone call, but it is usually a note, and it just looks like vomit on a piece of paper! Everything that they ever knew is sitting there on that paper. And the physician usually looks at it and says what the

heck is this. That's usually what it looks like. The good ones they are able to ask questions, and are able to ask not closed ended questions but are able to say I understand what I am seeing, but I do not understand why I am seeing it. They start to think and are able to pick up on what other therapists are doing. Often it is by seeing things and watching or over hearing things and figuring out what cue did they use to get this result. It may have nothing to do with it. Why did they use that cue? Watch people move! That is what I tell a lot of the aides when they come in. Do you want to be a good clinician? Sit there and just watch how people move. They probably have no idea why people move that way but it is really not important right now for you to identify. Even for the first year but I really want you to tell me the difference of why this person walks and the way that person walks and where is it different. You don't have to figure out why it is different yet, just tell me that there is something different. I bet you have two people walking differently and the student is going to say that those people walk the same, both walking down the hall. But I bet you they are not walking the same. They may not have anything wrong with them, but there is a difference between the way that person walks and the way you walk. This is going to give you clues to the type of neuromuscular recruitment patterns that you have, one of the more critical components of performance. It is not really so much your strength range of motion, but how you relate to and integrate the two things. Primary differences you see them in the high level athlete but the differences are how they are integrating those two things. Novices with that, the good ones pick up on that and know that they ought to identify that and use that. They can read a book and do a muscle test what makes you good and proceed is the ability to ability to identify the why.

Researcher: Does the why help them identify how to become an advanced beginner?

Subject: No. I think the why is not understood by the advanced beginner. I think the why is understood by the competent clinician. That is why I don't think that this is a stepwise progression either.

Researcher: So you are saying that about the five levels of professional development, all of them, or are you saying the first three?

Subject: The first three! I don't think that there is a set time frame. I think that some people have the innate ability to pick that up. That is how they are oriented. They are able to see that relationship right away. They are not going to spend a lot of time at the novice level. They may spend a little bit of time at the advanced beginner because you need a certain amount of time to go with the knowledge base of what you are observing, and I think that's what the advanced beginner is doing. I think that they are starting to build their knowledge base and clinical experiences. They have an understanding that they need to figure out what the why is, and they are not necessarily good at it yet, but they have high knowledge, very evidence based and they can pick up a lot of different cases. They can understand the pieces. This is something they need to know about it. They stop and research it, and they will start to figure it out being able to tie together what they know and to what they are seeing in the clinic. I think that is what makes a beginner move through to the competent clinician, as they start to do that seamlessly not just at a different level, the proficient clinician.

Researcher: How does the competent clinician function? What does he/she look like when you are watching them through the window? How do they relate to other disciplines and other therapists different than the advanced beginner?

Subject: Competent person, you watch them, and they don't necessarily do anything wrong. They are not making mistakes but they are not at a high level. Their treatment plans are not

as complex and as well thought out. They are still very serial. I think they do each thing at each stage well. They don't know how to circumvent stages and how to hear/pair something at this stage for something that is going to happen six stages down the road, and you are not going to do that thing in between. They don't have the ability to work in parallel if you think about that inductive logic. They can deduce things, but they cannot deduce things as well. They don't do anything wrong. You see them interacting. You see them reading the chart. They are able to identify the impairments and they are able to address each of those impairments at a competent level. But there are ways that you can do that faster as well as do that better. You can get a higher level. That person can get them back to where they were, not better than where they were before they got hurt.

Researcher: When were you competent? Or can you tell me signals or events for when you were an advanced beginner or competent? You say there is no time line but is there something that told you when you moved.

Subject: Yes, there is something definitely that tells you. It is hard. I describe them well.

Researcher: Was there a particular patient or a particular accomplishment?

Subject: That is hard for me to say that there was an event or a patient. There was a sense that you could walk in, hear a few things, and you could already identify by listening to them talk, watch them move. You could pretty much have a good idea of what would be wrong throughout the body. I think that when that came easy, and you could do that with a high degree of consistency. Consistently do it and then you check yourself, and you know that you are right. You are know that your mind and your eyes are right.

Researcher: So self-assessment comes with competency?

Subject: I think self-assessment is critical. I think self-assessment is critical competent to being able to answer. You have to know what you do well and what you don't do well. You have to identify a plan for how to get better at what you don't do well, and I think that is another thing that I don't think lower level clinicians necessarily do a great job of or something that you learn. If you learn it and adapt it, then you progress. If you don't, you stay at the competent level. That is critical for moving from a competent to proficient level, to realistically self assess your abilities.

Researcher: When I say productivity what does that mean or conjure up?

Subject: Productivity is getting the patient to the highest level possible in the least amount of time possible. That is not getting them to a sub optimal level in a short amount of time. I think you look at their peak level that they want to get to, and it is your job if you are productive at doing it to get them to that level, or within reach of that level as fast as you can and as safely as you can. I think that it is not based on symptoms. It more based on performance. You either get it done or you don't.

Researcher: Is productivity different for people as they are evolving toward expert?

Subject: Yes, I think it would be different. I think it is unreasonable to expect the competent clinician to be as productive as the next proficient clinician because of the speed of process it takes to reach that goal.

Researcher: When I say motivation what does that mean or conjure up?

Subject: It's getting that job done. I don't know it's hard. I motivate people. I use motivation techniques to get people to push themselves beyond which they think they can do it. It is exceeding beyond what you mentally think you can do. That is my job as a clinician and my

goal as a professional is to go beyond what is possible and drive yourself beyond that because you never know.

Researcher: Do you think that motivation drives you to achieve these levels?

Subject: I think that motivation is going to take you up to these higher levels, 4 and 5. There are a number people who stay at that competent level in this profession. I think people with a high level of motivation will achieve 4 and 5.

Researcher: Should I be asking these questions?

Subject: Yes, I think it makes you think about what it means to be a professional and what or how exactly you find that. When you examine that, it makes you clear where you are at. As a professional, you need to consistently push yourself to a higher level. We are also so happy to just go out and do our thing and that is not going to work. If you want to achieve the gain that we are talking in 2020, we cannot have a bunch of people hanging out at the competent level and be happy with that. That is not acceptable. 2020 demands that the majority of the profession is at the proficient level. A lot of it is at the expert level.

Researcher: Who should tell you the level you are at?

Subject: It should be a combination of your peers and a combination of your self assessment. That should be ingrained in you. If you are going to be in the profession and you are realistic about what you are trying to achieve, then you should not have to have anybody tell you that. But at the same time, the owe ness is on us as peers, to make sure that everybody that we are working with in our profession is doing that; re-evaluating what we do, how we do it, and is this the best way that we can do it?

Researcher: Is there anything else?

Subject: That's about it!

Subject 203: New DPT

Researcher: You have read through the items of informed consent and I have received your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: April 13th 1980.

Researcher: Your highest degree earned in PT?

Subject: DPT

Researcher: Year of graduation?

Subject: May 2003

Researcher: The institution from which you graduated?

Subject: New York Institute of Technology.

Researcher: Do you have any specialist credentials or certifications?

Subject: I am also an athletic trainer.

Researcher: Was this degree from the same institution?

Subject: No it was done through, I was able to take the test and do fifteen thousand hours vs. the eight hundred hours if you went through a school. So I did not earn a degree, I am just certified.

Researcher: Did you take the exam?

Subject: Yes I took the board certification.

Researcher: How long have you been working in the PT profession?

Subject: Since September of 2003, so four years.

Researcher: Were you a PT tech or anything like that?

Subject: No was not. I went straight through high school to college

Researcher: The amount of time that you have worked in the outpatient arena?

Subject: Four years come September.

Researcher: The stages of professional development give us a framework of the possible stages of your evolution. Has there been any course work that you have completed over the last four years of working? Orientation?

Subject: Yes. Continuing education. It was mostly orthopedic; shoulders and knees.

Researcher: Have you participated in any clinical education, college teaching or mentored staff?

Subject: Yes, students.

Researcher: Can you give me an example of an interesting or complex case that you have tackled recently?

Subject: I would not say I tackled it because it is still kind of a mystery. The patient came in yesterday. It was a neurological problem. Unable to rule out any back or spinal involvement because she had no back pain. She has drop foot and a history of low back pain 20 years ago post laminectomy at that point in time. Since August of '06 she ended up with a minor drop foot, no reason and absolutely no pain. She presented yesterday with slight drop foot, no pain, walks with a slap, strength was within normal limits, her whole right side is weak, she is has hyper reflex of her patella tendon, she has had spinal taps, brain and spinal MRI. Everything came out clean except for her CPK levels that shows a muscular problem. I have not a seen neuro patient since school and picking out what was wrong was going to be interesting. I don't see neuro cases and the last one I saw was in school so to pick anything

out, I guessed ALS. So of anything to be positive, I had to pick my brain. My first thought let her go because she was going to have an MRI to rule out a tumor or peroneal nerve issues. Got a call back today, and it was negative. Called doctor and he thinks it might be ALS. That is my complicated case and it took me about two hours to go through everything and talking to calm her down from thinking that she was dying. I usually do a long eval in fifteen minutes.

Researcher: Take a look at the five levels of professional development. Apply one of those levels to you.

Subject: I would say in the competent clinician, I am hoping!

Researcher: Why?

Subject: The novice clinician is kind of textbook; to take things without having any clinical experience. You are living in Disneyland in a perfect world, right when you were about to take the boards. If you thought clinically, you would probably fail. I did learn, not that I failed my boards and I passed the first time. That is what it seems like to me. It is pretty much taking what I learned in school and that is what I am taking and nothing in the real world is what you learned in school.

Researcher: If I were standing outside the window and watching them work, what would the novice look like?

Subject: Good question! I don't know what they would look like. If the patient just walked in to our clinic anybody can throw a person on the machine. Our aides can do it. They would look like anybody in what they were doing. They would not have any understanding of why they were doing it or any reasoning of what they were trying to or goals for the patient. Would they look like anybody else. Absolutely! My aides would know more because they

are with us every day. The advanced beginner is probably where I was when I first starting I am guessing. You know stuff because you have been in the clinic but hesitant to make decisions; not sure at what point to progress the patient, how quick or whether or not to progress the patient. Everything was, let me ask, trying to get the re-assurance from the people who you work with or people that are higher up than you. That's probably where I was. The competent clinician I think there was a lot to getting to know your doctors and what they expect from you and being able to progress them according to the history and rapport with the doctors. And reaching the goals that you have set up with your patient; know that you are here or reaching here, you do this. The best way to describe it is with the ACL patient. You know when to discharge your patient, you know when to improve, they have quad set, you may want to open their brace or take it away if there quad set is great. Being able to know when to go on to their next phase of treatment! More now with experience the novice clinician would never know that. The advanced beginner is going to be wishy washy, like I was when I first got started, that advanced beginner is second nature. Not something that you have to think about.

Researcher: How does the novice and the advanced beginner interact with the physician?

Subject: The novice clinician I don't know if they would be so quick to call the doctor. I don't remember being at the point because I was a student and I was not quick to call a doc, my CI would do that for me or tell me what the doctor would do and tell me what they knew the doctor wanted. The advanced beginner, when I had to first call my doctor I thought he would think I was a complete idiot. What do you say and how do you approach it? I am fortunate to have worked with the docs who refer to us. They come over and give us in-services and how we got to know and what they expect. If I was not here, and I do have to

call doc on a regular basis now, I know through experience what to say and what not to say, take what they have to say and tweak and make it work for the patient.

Researcher: How would you describe the proficient person? Are you approaching that? An example?

Subject: I guess, because when it comes to thinking things out it that you do what you do, no typical anything. When you look at an ACL, you do what you do and not have to think about it. You go through the motions and you know what to look for and if you don't see it, you have something wrong. It is kind of where I am now, somewhere in the middle of competent and proficient where I need to pick up on small things. Probably the difference between the two the proficient will pick up on the obvious and the small things that you would not have thought of looking for. That would probably go along with being the expert where you would be able to pick up on the really small things and never think of testing certain areas of the body. If they have a leg problem, to look at the back, to look at the whole picture and that's what I think an expert would do. Take it and not take it, you are coming in with an ankle and is it really an ankle. What else is there to look at? I think as a new grad you are not looking for that. You look at the prescription and take it for the broken leg. But are the hips weak, do they have anything else going on not taking the diagnosis for granted. Just because the doc wrote it down, does not mean the doc touched that patient or they could have written it down wrong. The expert who takes that is a bad expert. They take a look at the diagnosis, write it down and then say is that really their problem? Because they have to treat the clinical symptoms and not the diagnosis.

Researcher: If you stood outside the window at the proficient and then the expert, is there a difference for the proficient or the expert. You said there was not difference for the new ones?

Subject: I would not pick a therapist because of just looking at them anyway because everybody's personality is different. You want to pick the PT who is going to fit with your personality. From experience you learn that not everybody is going to like everybody or get along with everybody. One PT might be the best for a difficult patient and their personality. But would you be able to tell? Will they look any different? No but you will also see the expert or the proficient doing all the hands on work. You are not going to find a novice looking, touching, feeling to really find out what is going on with a patient. That is really more an expert or proficient clinician. They might be looking but probably not knowing what they are looking at. An expert in our facility if you watch the boss work, everything is hands on – he is looking at everything. It could take him an hour to look at a patient. He is not missing anything. Some one new out of school takes what they have and is given the information that they have. That's it. They accept it for being what it is and then treating that part. The expert looks at the whole picture.

Researcher: When you interact with the patient for the first time, initial examination, going back to that approach, there are certain comments that you indicate that you were a competent person. For these levels how is the initial approach the same or different?

Subject: The first you need to realize is that everybody is different. There is not one person that you are going to meet that has a similar personality to anybody else. The goal is to figure how quickly you can pick up on their personality to kind of get them in here and smooth things out. You never speak to a child the same way you would speak to an adult. You try to

get to their level and let them know that you understand their fears; you have to give them something that will get their attention away from what you are going to try to do. In the same way you are going to have adults who are scared or more geriatric patients have total joint replacements, never had PT before and don't know what to expect. You have to kind of coddle those patients. You have been able to pick up on that because they are never going to come back if you put them in pain. You have to have a sixth sense in how you need to portray yourself to them to be comfortable, make them want to come back and make them believe that what you are doing is the correct thing, make them believe that you are going to get them better. The novice does not have that experience to understand or portray that to any patient. That will take some experience.

Researcher: When did these skills appear for you?

Subject: They probably started developing my first year. As a student you treat patient, do evaluations, but they are never your patients. You are treating other people's patients. When you come out as a new grad, these are your patients that you either have to make it or break it with them because they are all they have. You learn the hard way about what you can and can't say to patients [laugh] and that probably develops in the first year. You never know who you are going to encounter. You are dealing with the general public every day. So you learn in your first year to accept them for who they are and get over it.

Researcher: Would you say that was in your advanced beginner time?

Subject: I would say so. When I started here, I would say that is where I was.

Researcher: The sixth sense brought you to the competent?

Subject: I would say and all of my psychology classes. You really need to have a psych degree in order to deal with some of these patients. We do not have a couch here but when

you get them on the table they start to tell you their whole life story and they think that is why a lot of our patients feel more confident in us than the docs. We spend more time with us and we listen to them. We spend more time with them, and they may spend three hours a week here, and that may not seem like much but compare that to the time the doc spends with them. The doc spends five minutes. I think that it is important that we have better bedside manners than doctors do because they don't have to come back here, they have to go back to the doctor. That is the difference between the PT and the MD world.

Researcher: What happens to the sixth sense when you go from the proficient to the expert?

Subject: You don't have it officially; it is going to constantly grow. There are always; always going to be different people in this world. You may think that you got one and you understand them but there may be one tomorrow that you can't get them. Not everybody is easy to read and this is skill that will develop over time. That is one thing that the boss will tell you. It's took him thirty years to really understand people, and that is how long that is going to take.

Researcher: How do you think the clinician at any of the levels has as a strategy of decision-making when you are trying to decide the best course of treatment for your patient?

Subject: The novice clinician you will see steam coming out these peoples' ears. They are probably saying I do not know what I am looking at. I know I learned this in school somewhere and I do not know what to do [laugh]. The advanced beginner, you know the wheels are turning, and it is probably in there. You know you learned it, and you are just afraid to make a mistake because this is your first job and you are not really sure of yourself. You are going to make a decision, and you hope it is the right one. The competent is more, I have been on the job for a few years. I know what is going on. I have done this before, may

say just do it but they may have many question themselves. The proficient clinician is getting toward the better of not even thinking whereas they would be I have done this thousands of times before. This is probably the right way and if it fails I will think of something else. The expert clinicians are like robots. They are just able to do it. They can't tell you why they do it. They just know.

Researcher: The patient has benefited from your intervention. How do you know and decide that the patient has benefited from your work?

Subject: I would not say tests and measures because everything is so subjective. Your five is different from my five and the gender differences. It is really their functioning level. When you plan a patient's discharge, it has to be what is reasonably sound for this patient to be doing. If they were not running before this hip replacement, you can't expect to be running after this. You can't expect them either because they were not at that level before. That is not a reason to believe that your patient is getting well. If they were not able to walk before because of pain and now they can, these are goals you want to achieve. You set long term goals and once you achieve them, you know you can discharge them. Is there ROM and strength functional; yes! Is it 100% but not everyone is going to be 100%. Are functioning patients are able to go through their daily routines? A lot of times of times before we even think that the patient is ready, there are more times than not the doc are discharging them before they are functionally ready. Some people want to be in here some do not; it is a social life for some. Once the doc says they are done, they do not care if they achieved their goals. For us do we want there ROM to be a five and strength to be high we do not live in a perfect world. Are they functional – can they sit, squat, walk two blocks, climb stairs – things that

are functional everyday activities. That is what we want to see and we then say you can be discharged. If not they should not be discharged.

Researcher: Would the other levels be able to go through the sequence of thinking or a level that does this better than you?

Subject: Any level higher than me would probably do it quicker or better, but that's hard to say because they might be able to tweak their program to see something that I did not see.

They may not be higher but different. We have differences not necessarily an expert person, a different school or train of thought. The best way is that if you see someone all the time you get tunnel vision. You don't see something different so call someone over to look and see if they can see anything different. The novice would not be able to help you as far as that. They would not probably be able to tell you if the patient could be discharged or handle the goals. The higher three should be able to discharge a patient. The expert is not going to get their patient out of here any quicker. The only difference would be to progress the patient more quickly.

Researcher: Do you think that there is a time frame attached to levels of development?

Subject: No! Could there be ranges. Possibly! But everybody is going to develop differently and you can't judge what how someone is going to reach each level. You only get out of it what you put into it. A person may want to be a mediocre clinician and just collect a paycheck and that is just fine. That is not someone who you want to work with you. That is their choice and they went to school with everybody. That is not what a boss wants to hire but that is what they do. The goal is to be the best that you can be, so I don't know if you can put a time on these.

Researcher: What do you think will contribute to development?

Subject: Experience is definitely the key to being a good PT. All the education in the world and this comes up with getting the DPT or not. Does it make you a better clinician, absolutely not! Your boss has been in the field in 33 years – what he learned in a school is different than what he learned in school but the anatomy is the same. I could not imagine what he know and be at his level at this point in time. What you get from an education or text book what does it mean to be at the expert level? No one is coming out of school at the expert level. Definitely continuing education would be of use, touching, feeling, seeing observation, talking to your peers seeing what they see, trying to understand why you can't see what you don't see. You can't do it on your own – it is a team approach to advance yourself. You don't know what you don't know and you can't learn this unless someone shows you or points it out to you. You are only going to feel more see more and touch more by experience. There's nothing more out there that could help me through these phases if it was not for experience.

Researcher: How should this performance be measured? How are you going to know where you are? Do you need to know? I need to know because I am a perfectionist! Subject: There are some people who don't care. They collect a paycheck, and they don't care what they do. How is it measured? I think the best way is to set goals for yourself and say this is what I want to learn today or feel. That is the only way that you are going to achieve the expert phase. How to achieve it? Definitely need experience. Measure? Myself and whoever I am working for. I am not learning or gaining anything. There is not reason for my boss to keep me here. I would never want to hire anybody that is at the same level when they left pt school?

Researcher: When I say productivity, what does that mean?

Subject: How your PT does with the time they have! Patient treatments, how many patients a PT can treat at one point in time, what they bring to the table, what they can handle at one time. They should not just be doing patient treatments. They go home. They have to be able to do notes, talk to patients and doctors. It is a whole picture.

Researcher: Do you think that productivity is the same for each level? Different expectations?

Subject: Yes, because you cannot expect to throw everything going on in this office at a novice clinician. I know myself, I treat patients, do my notes, call patients that are not here, just patient care alone is not it. I handle the aides, make the schedules, am looking to start up a pediatric clinic. You can't give all of that to a new grad, plus you may have a student. I had to grow really quick because I think the first couple of months I was here we had so many students. I was given a student and I almost had a heart attack. I had to go back to my books. That helped me get through the first phase pretty quickly because you had to. The best way to learn is to be thrown into the fire because you sink or swim. If you are not given that opportunity, you are probably never going to want to take it!

Researcher: Motivation?

Subject: You either have it or you don't. It aggravates me some people do not have it. I am totally different. You tell me to do it, I do not procrastinate. Did I procrastinate studying; yes I hated every aspect of studying. Anything else I was a girl who worked three or four jobs through college plus a volley ball scholarship. I am happy doing a lot of different things. There are a lot of people who are the exact opposite. Do you have to be motivated to be a PT. You would think so because if you walked around here being miserable and I slow motion, the patients will not come and they need to be motivated. Motivation is definitely a very big

thing – that and time management. If you don't have that, you will not go very far. This place and others are very, very busy. If you are not motivated to manage your time you will sink in this place and in PT. You have to be motivated, you have to be bubbly and outgoing and I probably was the shyest person you would ever meet until I graduated. I never spoke in class and they wondered why I did so well. I absorbed everything and I taught myself. I needed to regurgitate everything on the test by the time I took it. Some people thought I was rude. Some people who are shy come off rude, I understand that and I try to instill in my students that the world is scary on your first clinical. You get through it! It was my first time of trying to understand people. You have to learn to stick with it. When you are in the office, you put on the best show of your life. You go home and are different, but you are here to entertain and get them to come back and hope to make them better in the process.

Researcher: The presentation that you just talked about how does it apply to the levels?

Subject: It is absolutely different. My first clinical I was just panic stricken! That was also the way the clinic made me feel. If you don't like the environment, you will have a bad personality. It may impact the five levels but you have to look at the big picture. You will be miserable as an expert and portray it to the patients. A novice person may be motivated but their motivation is going to be erratic. They don't have a knack for what they are going to do, and it may be an unsafe motivation or be really nervous. The advanced beginner has motivation and wants to do well in their first job. As you go through the stages, everything becomes second nature, and you almost don't have to work as hard. You know what you know and there is no need to run out to cont Ed classes per what people think. But if you are out for twenty years, you need to get to classes. From the four years I have been out of school, they have re-named body parts! You don't realize that in such a small amount of time

in the medical and PT world, things change drastically. You need to go to courses, and you are not motivated to become a better clinician.

Researcher: Are these questions valid?

Subject: It is good to understand how people feel about their profession. It makes people think of where are you? Where do you think you are? Should you have done something differently? Should you have taken more classes? Should you have placed your career in another direction? It makes me think about what I want to be and what I want to get out of my career? It is good and I would never do this. Some type of standard to see where you are as a clinician. Maybe give some checkpoints. This is Greek to me. I have to have everything specific. Some people are satisfied with the whole picture that fits into a certain category? Standards that give measures within each phase.

Researcher: PT's if we were to do this; in the definition should there be more standards?

Subject: The CPI is the most awful thing to fill out. In that way it says, is the therapist able to do a list of key characteristics of that specific thing instead of a mumbo jumbo of words? If they see it in a check list, maybe they might do this. I would not want to read this whole big paragraph. Gives them a way to see achievement that shows them that they are making gains instead of the vague descriptors.

Researcher: So you could be in more than one category?

Subject: I would think because I do not know what the whole category entails? Is there more to a competent clinician. Is there more to being proficient? Characteristics of something that I would not know from reading this.

Researcher: We are good!

Subject 204: New DPT

Researcher: You have read the statement of informed consent and I have received your signature to continue?

Subject: Yes.

Researcher: What is your DOB?

Subject: March 27th 1981.

Researcher: What is your highest PT degree?

Subject: DPT.

Researcher: The year that you graduated?

Subject: 2005.

Researcher: The college that you attended?

Subject: The University of Medicine and Dentistry of New Jersey.

Researcher: Have you received any certification or specialist credentials?

Subject: Not yet!

Researcher: How long have you been working in physical therapy?

Subject: A year and a half.

Researcher: How long have you been working in the outpatient arena?

Subject: A year and a half.

Researcher: Have you had any previous experience in the physical therapy arena?

Subject: Just on student affiliations and as an aide.

Researcher: How long were you an aide?

Subject: For three months over the summer during school.

Researcher: Have you participated in any clinical education, college teaching or mentoring of staff?

Subject: I was a clinical instructor for two students.

Researcher: When did that take place?

Subject: December 2005 to June of 2006 and September to December 2006.

Researcher: Have you taken any courses since you have been in the PT profession? What was the orientation?

Subject: Yes. I took one course in the APTA meeting. It was on the different approaches to spine surgery and the different spinal conditions. It was the typical short three CEU's. And then I took evidence-based practice for the treatment of shoulder pathologies.

Researcher: This has been in the last year?

Subject: Yes.

Researcher: Can you give me an example of an interesting case that you have tackled recently?

Subject: I have a patient with Charcot Marie Tooth. She has been a challenge not only because of the diagnosis but the behavioral challenges that go along with that. Having to take the different arenas of physical therapy and combined them into one. It is not just orthopedics. It is the neurological component, the orthotics... The teaching and learning component and how she best learns hers skills and the carryover between sessions. She has been interesting. I have another patient with Parkinson's – just watching his gains and having to vary your treatments as to how he presents on a daily basis.

Researcher: You have in front of you the five levels of professional development. Where do you think you fall? Apply one of the levels to you?

Subject: I find myself between advanced beginner and competent. That is based upon my exposure to the varied cases although as of late I have been increasing my exposure. I suppose because I have been in the field for only a year and a half, my exposure has been limited to the experiences that would show you the different presentations between diagnoses. Two people can have the same diagnosis and present totally different. And just learning which exercises will really rehab a certain condition versus others and adapting protocols to patient needs.

Researcher: If I were to stand outside the window and watch you work, and you are between the advanced beginner and competent, what would you look like?

Subject: A chicken without a head on most days! It depends on the day. On the slow days, it will be a lot of paper work and catching up with patients finding out why they are not coming, helping the front desk. On a busy day it's more about time management, figuring out how you are going to fit in your manual patient or taking the time to make sure that you are instructing the patient correctly – a lot of running around some days.

Researcher: How do you interact with a patient when you first meet them?

Subject: I try to stay with them and interact on the human level, more of having a conversation with the patient versus a medical interview. For me I like to try to find something that I have in common with the patient. It may be a sports interest or someone in the area, or pets, really try to connect with the patient to make you seem more human and express empathy as you try to build that trust and rapport with the patient.

Researcher: How do you decide on the treatment intervention for your patient or the best intervention to follow through on?

Subject: For every diagnosis in my mind I have exercises or a plan of care that I would like to implement. But it comes down to how they present on the evaluation. If someone has normal range of motion I am not really going to focus on range of motion. Obviously to maintain, but if there areas more of weakness or lacking stabilization, I would focus more on strengthening, balance and stabilization.

Researcher: How do you know that your patient has benefited from the work you have done with him/her?

I do evaluations at least every month or twelve visits for a patient without Medicare. For the patient with Medicare it is every ten visits and I make sure I do progress note and re-evaluate where they are every visit. I will do a formal re-evaluation but I kind of assess every visit and talk to them. I want to see how they are feeling and what their functional limitations still are and what I can alter in their program to help them improve.

Researcher: When you say re-evaluation or re-assessment, are you using objective measures or what are you using when you say re-evaluate?

Subject: For the formal re-evaluation, I will take range of motion measurements, edema measurement, manual muscle test and any other scales that I used at the initial evaluation.

For some patients I will use the Berg Balance scale and I will run that again to see how they do compared to their first visit, what areas have changed and how have they changed and if they have gotten worse, why.

Researcher: How do you interact with other disciplines within or around a specific case?

Subject: Am I assuming that there are two us working with the same case?

Researcher: There may be two of you, the case may have been passed on or if there is a physician involved in the care, how do you interact with them?

Subject: If it is a clinician in his office, I will verbally discuss with them anything I need to know, or what that clinician about where they want this patient to go, and read through the whole chart so that I know what the patient is presenting with. Physician's office I will send over my notes to the doctor periodically. Make sure that the doctor gets the progress note if the patient is scheduled to see them. If it is something that I feel really needs immediate attention, I will call the physicians office directly and speak to them.

Researcher: How did you know that you went from the advanced beginner to the competent?

Subject: I don't feel I have yet. I am progressing that way.

Researcher: What is progressing?

Subject: I am taking what I am learning and applying it! I am learning something from every patient that comes in and the classes I have taken so far and really looking at the whole picture. How can I apply what I know now to this patient? Just seeking advice from my colleagues what they may know about a condition and how I can use that with my patients. Unfortunately there is no checklist that says you have reached this level. That is hard. I think it is more of a self-assessment at this point.

Researcher: Who is fully competent? What do you assume you will be when you are fully competent and no longer in the advanced beginner category?

Subject: I think to be competent would really just be able to do it on your own. You should always seek the outside opinion but you should have a solid grasp of the academic foundation, the clinical foundation and what is out there as far as research. So in best practice, you would really be able to provide the patient with the best care you can possibly give them. If you can't, you are able to recognize that and refer them appropriately. To be

competent is to take all those levels and not, and as we can do, overlook something that they may need and just jump into it.

Researcher: So does the competent clinician look any different from the advanced beginner and watched you working? If I stood in the window and watched you function in the gym, would you look any different?

Subject: I would say that the competent clinician probably would have a better grasp on their time management [laugh], although they may be all over the place in their head. I think there outward appearance they would move at a little more normal pace and not feel like so much is going on. Over time I think you develop that skill much better. You present yourself as alright I got this and I can handle this.

Researcher: What does the competent clinician do in terms of deciding a solid intervention and realizing that the patient has benefited from them?

That is tough! How would they determine their plan of care worked for their patient?

Subject: Hopefully they are reassessing on a not daily but a visit to visit basis. And seeing if a patient is no longer benefiting from a certain intervention – advance them. Make sure that they are constantly advancing their patients and reaching the goals that they did set at evaluation then they should definitely be checking and making sure that they are moving toward achieving their goals. I think that they should be doing the same things that every clinician is doing.

Researcher: How do you think the competent clinician interacts with other PT's and with other disciplines?

Subject: Same way! I think they should be making the appropriate calls and following through with whatever they have discussed with their patients, other clinicians and the

physician. The physician has a certain protocol they want – make sure you follow it. If you see something outside your scope, refer out if you see something that you can't treat. Refer! Recognizing what you can do and what you cannot do.

Researcher: The proficient person. Do you have an example of a proficient person or can you tell me who the proficient clinician is?

Subject: I think the proficient person would know how to manage a clinic and treat patient.

Able to take on more responsibilities that are not so treatment based, expand their knowledge into a different arena like micro management of running an office. Taking on the responsibilities of knowing the insurances inside and out and what steps they would have to take to ensure the patient is maximizing the benefits from the insurance company and not having the financial responsibilities should they not follow through with that. They are taking on more tasks but handling it.

Researcher: The thought process for the proficient clinician in terms of patient intervention and recognizing benefit - Do they do that any better? How do they work with their patient?

Subject: I think they would probably have a certain plan of care for their patients. More refined, I would assume only because they have seen thousands, at that point, of patients who have had meniscal repair. They should know how patients are responding. Of course there are those one or two with issues but they would be able to recognize quicker. I think they probably have the same plan of care. Hopefully they would have taken their continuing education courses to add to their base and be able to incorporate it better. Whether it be a manual treatment or a functional activity something that they can expand upon that expresses their knowledge.

Researcher: How do they interact when they first see a patient?

Subject: [Laugh] Hopefully they are personable. But sometimes the more knowledgeable you are the less... sometimes you lose your bedside manner because you are so focused on the knowledge base and the academic base. That is unfortunate but hopefully they are still relating to their patients and building that trust. Relating on that level, really speaking to the patient and not using all that medical jargon which can happen.

Researcher: Tell me who the expert is?

Subject: The expert was my CI. On my pediatric affiliation, she was someone who worked in orthopedics and made her switch to pediatrics and just became that person that you hoped to be one day. She's just paying attention to all the systems. It was not just seeing a child and just saying ok – she can't run but why? She looked at the respiratory system, cardiac system, neurological system and found a way to bring all of those together. The continuing education galore. Every other week she's at a course, bought it back and taught her students how to do it and really made you love what you do. She made her co-workers feel confident in their skills. She was so good at what she did and loves what she did. You just see it when you meet her. She went into the realm of yoga and brought it into what she was doing and adapted it for patients based on their needs. She could have a child with cerebral palsy out of their wheelchair doing yoga, and it was just amazing. To me she is what an expert is.

Researcher: How do you think she concluded per treatment plans and determined patient benefit? What were her skills when it came to getting the treatment plan written down

Subject: and working with a patient until recognized benefit?

What she had given to me which I think is kind of what she does mentally for each patient but what I did on paper; she would break down every patient's functional limitations, what impairments contributed to the limitation.

Researcher: She used the Nagi Model?

Subject: It was a chart that she made up for herself. She wrote down the functional limitations, the impairments, what motor learning concept was an associated concept as to why the patient could not achieve their goal, and made sure that every part of that was in a goal. From those three columns we would write a goal and from that goal develop a treatment plan. It was great because you did not neglect any area of the treatment plan that that patient might need and you also developed your goals in a functional manner. That was huge in the development of the treatment plan and helped me in developing a plan.

Researcher: You said that she made her co-workers feel knowledgeable, important and contributing. Would you say it was in PT or across the disciplines?

Subject: Across the disciplines. In that particular the PT, OT, and speech language pathologists that worked very closely together. She would constantly praise the OT's and there were certain times when a PT and OT would be working at the same time. If she did not know something, she would seek out the OT or the speech pathologist and figure out how to incorporate that information into the PT treatment. She made sure to point out when a clinician did something that she thought was amazing or completely help out the patient. That was everyday that she made someone know that they were doing well and were appreciated.

Researcher: When and where were you a novice?

Subject: Yes, I feel I was. When I was a student! My first time ever working, you are on your own. When you are a student, there is always somebody there to seek out information and somebody is there to hold your hand a little. Hopefully by the end they are not, but there is always somebody there [laugh]. When you first start working it is so different. There is nobody but your colleagues are there. You are handed your patient schedule and that's it. You don't have to hand your eval back to somebody and say this is what I did and this is what I am thinking. It is great to do it yourself and develop that thinking and learn how to diagnose your own patients – the PT diagnosis. You learn real quick.

Researcher: The novice is the new employee?

Subject: Yes, as a new employee I felt very novice.

Researcher: How does the novice interact with everybody?

Subject: I think they are a little more timid. I think they tread lightly in their area. You don't want to step on anyone's toes. You keep your opinion to yourself; you are a little afraid to say I think you should try this intervention. Even in your plans of care you are a little hesitant to write something, but you get over that quick too once you learn how to interact with your co-workers and how they respond to your input. Thankfully here we all work well together.

Researcher: How do you decide the benefit of your intervention?

Subject: The same thing; re-assessment. Just talking to your patient and asking them their perception of whether they are able to... let's say a patient was having difficulty going up and down stairs. Are they able to go up and down with one hand instead of two? Can they do it reciprocally? More of a patient perception and how they are doing. In my mind I would want them run up and down stairs but that would never happen.

Researcher: If I were to watch you work, what would you look like?

Subject: As a novice? Oh my lord! [Laugh] Very frantic! For me I felt everything had to be done immediately. I could not let anybody wait thirty seconds for anything. I felt like I had to do everything and not use my support system as much. I slowly learned to ask for help and maybe ask a patient to wait a minute or two. As long as you approach somebody and keep them informed.

Researcher: Is there a time line to these?

Subject: No, I think it is different for everybody. People in all areas of life develop differently. Hopefully you have the fostering of a setting to help you move through those, and you are staying on top of the education and research to provide your patients with the best care possible.

Researcher: What makes you evolve?

Subject: Your experiences make you evolve. The mentors you have and how they really contribute to your education; education is life long. It is a lot of that and self directed learning and initiative to get out there and take advantage of all the opportunities in front of you will determine who progresses more quickly.

Researcher: When I say productivity, what does that mean to you? What does that conjure up?

Subject: What does that conjure up? Well, [laugh] for us here that would really mean productivity in how many patients you are treating per day and per week. The percentage of cancels and no shows you have; are you following up on that and are you finding out why they are not coming in and is some making an effort so that we do not loose the patient. That is what productivity means to me but also I think it has to do with your ability to, in your time frame that you are here to treat the patients on your schedule, complete your notes,

complete your schedule and get all of your work done without having to stay extra time after work. Make sure you are managing your time enough to complete your daily tasks.

Researcher: Do you think that productivity is the same for each level?

Subject: No. I think you should be more productive as your levels increase. I think that comes with taking on many tasks. As I said if you are running a clinic, there are reports that need to go out and obviously you need to supervise your staff and do your reviews, make sure that you are meeting all of those goals but meeting your goals as a clinician as well.

Researcher: When I say motivation, what does that conjure up?

Subject: Well, there is a lot of self motivation! But then if you work for a company... everybody just wants to be appreciated and once and a while a pat on the back works. You just want to know that your work has not gone un-noticed. For me a lot of that comes from my patients. When someone comes in and a simple thank you, that is enough for me. Getting a pitcher back on the mound in time for baseball. I think it's the accomplishments of my patients that motivates me.

Researcher: You think motivation is the same for each of the levels?

Subject: It should be. You never want to see it shift to a monetary gain – that would totally lose the sight of why we are here.

Researcher: Should I be asking these kinds of questions?

Subject: Absolutely! I think it makes me think about... it makes me remember why I got into this field, what I have done and what I should be doing. It makes me have a little checkpoint.

Researcher: Measurement of these levels, should someone be telling you where you are at these levels if this was applied to the profession, how should it be done?

Subject: That is tough! I don't think anyone wants to have someone tell you that you have to be at this level by this point in time. You should have enough motivation and initiative to want to progress through those levels. I don't think anyone wants to be a novice their whole life. Then you have clearly done nothing with your career or profession. I think it is a lot of self-assessment. Like I said, if we are self-directed learners. It would be helpful... like I said before there is not a checklist to say well I have done these but what do I really need to do to have a solid grasp on my performance. I think on a yearly basis so that is kind of highlighting a few things but in terms of progressing through these levels, it would help if you had a little reminder. You did all this so maybe you might want to try something different. Maybe you might want to try a different course to learn a new technique or get a specialist certification. It would help if there was a better outline of what these levels really mean in terms of a professional landmark or professional accomplishment that you could really know that you have achieved it, and you are really there.

Researcher: Are you looking for someone to give you a reward?

Subject: No. if you are really achieving all of the arenas that you should be, you would be nominated for your award and you would be awarded. I don't need to be given an award to know that I am doing well. There are a lot of awards out there and it is a huge honor to be nominated for and even if you don't win you should be proud of yourself at that. For me it is about my patients achieving their goals.

Researcher: Anything else to add?

Subject: No. That was tough!

Subject 205: New DPT

Researcher: You have read through the consent form and I have acquired your signature?

Subject: Yes.

Researcher: What is your DOB?

Subject: April 22, 1981.

Researcher: The highest PT degree that you have earned?

Subject: DPT.

Researcher: Year of graduation?

Subject: May 2005.

Researcher: The college or University that you attended?

Subject: The University of Medicine and Dentistry of New Jersey in Newark.

Researcher: Any certifications or specialist credentials that you have earned?

Subject: Not at this time. I was studying for my CSCS but I did not go through with it.

Researcher: The amount of time that you have been working in the PT profession?

Subject: One and half years.

Researcher: The amount of time that you have been working in the outpatient arena?

Subject: One and half years.

Researcher: Have you had any other PT exposure?

Subject: Volunteering prior to going into college, and I was a patient as well. That got me interested in the first place.

Researcher: Have you completed any courses over the last few years?

Subject: As far as continuing education, I went to a course on licensure. It explained what we had to do as far as the state of NJ as far as to keep our licensure; it was a course on that.

There was also one on lumbar part at one of the annual meetings at the APTA of NJ.

Researcher: Have you participated in any clinical education, college teaching or mentoring staff?

Subject: I would like to have a student but no. When the other person you interviewed and I were in school together, we did help in the admissions interviews, and we acted as peer advisors/liaisons. There were certain professors who did approach us to speak to students. We never really had that in our class. The class before us did not really talk to us so we did not let that happen.

Researcher: You were student representatives or student ambassadors?

Subject: Yes. I was the student activities committee person. She was the APTA liaison. Then I joined also as the liaison. She was the main one.

Researcher: Can you give me an example of an interesting case that you have tackled recently?

Subject: So far there is one young boy, and he is sixteen years old. I actually took him over from one of the other therapists when she was out on leave. He has transverse myelitis. He is wheelchair bound and is pretty much a tetraplegic. He has some use of his right hand, less use of his left hand and paralyzed elsewhere, so he is in the wheelchair. He does have enough ability to manually move the wheel chair but it is hard because in this kind of setting, the focus in on the sports athlete or the patient who is more ambulatory. We had to adapt the exercises to him. For instance we have him doing a lat pull down machine. We have to strap his left hand to the machine because he does not have the grip to do so. It is pretty challenging

in that way. He is also a 16 year old boy. We take him into one of the separate rooms. We do not have a hi-lo mat so we really count his sliding board transfers. We just recently got him on to a peanut ball and have him working on his sitting and reaching balance. He does have a back support on his wheel chair. We would like to get his abdominals to kick in. I think I wrote him down as one of my complex patients because he is very complex.

Researcher: You have in front of you the five levels of professional development. I would like you to recall the type of experiences and examples that molded how you currently work. I would like you to apply one of the levels of development to your current performance.

Subject: Ok. I think I am somewhere between competent and proficient. It says the proficient clinician that the perspective is not really thought out. But I do think as I am going through and evaluating, it could be this or it could be that! As far as experience goes, I really only have one and half years so to me I don't feel I have enough experience to draw from. For instance with this one diagnosis, it is a total hip replacement and there are incisions. I have seen two patients so far and both outcomes have not been as stellar as they have been advertising. It is more for younger patients. So I have been seeing there has been a lot of tightness and a lot of pain associated with it as compared to the one incision procedure that we typically see. The two incisions are typically for younger patients, and I feel like if they have the one incision, they would do better based on what I have seen. Experience wise I have only seen two of them, but my patient had asked me my personal opinion and I could not really give it to him because I have only seen two patients with this specific surgical technique. So he is going back in for his other hip and was trying to gather some information. From the patients that I have seen, they have not done as well as patients that are older that I

have seen with just the one incision. In that respect, between the competent and proficient clinician. To be quite honest, some of the terminology has me confused.

Researcher: When you first meet a patient what do you do?

Subject: Basically I introduce myself. I try to make them feel comfortable. I found very early on that the best thing is to try to find something in common with them, whether it be for example when I was training at school the one mock patient had on a Seton Hall sweat shirt. To try to make them feel comfortable with me and gain their trust I said "I see that you have on a Seton Hall sweat shirt. Did you go there? I am an alumnus of Seton Hall." I try to gain their trust that way and make them feel comfortable. To me that is one of the most important patient/PT trusts and make them feel that they are comfortable enough with me treating them. Especially if you are working with them in a private area such as the piriformis.

Researcher: How do you decide on an appropriate treatment intervention for a patient? What strategy do you use?

Subject: It all depends when I take into account many different things not just let's say if they had surgery, not just the protocol. I take into account, for example, I did one of my affiliations in a cardiac place. You know that you cannot stress patients to the three times ten protocol that we typically use. As PT's, we tend to fall into that unfortunately. It all depends on the specific patient so I can't really say that I would have a patient start with that because they may have other systems involved for example connect tissue disease or fibromyalgia. You know that you cannot push that person to the same degree as you could to a healthy person, it all depends.

Researcher: How do you know that somebody has benefited from intervention?

Subject: Basically through tests and measures and whether or not they can do the goals that I set out for them. If those goals were accomplished...if their specific goals were accomplished. I basically take my long term goals from what they would like to get back to doing functionally. Long term goals should really be focused on function, so I really took that heart when I went out to practice. So whether it is they would like to return to playing golf, or just even something so simple as going up and down the stairs without pain, if they can meet those goals then my interventions worked.

Researcher: If you had a case that involved other clinicians or other disciplines, in general how have you interacted with those other people, other clinicians?

Subject: Typically as far as PT?

Researcher: If you have worked with other PT's or other OT's, how do you typically interact with other people involved in the case?

Subject: As you can see in this facility, we are a big family and we get along very well. I have no problem going to my colleague and saying "I saw your patient and saw that this was lacking or they had pain from this. You might want to consider doing ultrasound or you may want to consider assessing this." For instance, I saw one of the other therapist's patients that I just happened to be covering. I noticed that the hip and the knee pain was possibly coming from the back. So I actually did an exam on the back and sure enough it was coming back, and I noted it in the notes and I followed up with the PT. As far as doctors go, if I have a certain question, something is not fitting, or the patient is not benefiting from PT, I will either call them or send over the re-evaluation report. Sometimes I do recommend as well that they consider seeing someone that can help as far as emotions go. That can play a huge role in what their prognosis is in PT. I see a lot of depressed cases and typically those cases do not

get well as quickly as they should according to the literature per the PT guide standards. You ought to refer them to other disciplines.

Researcher: You said that you are competent to proficient. What would make you fully proficient?

Subject: I think experience would make me fully proficient. I think that it would have to be experience because right now I would like to take more clinical education classes specifically on joint mobilization and on things that I feel I am personally lacking.

Researcher: Do you have an example of a person who is already proficiently solidly?

Subject: Solidly, I would say the other PT that is here. I can say at some times he will also miss-diagnose in a different direction, but typically he is proficient.

Researcher: If I were to stand outside the window and watch you work, what would you look like?

Subject: [Laugh] Probably a chicken with her head cut off! It depends on what day.

Tuesday's and Thursday s are slower I would probably be sitting at my desk with literature. I am very interactive with my patients. I like to make them laugh. I like to give them that personal feel almost as if we were friends. That is an important part of it to make them feel comfortable. But I am constantly watching them if their technique is off for a certain exercise or if they have a, specific, such as if they are coming in their knee and I am starting to get shin pain with this particular exercise I would have them do that exercise and watch if the knee is going into valgum or varus, seeing how the foot is place and basically taking an overall look at the approach. I do not take a look at one part of the body but at the whole body. So I do look like a chicken with my head cut off running around to different people. I have been told before that I am the teacher that nobody likes in school when they have them,

but when they get out, they are grateful that they had them. I really push my patients. For instance, the patient that had either a rotator cuff, I will stretch to the max that I feel they need to be stretched. I have been called other names too [laugh]. I have been called the beast or man hands, and as you can see do not have man hands. But everything is for my patients – I got into this profession because of such a love and such a want to help people and my patients so that shows through.

Researcher: Do you think that your actions will be any different when you are fully competent?

Subject: I think I would feel and look more confident. As you can tell I do have a stutter problem that increases as I am fatigued or stressed a little bit. If a patient really challenges me and asks me questions that I am not sure about answering, that stuttering comes out. In that respect I think I would feel more confident in my answers and not fumble so much with the words.

Researcher: Tell me who the expert is? Who are they? What do they look like? Do you have an example of that person?

Subject: It is not really one person. I take it from the attributes of different people. I do not have a set person in mind. But, that therapist is well liked, they know their literature, but they know if something else is going to benefit the patient. They are not afraid to do that. For instance, we know there is so much literature out there that says exercise is the only supported research. Ultrasound really is not, e-stim really is not, joint mobilizations really are not, only manipulations are. Whatever is going to get that patient better, they are not afraid to refer out to other resources. They are not afraid ... when an out side source comes in, they are not intimidated. If I feel a patient would benefit from a chiropractor or an acupuncturist, I

am not afraid to say that PT is not really working and to please go to them. PT is not all-knowing, recognize that there are limitations. They expert is willing to research, accept guidance. A few years under their belt, they have seen many different cases. I would characterize that person as the expert.

Researcher: What do they look like? How do know that you have an expert in your midst if you were watching in the gym?

Subject: Very competent, not stressed out like me. [Laugh] They can handle a good changing schedule. They can see a multitude of patients without feeling stressed out about it and not letting that stress show to other patients. I guess that whole picture.

Researcher: Do you presume the expert comes to the decision about a solid intervention and has the patient benefited from the intervention? What does the expert do differently than you do?

Subject: I don't know if they do anything different as far as the interventions go. I feel like if it works, if the pain is gone, or if they have more mobility then that is how they know that it is working. As far as doing interventions differently, I am not sure about that. I think my skills are more lacking in the whole differential diagnosis area. Let's say if its sciatica versus piriformis syndrome. I had the opportunity to observe one other therapist while I was a therapist as well, and this young kid came in for a stress fracture of his hip. He ended up looking at him in takes of functional activities where we typically do tests and measures and saying this is the diagnosis. He took the diagnosis for granted and pushed it aside and decided that it was his hip but there could be another source. It ended up that he had a sports hernia. Through his questioning what he saw the patient doing functionally, he saw the patient was more tight in the front than in his back. He ended up palpating more regions and

he found that the piriformis muscle was tight – does it hurt when you cough or sneeze, yes – ended up with a sports hernia that could have caused the stress fracture. To me that is more of an expert. He took for granted that the diagnosis said stress fracture of the hip and there was solid evidence or the expert had to prove that there was another diagnosis as well. To me he was an expert. I was amazed that he found that. I did not even remember the piriformis muscle let alone a sports hernia. To me it was a wow and I realized that I have a lot to learn.

Researcher: How did this expert or your concept of expert interact with the PT's around them or potentially involved in a case?

Subject: He was very involved with his patients. He was very hands on. He had a certain amount of manual time. He did not really use a lot of modalities; his hands were his modalities. He did everything based on function, no really open chain exercise. Most of the stuff he did was closed chain to promote a certain movement that they were lacking or a certain activity that they were lacking.

Researcher: How does that person interact?

Subject: To me he kind of came off as cocky and very competent and very confident but he is well liked among the other therapists and the other staff. He also works as a personal trainer. He was also owner of a private facility. He has personal trainers as well as aids under him and one other PT who happens to be his good friend. They all get along great. He would quiz this one other personal trainer to build his knowledge as far as the anatomy and pathology goes so that when he works on a client, he can get the whole picture as well. He helped in educating others, which I think should be a main goal of experts to give their experience to others.

Researcher: When were you a novice?

Subject: [Laugh] In school. I was a novice until I really got my feet wet. My first job was with this company but in southern Jersey. I felt like I was a novice even then until I got comfortable, until I started really seeing patients. And I said I really know what I am doing with my patients. But, until my first rotation... my first rotation was in a sub acute facility. It is not that hard to roll a patient and transfer. Basically safety has been one of my main goals, making sure the wheel chair breaks were locked – I had that down pat. So I got major points for safety [laugh]. As far as treatment and modifying the treatment plan and assessment – assessment was hard and I hated writing assessments. I did not know what to write; I did not know how to assess. I would definitely say that when I was in school, I was a novice.

Researcher: What did you look like if I were to watch you function in a gym?

Subject: [Laugh] You can picture yourself, and you can see how far you have come. I mean I really followed my clinical instructor. I did not have a brain of my own. I could say that I recognized that a wound was not healing but I did not know how to categorize it. I would not be confident enough to tell a nurse. I was very intimidated to go and talk to other professionals except the expert or other PT's because I was one of them.

Researcher: When you first interacted with the patient as novice, what were you like? Did you even introduce yourself?

Subject: I was very unsure of myself! [Laugh] I waited for my clinical instructor to say this is blah, blah blah. She will be treating you today. I was very timid and very shy and I stuttered in stressful situations so it really came out bad to the point where they had wanted to me to apply for a disability so that a clinical instructor could not fail me for stuttering. A different topic in itself.

Researcher: What was happening when you left the novice stage and you became an advanced beginner? You were not a novice for too long so what happened?

Subject: I guess I became more confident in myself and that's when I became an advanced beginner. When I could start picking out what was wrong and start talking to other professionals. That is when I became more advanced.

Researcher: Was there a difference when the novice was trying to function in the gym versus the novice?

Subject: Yes, I did not hang on to my clinical instructor for dear life. I was able to go into the room and get the patient by myself. I was able to go the nurse by myself for instance if the patient had a feeding tube or IV, I asked the nurse to unhook the patient. I was more comfortable in treating and with my intervention skills not thinking that I had killed the patient [laugh].

Researcher: Advanced beginner could still be a student?

Subject: Oh yes!

Researcher: Your decision-making as far as understanding the benefit of your interventions, where were you then?

Subject: I did not really take the long term into consideration or the patients goals in mind. It was more if I saw the impairments being corrected. If I saw the ROM improving I knew that I was doing a good job. If the patient told me that they were feeling better, I was doing a good job and the interventions were working.

Researcher: Were you able to introduce yourself to the patient?

Subject: [Laugh] It depended on the patient. I remember one patient who was very difficult and I was so scared of him because of the horror stories I heard about him. By the end of that

clinical, he gave me huge hug and he actually ended up giving me a present for my going away. It was basically... I learned a lot from my Mum to kill them with kindness, and that was a mantra that I used in treating difficult patients.

Researcher: So you were able to bring to mind this philosophy?

Subject: Yes!

Researcher: Do you think there is a time frame attached to these levels?

Subject: I think it is so individualized. I mean it is hard to say that within five months or within a certain amount of clinical experiences, you should be an advanced. Hopefully by the time you graduate, you should be a competent clinician if you are going to go out into the world and treat with your license. But, in this amount of weeks you should be here. I am not sure how that goes because it is individual for each person and how they manage facts. Just me alone, one of my hurdles was my stuttering. That might not go Joe Shmo who has no problems speaking, but he has problems in other areas.

Researcher: When I say productivity, what does that mean to you? What does it conjure up for you?

Subject: [Sigh] Very negative feelings! [laugh] Just because I feel like in today's outpatient society... most outpatient facilities look at quantity over quality. That really upsets me because I am more of a quality type person. I would rather see ten patients and know that I have given them the best treatment that they can have rather than twenty just to get the numbers in. As far as the word, it has a very bad connotation for me.

Researcher: Do you think the word productivity is different depending on where you have evolved?

Subject: Yes. As far as the student goes, I was exhilarated when I saw seven patients! I was thrilled when I saw seven patients on my own, a very positive feeling in that respect. I can do this. I can be a real PT. As you do this and get into the work field it is more about the numbers and how much you can make for the company or for the office. It then develops a negative connotation.

Researcher: When I say motivation what does that mean?

Subject: Willingness to learn! As far as me or as far as patients? Because I think it applies to both. As far as me personally, I love to learn. If I could be a full time student, I would be. If I don't know something, I will take the initiative to look it up or take the initiative to someone who does know about it like a specific diagnosis or protocol. As far as patients go, it is hard to keep... as I was talking about the depressed patient earlier... it is very hard to keep them motivated, but I try. You have to be optimistic especially now. There is a patient that I have who has bilateral knee replacements. He is very depressed and had depression issues before. You have to show them the advances that they are making – “look you were able to pedal the bike fully today, or you were able to get up on the table by yourself today”– it is a huge part to treating keeping the patients motivated and reaching for their long term goals.

Researcher: Is there a difference in motivation as you evolve?

Subject: Yes. I see it more now as a clinician as far as it was very hard for me to keep patients motivated when I was a novice. A patient would say I really don't feel like doing PT today. I would say ok and walk out the door. They did not feel well, and it was a blessing to me. I struggled at first. Now you try to get to the root of why and you do try to keep them focused on their long term goal and try to get them to come in. If they say, they feel like doing this for this long while. Well I say that it is not enough – do it! I feel I have developed

a harder personality than before, I was very accommodating, and now I am more assertive in my role as a PT [laugh]

Researcher: Should I be asking these questions?

Subject: Sure! Personally it has made me think about who I am and how far I have come.

That has helped me tremendously. In this company we don't do individualized assessment. It is basically what the director assesses of you goes. They don't have you do a self-assessment like we did in school for the CPI.

Researcher: You think this process should be a self-assessment or should someone be telling you?

Subject: I think it should be both to tell you the truth. I thought I really got a lot out both, writing down what I thought I was, you asking me the questions, and then hearing your perspective as far what the certain words meant as far as you know, seeing the maxim – think that helps.

Researcher: When you say both, do you mean the self-assessment – is there a certain way or certain people who should tell you and if it is a self assessment coming from an external source?

Subject: Yes, I feel that there are always things that you can work on, and there are always things that you could possibly do better in or certain skills that you may be lacking that someone else may notice. I have always been for constructive feedback. In that way you should always be willing to learn and willing to hear especially what the supervisors or directors above you have to say about what you could learn or make better. I personally would benefit what hearing from someone else thinks.

Researcher: Anything else to add?

Subject: No, just good luck with your project.

Subject 206: New DPT

Researcher: You have read through the general items of the statement of informed consent and I have received your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: December 10th, 1980

Researcher: The highest PT degree that you have earned?

Subject: DPT.

Researcher: The College or University that you attended?

Subject: University of Medicine and Dentistry of New Jersey.

Researcher: Have you earned any specialist credentials or certifications?

Subject: I have CSCS that I had for a few years before the PT degree.

Researcher: What year did you earn that?

Subject: 2002.

Researcher: The amount of time that you have worked in the PT profession?

Subject: Since 2005 with my PT degree. Before that I was in physical therapy but not a physical therapist, just as an aide from a freshman in college so nine years. Nine years working pretty consistently.

Researcher: The amount of time that you have been a licensed PT?

Subject: Two years

Researcher: And the amount of time that you have been working in the outpatient arena?

Subject: Two years as a licensed PT

Researcher: Have you taken any courses over the last 2 years? Orientation?

Subject: A couple of courses. I went to a course on shoulders, a course on different areas of sports specific things and a course on hips.

Researcher: Have you participated in any kind of research?

Subject: No, outside of school curriculum no.

Researcher: Have you participated in clinical education, college teaching or mentoring of staff?

Subject: Yes, I have a student from Seton Hall University.

Researcher: Can give me an example of an interesting case that you have tackled recently?

Subject: One of the interesting cases that came in a few weeks ago was a patient with a diagnosis of carpal tunnel syndrome. They came in with EMG studies to back that up from a physiatrist. When she came in she had hand numbness but she was complaining of numbness throughout her whole hand and arm, so I examined further and found symptoms of thoracic outlet syndrome and some mild stenosis. So I just skipped right to her shoulder and I did not treat anything for the wrist. She started getting better pretty quickly. Now she is symptom free of the numbness, but she still has the poor posture and some intermittent symptoms.

Researcher: I am going to dialogue with you about your experiences as a physical therapist. I would like you to recall some the experiences that molded you into how you currently work. Looking at the five levels of professional development, can you tell me where you might fall?

Subject: I was looking at that for a while and I know that being out for two years is not that long, but in reading the paragraph I think I like proficient clinician. Mainly because I feel the

language bases on experience, recent events. I think that is basically the way that I treat and the way that I go about a case. Kind of compare it to something similar or my experience may be based on what I have recalled in the passed and that is how I treat, pretty much.

Researcher: How do you interact with a patient when you meet them for the first time?

Subject: I like to be open and friendly and greet them right, away introduce them to me and the whole staff. I like to keep things on the lighter end. Then once I try to get to them in a trusting way and enjoy my personality and then go into their diagnosis and get down into what their ailing problem is. I make sure that they are feeling comfortable.

Researcher: If I stood outside the window and I watched you work, what would you look like?

Subject: I smile and joke around a lot with the patients and I do a lot of hands on so I probably would be stretching somebody out, and I would be smiling and joking with that patient.

Researcher: How do you decide what treatment or intervention would best benefit your patient?

Subject: A lot of times I go based upon what an old experience was or what generally happens. What feels good, we do that, what does not feel good, we don't do that. It is somewhat trial and error in a specific matter. This has worked in the past. Let's try it and if it does not work, we could go to the next one.

Researcher: How do you decide that your patient has benefited from your intervention?

Subject: Results! If I am working with a patient who has pain and I am working with the pain, if it diminishes the pain or if the patient is looking to gain ROM and gains ROM.

Depending on what the goal of the treatment is and if we achieve that goal then that is the intervention that I use.

Researcher: How do you interact with other PT's or other disciplines? It could be around a case or just in general, daily routine or going to a meeting?

Subject: I have not always been in this office and in this office. I am the only PT. In the company there are a number PT's that I know well and talk to. I often call them suppose. I have an interesting case and I have a question about it. I call to see if they have had any experience in that case. I might call them and ask. Physicians I talk to pretty frequently, the ones in this area. Part of my job in this office is to make sure that the patients are coming in and that we keep a good relationship with the physicians around. I go and have lunch with some physicians around or I speak to some doctors by e-mail pretty often. Yes, it is a lot of responsibility but I enjoy it. It is nice talking to people from a different aspect. A doctor might have a different point of view on the same patient. You are seeing them and thinking of going in this direction, and the doctor might for certain reasons think we should be going in a different direction for specific symptoms. It is good to bounce things off people to get different views on things.

Researcher: Take a look at the next descriptor that you would like to discuss.

Subject: I guess the competent clinician, because that was the one that I might be going toward.

Researcher: What made you decide that you were proficient over the competent?

Subject: I don't know that I put the competent one out because of something that I did not agree with. I did not look at them as a level but as a descriptor, I look at the one that I treated based on experience that agreeing completing the competent.

Researcher: What did you see them as then?

Subject: I know that they were trying to make them a level but I did not want to bias my opinion. I did not want to say that I was a novice because I have not been out too long and I did not want to say that I was an expert because I think I am a good physical therapist. I wanted to just read the description. I know that at the expert one, the expert has difficulty explaining their treatment rationale... and I explain everything that I do to the patient so that is definitely not what I am. That is how I perceived it... explain rationales. I am thinking of it as a negative to not explain it but I understand what they are getting at.

Researcher: Who is the physical therapist expert then, understanding that this is just a framework from Benner?

Subject: I believe that the PT expert is the PT therapist who achieves the goals that they want with the patient and the patient trusts and gets better with help of the PT, and it is a good experience in general for the patient. And the expert sees the patient as a whole and is able to pick up something that somebody else has missed because they can look at things from a broader spectrum. The expert is knowledgeable in all fields and is able to apply that knowledge and relay that knowledge to the patient so that they can then better themselves.

Researcher: It is not necessarily so much of the intuitive person. Are they intuitive at all?

Subject: But it sounds as though they can impart that knowledge?

They can apply that knowledge

Researcher: Different from Benner?

Subject: The expert clinician can explain, obviously deduce and understand all knowledge but explain it to the next person so that they can then become an expert.

Researcher: The expert passes on the knowledge and wants the other person to learn.

Subject: In treatment we pass it on to the patient, and the expert passes it on to the patient. In teaching or in the education parts, as I have a PT student, I pass the knowledge on to them and make them a better PT.

Researcher: How does the PT expert interact with other clinicians?

Subject: As equals even though a PT might be an expert or on the top level, they are always able to learn more. A PT who may not fit in the level as an expert, they still might have a certain treatment or experience that can better the expert themselves. A two way street!

Researcher: The Pt expert explains to folks around them?

Subject: Yes.

Researcher: How does the PT expert interact with other disciplines?

Subject: Smoothly [laugh].

Researcher: Is a PT different from you (proficient) within their interaction with other disciplines?

Subject: Maybe, I don't know. I am not perfect at interacting. I know I am not expert level personally in interacting, yet because I am not experienced enough yet in that sense. I think they would be more confident, more putting forth of their opinion and not taking others... for example what I do even if I tiptoe around topics instead of saying something the right way but putting forth my opinion tiptoe around because I do not want to overstep my boundary or make the physician think that I am thinking differently or know more or have a better sense of the patient. They have had a chance to build more confidence and a better relationship. [COMMENTS OF ENCOURAGEMENT] I am not stepping down but there is a way of saying something! For example the patient that had the carpal tunnel that had the thoracic outlet, I know the physician, I worked with him and for him before I was in school. I had no

problem telling him that you missed something here. Another physician who I do not know so well and has a different kind of personality, maybe I would say I think this person maybe has now come in with signs and symptoms of this and maybe their symptoms did not develop when you were with them.

Researcher: If we were to stand outside the window and watch the expert in here working, what would he/she look like?

Subject: I don't know. They would be handling whatever is on their plate and all the patients that were there and all the other duties involved with easy and without confusion or getting excited, just smoothly. Being able to communicate with all of the staff and patients well so that the patients were not afraid to tell the PT anything and the PT was not afraid to tell the patient – able to explain everything well. The staff would enjoy them as a PT and you know that the patients are getting better.

Researcher: Their interaction with the patient on the first visit?

Subject: I guess it would be comfortable and it would be communicative. The patient would leave satisfied. So the first time they come, if they don't know what is wrong with them they might know what is wrong with them and what is ailing them – know how to get it better or know in what direction to go in order to get it better.

Researcher: You raised the competent? Anything that you would like to say about the competent? When were you competent?

Subject: don't know!

Researcher: Were you working here as a director?

Subject: I think I probably became competent right around the change. I think I felt myself as competent. In my situation, my vice president, he offered me a position and said when you

are ready it is yours. I took a couple of months after he said that and I said I was ready and the change was made. I probably felt I was competent at that point in time which was this summer.

Researcher: What do you think that happened about that your vice president recognized?

Subject: I don't know if he recognized I was a competent clinician. I mean he recognized the way I thought of myself as a competent clinician. I think he recognized that the patients were getting better, and he liked me. He recognized that I also had a feel for the duties of being a director, making relationships with physicians, knowing about billing and different reimbursement roles and a little bit of the roles outside of being a clinician. But as a competent clinician, I think that is what he felt about me. But I think I felt when I became a competent clinician is when I realized that I was confident with all the patients that came in. You are always going to find that you are not going to figure out right away, but I was still confident in knowing the direction that that patient was going to go and finding the answer for that patient. There was going to be those patients who were not going to get better but you were going to know why. I feel like I reached a certain point and I told him. That was this summer.

Researcher: Do you think your observed actions when you were competent were much different than they are now as a proficient?

Subject: I don't think it is much different. Now I am thinking about it and where I was working. The way they would observe me there is the same as now. A little less stressful and more time manageable. I managed time and was less worried about if I was going to get to the next patient on time. I guess there is less stress in my face now as opposed to then.

Researcher: Was there much difference in deciding the benefit of your treatment or intervention. How you got there? The way how you went about examining, what to do with your patient and recognizing that they were getting better? Now that you are proficient, are they better?

Subject: I don't think so. It is specific for each patient. You could get a patient better or you could not get a patient better. I could get a patient with a lumbar radiculopathy better but not better, better. He can get better but not better than that.

Researcher: What is the difference between competent and proficient? You have improved, and your characteristics have changed – you have learned more, more time, more experience, and seen more patients. What is the difference that this time has allowed – how have you grown?

Subject: In the patient results! Patients might be happier and maybe they got better quicker. Maybe the patient understands more. Maybe I have more people better as opposed to the patient being better than he would have been six months ago but more volume of patients getting better. Maybe the patient is happier and maybe not only because of results but maybe because they have a better background or understanding of the time frame of what they have been taught and how to get themselves better.

Researcher: Let's take a look at novice and advanced beginner? Who are those people?

Subject: I think the novice clinician is a student. This description reminds me of the student who I have now who is on his first clinical affiliation. At this point in time, he is obviously a novice but he is not able to think or analyze the situation yet at all. For example he is able to look at the situation in a measurable parameter, but he is unable to recognize how and why the patient got to this point. He is able to measure that the patient's ROM got better, but he is

not sure why. The advanced beginner might be a beginning clinician right out of school, who has not had a lot of experience and has to be. For example, when I first came out of school I was with a therapist who I asked a lot of questions and was pointed in directions for a lot of treatment ideas. I was uncomfortable being the only therapist not just in the office but being uncomfortable with being the only therapist there for a couple of hours just in case something happened. This would only last for a month or so just to get over the beginning jitters.

Researcher: What would you look like if I were to stand there and watch you working?

Subject: I guess I would be somewhat taking a longer time to think about what was going on. If a patient asked me a patient asked me a question that I did not know the answer to, maybe I would get nervous and maybe explain it in a certain way that was not very well explained or ask the therapist that I was working with or looking it up in a book.

You are looking at your schedule for the day and the patient comes in with diagnosis. You look it up before the patient comes in, take a long time to write notes. A stressful day.

Researcher: How was your patient interaction at that time?

Subject: I think it was good but not sufficient. It was ok and it was not as if the patients did not like me or were not getting better. They were getting better to a certain extent. The things I know now and how to say things to patients and how to not say things to patients. What needs to be explained and what the patient wants to know. So if the patient is looking for or looking to hear or what I have or have not told them. I think that is very different now.

Researcher: Your decision-making then, choice of treatment, recognizing that your patient has benefited from what you have done? Advanced beginner?

Subject: I think it was zoned in. Instead looking at something and thinking a treatment idea, I looked at it from a narrower point of view instead of broad. Instead of thinking of the joint

mobs for treating a shoulder patient, I think about, does this patient need joint mobs or does the patient need a joint mob of his elbow or is it a back or neck problem for why the patient has shoulder pain. Instead of narrow minding my treatment ideas, I have broadened the aspect.

Researcher: Do you think – you told me- there is a time line attached to this?

Subject: When you think of the words novice etc., that language shows a time line. It shows a level. The explanations I did look at as a time line. When I took out the word competent and other words and I read everything as clinician, you could have jumbled them up according to the way they are defined. There is somewhat of a time line because experience impacts treatment ideas and when someone becomes an expert.

Is this time line or treatment ideas the same for everybody/?

No. Different people or clinicians in every sense of the word do want they want with their experience. You could send three people out into the world with the same exact experience but what they do and how they learn from that experience is completely up to them. 20 years experience vs. five years of experience does not mean that that person has learned more, it just means more years of experience maybe to get to the same point.

Researcher: What do you think helps you move through these descriptors or levels? What made you improve?

Subject: I guess motivation! Motivation and knowledge and experience. You take every bit of experience and try to remember every bit of it. You remember it so you can learn from it. If you don't remember that patient you had two year ago, you won't learn from it especially if it is a rare case. Changing and making changes if you are not motivated to change or do what is necessary the time line will go further and further. Now if you are motivated to make

change and achieve your goals get further and further and better your self consistency then your time line will move faster.

Researcher: Has your perspective of motivation change since you have improved?

Subject: Clinically and professionally, motivation has changed definitely. Motivation has changed from being motivated to have good time management, being motivated to make the patient like me, motivated to get the patient better, but now motivation has changed to show that motivation and have the staff be motivated. My duties are not to just motivate myself and help the patient, but to motivate the patient to get better, the staff to better themselves, motivate other people that I work with around as well. Also motivation clinically, professionally, so am I motivated to just treat this patient or a bunch of patients. Am I motivated to have my career develop, motivated to treat a whole slew of diagnosis or now do I want to be able to treat all diagnoses? Do I want to know all or do I just want to focus on the knee or back.

Researcher: When I say productivity, what does that conjure up?

Subject: Efficient results! Productive is if I see a large amount of patients and get them better and efficiently according to time. You can be productive with a small number of patients but time is also related to that. Obviously quantity is related to that also.

Researcher: Does the meaning or perspective of productivity change as you improve?

Subject: Yes on a large. The scale would go larger according to this. The number of patient that you could treat because of time. You can treat more patients as you move through this and be as productive and as efficient. Suppose I might be able to treat 10 patients a day and I could treat 20 patients and get them better. I suppose I could treat 30 patients a day and get

15 of them better and so on. You go on and more the patients to get better in the least amount of time.

Researcher: Should I be asking these kinds of questions in general?

Subject: Of course! I think asking these questions brings out a point that I was not asking myself these questions. I think in every walk of life or every professional should be asking these types of questions about themselves.

Researcher: Should describe you or categorize you?

Subject: Its natural but I am not sure if it is necessary. An ideal situation is that you should always be trying to better yourself no matter the category as long as you know that you are always trying to better yourself. It is natural to categorize someone because we want to show that and show improvement from one level to the next. It is a larger scale to say how many levels, how can you categorize and say there are only three or five levels it is different for each person. It is not necessary.

Researcher: Anything else to add?

Subject: No not that I could think of.

Researcher: It is worth you asking yourself these questions?

Subject: It is worth me asking myself or anybody else. If it takes the categories to ask the questions, it may be necessary. The self-assessment piece is about this.

Subject 207: New DPT

Researcher: You have read through the consent form and I have received your signature?

Subject: Yes.

Researcher: What is your date of birth?

Subject: September 23rd 1973.

Researcher: Your highest PT earned?

Subject: DPT from University of Massachusetts, Lowell MA

Researcher: What year did you graduate?

Subject: 2003.

Researcher: Do you have any certification or specialist credentials?

Subject: Not at this time.

Researcher: How long have you worked in the PT profession?

Subject: Two and half years.

Researcher: Were you a PT tech or anything?

Subject: Yes, a couple of months here and there. Three years total if that.

Researcher: The amount of time that you have been in the outpatient arena?

Subject: Two and half years, maybe a little bit more considering clinicals.

Researcher: Have you completed any course work or CEU's over the last two years?

Subject: Yes.

Researcher: What was the orientation?

Subject: It was actually outpatient. The McKenzie course. The reason that I don't take too many PT courses is that you have spent time learning how the [workman's] comp system works. We go to a lot of comp specific programs.

Researcher: How many do you do a year on average?

Subject: At least two or three a year.

Researcher: Are the courses geared toward evaluation?

Subject: It is more to learn how the comp system works. There are people who present who are physical therapists, almost like in a combined sections format where a bunch of different people present at different times. They will talk about what are the ways you do an FCE, what new treatment they have, etc. For example we had a physician discuss new disc replacements, how the outcomes are and what we would expect to see as therapists.

Researcher: Have you participated in any clinical education, mentoring of junior staff, or any college teaching?

Subject: I will help out with new hires but as far as being a mentor student, not yet. Here it is combined, one person to report to and everyone else to help you learn.

Researcher: Can you tell me about an interesting case that you have tackled recently? Pick one that stands out? I want an idea of complexity.

Subject: I have a patient now with which I am having conversations with the insurer and sometimes with the employer and patient care coordinator here. He is a status post biceps tear and he has a very heavy job. The complexity comes with not so much the repair; he has full ROM and good strength and no real positive findings. The issues is to get him back to a job where he has to push, pull and roll, forty pound barrels of wet carbon. The job description said that he did not do any lifting. All he had to do was push and pull, but what the job description said that he had to do was wrong. We had to go back to the employer. And the employer said that it could be up to 400 lbs and the insurer had to send an addendum to their report saying that they made a mistake. Then there was another site visit scheduled I will attend along with the insurance company, the patient and the employer so that we can come to some consensus about what needs to be done here, demonstrate what he can safely bring him to here to see if he can do here and see if he can do that job. Four hundred pounds after

biceps repairs, it is going to be tough on him. But, those are the types of things that I just did today. I spent about 45 minutes on the phone with the insurer and then meeting with the PCC and coming up with what we can do for this guy. How can we help this patient?

Researcher: What is a site visit?

Subject: This one for me won't be as bad. I will be just an observer. A site visit, you can go there and you look at the job that they do. Whatever the patient may have, you try to switch or make it easier for them such as an assistive device which he has. Is it always available to them, and he sometimes can't use them. Or the way he does things, maybe he lifts carries pushes and pulls it. Maybe he can do something else, like we do desk set ups. It is going to come to we think that we can bring somebody who has had that level of repair down to this kind of work. That is what the site visits are for, and they are actually quite interesting. Good ergonomic assessment.

Researcher: You have the five levels of professional development in front of you. Apply one of those levels to you. Where do you fit?

Subject: Because of this job, I had to focus on this particular job; I don't see myself so much as a novice clinician any more. Some place in between advanced beginner and competent clinician because the cases are so complex. I had to grow so much faster, I had to see physical therapists in situations that I am not; I had to learn so much more other than my PT education in order to do this job. It makes things very complex! I had to learn how to manage cases and manage patients and be aware of all the aspects that go into a patient also and then to address them.

Researcher: Can you tell me what you had to learn beyond your physical therapy education? You don't have to go into great detail.

Subject: Well basically you had to learn the courts and how the courts manage things. You had to learn that there is a big psych component here and where we have social workers and psychologists on staff. We have 2 psychologists on staff, but what I had to learn really quickly or much of anything was about chronic pain. The first patient that I had when I came in here had a severe level of chronic pain, something that had been bothering her for a very long time. So right off the bat, I had to learn to progress this patient and get what was best for her. Now if I saw her today, I would do things differently than I did two and a half years ago because of the learning curve. If it was not for that learning curve, it took me and two people who started with me. It took us about six months for us to not have our reports read every day. We had to make sure that we were not saying stuff negative for the patient in the court system. In this area, if you go to the Donnelly Center, it means there is a negative stigma attached to it, meaning that you are here because the insurer did not want to pay. No one pays for them anymore so they send them here where we are impartial. It is no longer going to be shake and bake therapy. A lot of times people get hot packs and rarely see the therapist. Here people get a lot of communication with the therapist. I had to learn how to do behavioral management as in positive/negative rewards. People show a lot of pain behavior complaints and they want to progress. You have to learn how to approach these people where as therapists pretend it does not happen. As opposed to someone who needs to understand that of everybody. There is a reason why this person acts this way. What can we do to change it can we change it? You then have to work with all members of the staff, nursing and even the medical director. There are times when we all sit in this room, sit here and discuss one patient. We sit here and say this is where we are at. Sometimes some of the therapists who have been here the longest really don't know how to progress the patient and ask what they

could do. It takes a lot of work between the staff to come up with what you can do with each patient. I had to learn.

Researcher: The complex framework that you just described, places you in the advanced beginner?

Subject: I would say that! Maybe a little bit more, but I would not want to put myself there yet. I have a lot to learn and a lot to become more comfortable with yet as a therapist. The problem with this job is that there is not a lot of hands on. And I think that is a component that I am losing here. I have already come up with courses to attend to work on that, and I have taken a small job outside of here to work on my manual skills.

Researcher: When you first meet a patient, what do you do?

Subject: I introduce myself and shake their hand. I tell them “Welcome to the Donnelly Center” kind of what I did with you. I show them around the center, sit them down and we begin to talk.

Researcher: If I were to stand outside the window and you watched you in a session in the gym with a patient, what would you look like?

Subject: We do a lot more exercise than hands on. A lot of it would be patient education a huge majority of it. Me explaining to the patient they are doing and why they are doing it. Asking the patient what their goals are what we are hoping to accomplish; if there is a behavioral component to it we try to look at and manage their pain. It can teach them how to do relaxation. Depending on the case, I have some people laying on the mat doing deep breathing, diaphragmatic breathing to help control their pain. You may see me down in the work hardening room working with a patient on body mechanics, finding an alternate way of doing things because they cannot do it because of an injury, compensatory strategies etc. It is

very mixed what you are going to see. It could be me sitting there with the flow sheet asking the patient what they are going to do next and soon there are questions and telling them why and reinforcing what they doing.

Researcher: How do you decide on a particular intervention for a patient?

Subject: I start off with my basic little bag of tricks that I had when I got out of school. Then I started adding things that were not your classic PT type stuff. I started working with things that actually worked for the individual. There are some that I had to throw out. The patient is just not ready to do that, the patient did not get a benefit from it and I had to be flexible with that. I don't have a set protocol with each person. I actually use what each patient needs. I try to be focused with each person, but the patient may be deconditioned. Like I explained I could be seeing some one for six months to a year. I see people two, three or four times a year. I have some that I have been seeing with an injury for 1997. So if you have someone who has not been working from 1997 for a deconditioned perspective. The average patient that you see one to two times a week would say I gained fifty pounds since I have been out of work. This person who has not been working since 1997 has just been sitting on the couch eating. Rather than just specifically training for slap injury, what are we are going to do? It becomes a bit more than that.

Researcher: How do you know that your intervention has benefited the patient?

Subject: We try to do it through objective findings, but that does not always work because a lot of our patients who come here do not have any objective findings. In those cases, it is a behavioral issue. If we are modifying the behavior, their behavior is decreasing we know it is working. If it is a regularly patient coming here for a regular injury, it would be a decrease in the objective findings and the patient report.

Researcher: You talked about the interaction with disciplines, how do you interact with other PT's maybe around a difficult case?

Subject: That is pretty easy. We have a lot of people on staff, a little niche of people. We tend to go with our contract for the most part. But, I will typically talk to my director who is not on my contract, a terrific therapist or the other people who are in my section. We talk about the case and what I could do, what different approach could I do and what I could do differently. And that is what we do in this room too when we meet with everybody from all disciplines. It is not always me, I could be progressing the patient fine, but there is another aspect, say in psych nursing or voc. It is not just therapy involved in return to work in terms of them getting some place. We have our daily session where we meet and talk about what we can do. It is less of me asking and people asking me what we can do. It is great.

Researcher: You are more of a resource?

Subject: Starting here and there!

Researcher: But it is starting for you?

Subject: It is different because they would not come to me to ask is about how to perform ROM, but it is the other aspect of the job of asking what the court going to say if I write this. Is this written correctly or what should I do with this patient who is not progressing. What would you have done – I come up with a plan. It is not always me but it was me for a long time asking, what do I do with this patient?

Researcher: Who is the novice them? Give me an example of the novice PT, then tell me outside of here so that I have a framework?

Subject: Here? I would think of someone in their first year who has not really been exposed to a lot or maybe if they worked in the setting and saw the same type of client. They are not

going to have that broad exposure. They are still going to learn and progress; there is no one like that here. The newest person behind me I would consider a novice up until a couple of months ago a novice, because of the complexity of the situation but he has grown a lot. I think he has grown because of his experience in rehab and some outpatient outside of here and the stuff he learned, he progressed more quickly as a new clinician. He asks me questions and I ask him question and we gain from each other. I remember feeling like a novice. I remember seeing people in clinicals when they were brand new out of school, and they had a certain kind of look about them.

Researcher: What did they look like?

Subject: Kind of like a deer in headlights! [Laugh] And that had to be me for at least my first year. Maybe after that you start to become more comfortable. One of the comforts of this job is that you learn to go to other people. Even our director will come to us and ask about a patient. That made a big difference to me that you did not have to be embarrassed about not knowing everything when I felt that I should.

Researcher: Was that the occurrence that made you know that you were not a novice?

Subject: Yes, that plus when I felt confident with my approaches. I did not have to ask everybody if I was doing that right especially at the point of dealing with the courts and not having to be scrutinized about what I write or what I do. But I still to this day question if I am doing this right and am I doing what I should be doing with this person. Unfortunately it is the way of the world here.

Researcher: How does the novice decide what is the best intervention for the patient?

Subject: I would say by what they had learned up to that point. If they did not feel comfortable with that, they would have to ask someone with more experience and better

equipped to deal with the case. You are not just dealing with someone who has an ACL repair. You are dealing with an ACL repair with a whole lot of other story to it. Don't get me wrong. If you go to a regular outpatient clinic, you are dealing with the same issues. But here it is personified because you are dealing with the special of the special. Don't get me wrong, I love these patients, I grew up with these patients. I grew up lower middle class, and I understand it is better to stay out of work and care for your baby and not have a job. You need to take care of your kid and I understand them. At the same time I have to be that person to say who should do this or who should pay for this. It is really not my decision; it is up to the court. All I am is the person who has to get to the bottom of this, and you don't always know. Maybe 60% of the time you don't know what is dragging down that person in addition to their injury. It could be that a person just has a true chronic pain, they are in pain and they feel it. There is no real physiological reason why, but they are in it. You just have to go slowly and re-teach them, pacing, goal setting. It took me a lot time to learn than. Every so often I will talk to the psychologist and she gave a lot of stuff to read. I have a lot of stuff at my desk to read. I know the basics of the gate control theory of how we deal with it, a lot of imagery, a lot of deep breathing and mediation type things with them, and it helps. If you have someone with real chronic pain who wants to get better, you will see a difference, not a big difference, but you will see the small increments of difference. The person who is not going to get better is person who no matter what you tell them, they think that they are not going to get better.

Researcher: When you say small increment change, how did you measure that?

Subject: Function here and at home. If you say that you lay on the couch all day, and I have a taxi. If in a month, you drove yourself here and you are cleaning the house, those are huge

steps for someone who has a true chronic pain issue. And you are also lifting fifteen pounds here and you are able to participate fully in an evaluation. Maybe you have someone who you just have the subjective; you watch them move because you can't do anything because they won't tolerate it. They will cry or they will demonstrate some sort of behavior that will stop you that you take for granted.

Researcher: How does the novice know that a benefit has taken place? What are his/her level of skill?

Subject: From what they have found objectively. If someone came in and you have specific objective findings of ROM, that would be the way for a regular outpatient. For here it was function, and it took me a while to figure out the function issue. For all my patients it is a number of different things that I really can't put down one thing to know if a patient is benefiting. Some patients were lifting lifting eighty pounds and consistently but they are still unable to do their jobs because of one reason or another. You come up with a plan of why; you can't go by their report; you can go by what they are doing. We have tools that we can use to see if they have an accurate perception of their function or not. I really don't use those tools that much because it takes away from what the patient is really feeling. You could say that this is what they can do, and you are sending someone back to work who has a poor perception. In those cases, if a patient is telling that he has to lift eighty pounds, one hundred times in an hour, if they can lift eighty pounds, one time an hour over a couple of weeks and they have a successful FCE but they can't do their job, it is my role at that time to put it the doctors hands. We put it in the doctor's hands anyway but I say that they can do their job but this is what I do. This is what he says. Do you feel comfortable releasing this patient?

Researcher: What about the competent person, who is he/she and what does he/she look like?

Subject: They seem more focused and I don't know if we really see that so much here. I can think of one therapist who started a week before me who is very focused on their treatment. Focus on their treatment is what this seems to me. I could do that but I would not be getting the entire benefit for the patient as a whole. I am not saying that she does not do that. She is an excellent therapist but that's how I would consider them.

Researcher: How did you decide that she was competent?

Subject: I will think of somebody else. She has been doing this for a long time and knows the ins and outs of the system. Excellent clinician, who does specific treatments to benefit the patient that really does not differ from me. I think it is her knowledge base being exposed to the things she has for a longer time. Where there would be things that I would have to ask somebody about, she already knew. Situations arise where she would know what to do right then, whereas me, I would have to ask if I was doing this right even though I know the answer but want some affirmation every so often. If it is really something complex and I am not sure about, I will actually ask somebody to make sure I was right. She would just go straight forward.

Researcher: Would she look any different than you while interacting with a patient?

Subject: I want to say no actually. I think that we might say things differently but when the day ends we will both say similar things to get the point across to the patient. We say things differently and it may be done more efficiently, I am sure someone else would have to look at that, that is tough to say. I explain things very well to my patients, but I am sure she explains them better because of her experience. I still think that we get the same point and information across to our patients. When I first started she was much more comfortable telling patients things I did not think was something I should be doing. Telling a patient in a nice way that

you could do more. You are not giving me your best effort. It took a long time for me to learn that you could say that in a nice way. I will say if someone come to you and do an FCE, and the patient is giving a poor effort, she would tell them but I would put it in their hands. In time I learned that we need to get what is best for the patients even though they don't know it. You have to let the patient know that. You have to write a report and ... that is the gist of it. I think I am getting there but she is has had that conversation over and over again and believes whole heartedly, and I will follow it too.

Researcher: Is she different in her interaction with other team members?

Subject: She is kind of like that with everybody. She is very straight forward personality and I don't mind it. She may not always have the best rapport with her fellow clinicians. But she will ask me to read something. She butts heads with people because she has strong convictions. The way she wants things done, most of the time she is right. For me I would approach it differently.

Researcher: What about the proficient clinician, who is he/she?

Subject: I don't know if there is anyone here at this level. Maybe at the expert. They are long-term therapists and their knowledge is way beyond mine.

Researcher: In your eye, who should be proficient? Characteristics? This setting?

Subject: That is tough. If I look out at a regular treatment, if you look at them you could see who by their interaction with their patients. What I was told in school is that as you go up the ladder, little by little you get focused by what you see, how you see it, and you do things more efficiently with less use of time and at the same time. I think the clinicians on a higher level spends more time with the patient education. That is what I see here. They use their

education much more. The person who is above me has a lot of patient education and a lot more interaction with the patients than I have.

Researcher: What does that mean?

Subject: With a lot more talking about what they are trying to accomplish with them. I am maybe more direct it. They spend more time with each to understand what they want to accomplish with them. My re-assessment today took 15 minutes whereas their re-assessment make a take a full hour. I answered all my patients questions; he was really pretty straight forward and did not have meet with the nurse. They may have spent an hour with the patient and looked for more things to re-assess.

Researcher: Why is it that they are able to find those things to discuss?

Subject: With their experiences.

Researcher: Do they know more?

Subject: Definitely! I have had two and a half years versus twenty years. Yes, they do pass the knowledge on to us but it is not like a mentoring situation where I am sitting and learning. A lot of it here you have to seek out and learn on your own in any outpatient setting. You have to be able to ask questions and they have to be open to answering. Yes, they spend a lot more time with their patients. Our director spends time getting at the essence. If I read the book or go to a conference, I would learn and use that technique. She uses a lot type of approaches. She does not go to a lot of PT continuing education, she is not classic. She goes to yoga, pain management, not only for the PT field but other fields. Her knowledge base is expanded but I still need to learn a lot more as a clinician in the PT realm rather than reaching out beyond. You have to start somewhere. I know where I need to go. If

I was to go somewhere else I would be learning more about just being a PT, hands on and PT approaches to therapy.

Researcher: How do you think the proficient decides what is right for the patient critically?

Subject: I think they go with what they see. They might see things differently in their experience. Maybe relying less on rational for the expert. It bothers me because we are supposed to be evidence based. I guess I will never be there because I was taught to always have a reason for everything I do.

Researcher: You told me that the expert has an instinct that you would like to gain?

Subject: Should you not know why you do that? No matter what he or she may know what they need to do, but they need to know the reason and be able to explain that reason. The descriptor says that they have difficulty explaining their rationale. But of the people here who I consider experts, I am going to ask them for their rationale and they are not going to say I am not sure. They are going to speak to their expert or the type of patient and discuss what works or the patient response tells them what to do and for this reason. That is good even though it may not be based in evidence, but there is a reason. I really have not found someone who does not have a reason why they have a reason. Even my professors had a reason for doing something. And they tell you that there are a lot of things out there that don't have evidence such as cranio-sacral but they have a reason why they would do that. If the patient felt better, they would have a reason for it. School preached more that you should stick to proofs and the way profession.

Researcher: The proficient and the expert?

Subject: The proficient and the expert are a mix for me right now. I don't think that I have around a lot of proficient. I was around a lot of novices when I was in school and when I got

here a competent level or in between there. They all had different approaches to get to the same outcome. The toughest part about discharge is that your patient may not be better. And we are taught in school to measure by return to work or by what they are able to do. That was a tough thing to learn that it was not my fault that they may not be getting better.

Researcher: Not getting better, does it make you grow up and take you out of the novice piece?

Subject: It helps you move forward in a way and also not. It is an approach, one thing you need to learn about this place is that your patients may not get better not because of you. My first year was difficult. In my second year I realized that I can't control all the aspects but I have learned to look at what makes someone tick and break down the barriers. Maybe they may not return to work, but they will get better. Other people don't get better no matter what I do.

Researcher: The expert and the proficient person did they look different than you working with people?

Subject: They would spend more time discussing things with their patient and maybe not. I don't step outside of myself and look at what I am doing. They deal and talk with their patient. I don't think they would look any different than me. I think they have more of an air of confidence in their abilities. My clinical was in an acute setting and she had been there fifteen to sixteen years. She did things and did not think about the rationale. I was a deer in headlights. Besides that my professors had a confidence about them, and it felt good and they would give me their knowledge.

Researcher: I want to go back to novice. You had initially said the novice was the person coming in the door. In your other realm of experience you said the novice was a student?

Subject: I was a bad student.

Researcher: Is the student a novice?

Subject: Toward the end of your schooling, I had to do two clinics back to back, and I was starting to consider myself as a novice. We had an extra year as the first DPT class and things started to click. I was at that novice level at the end in order to remain safe and good enough of how to be with a patient and gain understanding what was wrong and use your bag of trick. Being safe is the most important component. For a novice to learn the basics of safety and progression is a good thing.

Researcher: When I say productivity what does it mean?

Subject: Productivity is different. We are not by numbers or efficiency. I think productivity from the business side means to get the most out of your people as you possibly can. We do not do that a lot here, we do and we don't but we have basic expectations and you have to meet those requirements. No one is looking over your shoulder. It is personal.

Researcher: Does productivity change as you evolve?

Subject: Possibly! I think you could learn to use your time although I have always been graded on using my time very well. But the experts that I have dealt with have less time to do what they want to do. Their time management skills are terrible. They get their stuff done but it takes them longer.

Researcher: When I say motivation?

Subject: For me it's a willing to continue to try to learn and evolve. Not on a scale but I have goals that I would like to accomplish and where I want to be. I have to look at the things I want to do in order to get there. Who wants to sit there and read a PT book or buy a new book and learn something instead of watching TV or making sacrifices that is what it means.

Researcher: Does motivation change as you evolve?

Subject: I hope not. I see everybody has the desire to continue to learn and be motivated to be what they are. I would have to see them at home and here they seem to be motivated. There are people who are at a higher level and they stay where they are

Researcher: Should I be asking these questions?

Subject: Sure, why not!

Researcher: Should you be told that this exists and you fall somewhere?

Subject: Yes! I like it. It gives me something to strive for. I am not sure how the expert feels about nowhere else to go. Do they feel as though there is any more or do they actually feel they are an expert when you say they are and expert? Who is going to say that I am an expert clinician or proficient? That would be interesting to know. There has got to be some type of measure to know who you are or where you should be. There has to be something. We have to come up with a scale – I think about Maslow. At points in life as a professional and even in your personal life, you want to be successful. I spoke to one of the PT's here; you want a set guideline. When I was a kid I said wanted to do this before I did this. I wanted to get married before I had children, I wanted a house before I had children. It was a set pattern and as a professional, you have to do the same thing. As a professional, I have aspirations as to where I want to go, and I hope I can get there.

Researcher: Do any tools exist?

Subject: Not that I am aware of. I know we have the generic abilities at school along those lines and there is a CI class self-evaluation of where you. That exists out there, but I have not seen it or heard about it since I have been here.

Researcher: So self-evaluation is part of it?

Subject: Yes. I think it has to be. I think it is nice to have someone from the outside look at you, but when it comes down to it, how many people are going to believe you over themselves if you don't give them specific examples of why you consider them in this level or that level. Some people who think of themselves as an expert may find themselves upset if you think them less than that! That is me just a person saying that. I strive for feedback. My first year I went to a get review from my supervisor and the director of the facility to see what I needed to do the adjustments that I needed to make. And some of the stuff, I did not want to hear and some of it I needed to hear and did not want to. That was not the case. I wanted to here that I was the best but what areas I needed to work one. One of the areas was understanding the concept of chronic pain and how it impacts their lives. If you were to see from the outside looking in, you see someone doing really well and some one who is really suffering and sitting talking to me. There is a stigma attached to being here and you say to yourself that you don't want to be like that but you have to treat a patient like that. I was doing well but not well enough. It was my motivation to get better at it and understand more. I think there has to be some type of self evaluation with someone else looking in there if somebody wants to. Maybe somebody just does not want to. One of my friends left here and left the profession. He did not want to be a PT anymore. He may be did not want to here where he was as a clinician even though he was an awesome PT. I guess he knew that he wanted to do more with himself.

Researcher: Do you think that there is a time frame attached to these levels?

Subject: For the first two but the rest are a self driven experience. No matter where you are and no matter what you are doing, you may be seeing the same patient everyday, you do advance from being a novice. But going from there to there once you have the basic idea that

you can by doing the same treatment to same patient, they don't really evolve – shake and bake therapy who do not see their patients, the patients treat themselves and they feel that it is just it for them, and they don't care to learn anything else

Researcher: Time frame for one and two?

Subject: At least a year. After that it has just to come up to the person. I don't know when I will be a competent person or proficient. I don't know if I will ever be and expert. If I thought I knew everything and could do everything, I think it would ruin my drive to be better.

Researcher: Anything else?

Subject: No. I think that is good!

Subject 208: New DPT

Researcher: You have read through the items of professional development and the informed consent and I have received your signature?

Subject: Yes.

Researcher: What is your DOB?

Subject: September 20th 1981.

Researcher: What is your highest PT degree?

Subject: DPT.

Researcher: The year of your graduation?

Subject: 2006, September

Researcher: The college or university that you attended?

Subject: Boston University.

Researcher: Location?

Subject: Boston, Massachusetts.

Researcher: Do you have any specialist certifications or credentials?

Subject: No.

Researcher: How long have you worked in the PT profession?

Subject: I have been working full time since September 2006.

Researcher: Have you been working in the physical therapy arena before that?

Subject: No. I entered in as an entry-level person. It started out as a masters program and continued in to a doctorate level. I continued with my clinicals and as soon as I graduated, I took my first position.

Researcher: Were you a tech or anything like that?

Subject: No.

Researcher: How long have you been working in the outpatient arena?

Subject: Since 2006. I split my time where I am half time in outpatients and half time in inpatients.

Researcher: Have you taken any courses recently?

Subject: I have! I did my clinicals most recently at St. Vincent's in Bridgeport and Gaylord in Wallingford. I attended in-services where companies came in to present their products and in-services presented by faculty there. I went through a certified ABI course at Gaylord that was several weeks long. I completed some course work in wound care and interned that was recommended so that I could be on their wound care team. Since I have been working here at Griffin, several of their students have presented and also some of the PT's that have gone to

other courses. Next week I am going to my first official PT course in Hartford for the acute management of the inpatient.

Researcher: Have you participated in any mentoring or clinical education of students?

Subject: No. We have had some students here, and I have supervised them for a couple of hours or so when need but no official students of my own yet or mentoring.

Researcher: Can you give me an example of an interesting case that you have tackled recently?

Subject: I have an interesting inpatient case. We had a female that was brought in from an extended care facility who had a quite an extensive PMH that included psych issues. Ever since the fall that she experienced right before she was admitted, she became non-communicative and not participating. I did not do her initial evaluation but reading the PT notes, they had a very hard time getting her to participate in therapy. We did not know if she was not participating in therapy because she was not communicating with us. When I went in I did not know what to expect. But when I went to start talking to her, she asked me for coffee. I thought that this is good, and she is throwing me something to work with here, so let me grasp onto this. I talked to her and it was fine for her to have coffee and I got the coffee for her. In order for her to have the coffee, she had to sit for me at the edge of the bed, do some reaching for me and some other exercises with her not really knowing that they were exercises but the with the goal in mind that she would get her coffee. For me it was very rewarding because for three days prior, they really were not able to do much with her. She was not getting out of bed, she was not moving... they did not know if it was a strength issue or not. She got out of bed on her own because she wanted that coffee. To me the eye opening experience was you really need to consider what the patient wants to do. Not every patient

wants to do exercises to try the stairs. So if coffee is what they want and our goal right now is to make sure they are safe and they can return to their previous location. If they want coffee, then we can maybe take a walk to the kitchen and have them make the coffee for us and get our own assessment. In addition helping the patient get what they want.

Researcher: I would like you to dialogue about your experiences. Apply one of the levels of professional development to your current status and tell me where you are.

Subject: I would think when I was reading through these initially, I was thinking about which category I would fall into. I think there is a lot of overlap. If I had to really pinpoint where I am right now, I would say the competent clinician because I am looking at long range goals and plan professional development for myself and where I want to be in the next couple of months or years, and I am planning to go that way.

Researcher: Where do you overlap?

Subject: I feel that with the advanced beginner clinician, I have not had that many real situations since I am still so new to the profession. I have had several clinical experiences, and I feel like I have been prepared academically but there is really no text or lab course that is really going to prepare you that well for the working experience. The more that I continue to experience here and in other facilities, I will be able to grow. In terms of the advanced beginner, I definitely need more experience and view each experience as a learning experience. No matter the outcome there is something to be gained. In terms of the proficient clinician I feel as though my curriculum at BU was very evidence based, and I understand that there is not always one definitive answer to everything or one right way to do a task. There are many ways to conquer a task or a problem and that is there is a lot of knowledge

out there in terms of literature and research. It is something that I want to incorporate into my practice.

Researcher: Is there one event, issue or thought that tells you that you are advanced beginner in some things, competent mostly, proficient yes?

Subject: Meaning I am advanced because I am still learning from my experiences. I am a competent clinician because I do have goals for myself professionally and here in the clinic so there is a plan that I have for myself. I am a proficient clinician because I know where to find information and search the evidence, picking and choosing my studies based on their structure validity and reliability. I'm not going to jump so far to say that I am an expert clinician by any means. I do understand that every situation and every patient is different and if we can make a connection to one of these questions, describe a typical case that you have worked with recently. It is hard to call any case typical because everyone is different and you really have to individualize your treatment plan and your approach to every patient. I gave an example that most patients status post knee replacement will go through a similar recovery. But I have a hard time calling it a typical case because everyone is so different. People may have a variety of past medical histories, home environment and social support can be very different. Motivation to participate and adherence to exercise programs or post op precautions all have to be considered. So to say that one person is or one case is typical I think is a hard conclusion to come to.

Researcher: How would you describe your interaction with a patient when you met with a patient for the first time?

Subject: I go in and I try to have an open mind! I have read about them in the charts or on their history form. I treat them all with respect and dignity and I really take the time to listen

to their story and how they feel about what's going on and what happened to them. I really try to consider what they want to get out of physical therapy or out of their experience here at Griffin. I always ask them if they have any goals, what they would like to be able to do. It is pointless to work on what the patient does not want to do. It is one thing if they have to be able to do it to go home or it is their goal to go home and you are trying to convince them or give them a good argument as to why they need to practice getting in and out of bed or in and out of a chair because they are going to have to do that at home but it is very important to consider what the goal of medical treatment is so that we can make the interaction with us as positive as possible.

Researcher: If I were to stand outside the window and watch you work, what would you look like?

Subject: I would probably have awful body mechanics and horrible posture and then also in the inpatient area I am probably tripping over a couple of lines and trying to assess my environment – I am still a little slow when it comes to where the IV pole is supposed to go. I usually have a smile on my face.

Researcher: How do you decide the best course of action for your patient?

Subject: There are a lot of things to consider! You have got to consider if there are any precautions in terms of weight bearing status or cardiac precautions or lab values that are high or low. You have to consider what their goals are, what they want out of the treatment, what their discharge plan is, where they want to go. You have got to consider whether or not the patient can tell you this or should you be talking to a family member who is making the decisions for them. There is a lot to consider when developing a treatment plan for an individual and that speaks to the individualization of treatment. One plan may work for one

person and not work for the next. So you really have to consider the whole person and what the goal is.

Researcher: How do you decide that your patient has benefited from your intervention?

Subject: I feel like I keep saying about the goals. Seeing if they have achieved the goals that we have initially set and if they are pleased with their progress then if they can move on to the next phase, objective in terms of measuring range of motion and strength. On the OP you are seeing them on a much longer basis; I think the outcomes are a lot easier to measure since you have a longer interaction with them.

Researcher: How do you interact with other PT's and other disciplines around the patient?

Subject: I'm constantly picking the brains of different therapists here. I think that will happen for a long time not just because I am new but everyone has a different approach to their treatments, and if what I think is beneficial to the patient and the patient does not respond to it, then I may need some other ideas. I think it is great to brain storm with other therapists that are here. We do have an occupational therapist here as well and I am always chatting with her also for areas that are more in her realm. She is a certified hand specialist so if I ever have any questions about the hand, she's certainly someone that I would turn to. I never hesitate to ask another therapist to join in on my treatment if they are available, so that they can get a better feel for the patient's progress or presentation and help me in that respect also.

Researcher: Tell me about the novice? Who is the novice?

Subject: When reading this paragraph initially, I thought that the novice clinician can be me just starting out in my PT program because it says has had no experience of the situations.

Before we are even going into the labs to learn about manual muscle tests and joint mobilization, we really had no experience unless you were a PT aide or volunteered or what

have you. Even in that case you are very limited in what you can do hands on. I think that being in the lab and being in the classroom has certainly given me some experience in practicing these skills, and then going out into my clinical experiences has also helped me develop and progress into the next phase which would be the advanced beginner. What really sticks out for me in the description of the novice is that we have no experience in what we are expected to perform.

Researcher: If I were to stand outside the window, what would the novice look like at their level in the clinical situation?

Subject: They would probably be doing a lot of observation in the beginning, watching the other therapists and seeing what they are doing, looking at the different equipment that we have, perhaps learning about the different diagnoses that are presented to them. They would be characterized by a lot of observation.

Researcher: How would they interact with the patient?

Subject: Probably more, instead of giving them clinical advice or... I would say that they would be asking them questions about what brought them to physical therapy and what have they been doing about their frozen shoulder or what caused the onset the onset of shoulder pain. Gathering more information about their history and presentation and trying to piece that together to see what's is contributing to the current issue

Researcher: How would this novice person interact with other PT's and other disciplines?

Subject: Kind of similar as to how I interact now; asking questions about what they are doing and why they are doing it. Trying to get more information about the field PT too and speech and it benefits the patients.

Researcher: Still at that novice level, if they were asked to decide on a treatment plan, how would they get there?

Subject: Eeny, meany miney mo! It is tough because they have no experience to draw upon. To make a good decision would be to ask other clinicians in the area – what do you think would work best – drawing on the experiences of others until they have gained experience themselves.

Researcher: And then to decide if the patient has benefited? How do they know that that person has improved?

Subject: Probably by asking the patient! How are you feeling now? Asking the patient, subjectively if someone is coming in pain, is someone feeling better. Asking someone else is something that I have lived by through this whole program. Not only in my clinical experience but surviving the PT program, otherwise, you are lost in the dust.

Researcher: Can you give me an example of someone who is really proficient or expert? How do they work or how do they interact?

Subject: One I will say is one of my previous CI's. I would say expert but I think that there is another category beyond that. My feeling is that you are never truly going to be... there is no one top to achieve. I think that it is endless. The whole field of physical therapy is ever changing. There is always new research treatment and approaches, and it is a challenge to be an expert clinician, but you can't stop learning. It is a life long commitment. In order to be an expert clinician, you have to accept that your knowledge base always expanding. It is tough to say that this is it. In any event going back to the question, I would certainly say in my first CI. I was almost disappointed that this was my first full time clinical. We had integrated clinicals where we would go once a week in the semester. This full time was in an outpatient

ortho clinic in Madison, a HealthSouth and I had this clinical before I had any of my spine which was a bummer because a lot of outpatient ortho is back and neck issues. So in that respect, I feel like I had missed out a little bit. But it was such an incredible experience! He is an expert clinician and I have referred patients to him not only for PT, but he was an athletic trainer and then went back for his PT degree. Then went to school to become an acupuncturist and uses Chinese herbal medicine and has a lot of Ti Chi and Chi Gong integrated into his treatments. I felt that he was just a wealth of knowledge and he did a lot of manual therapy. You often here in the outpatient setting, the people are overusing modalities and just basing things on exercise, but he seemed to have such a great balance in the use of modalities, therapeutic exercise and manual therapy. He looked at the whole body and not that they just came in with a shoulder problem. He focused on the whole person and I really gained a lot from him.

Researcher: What did he look like when he worked? How did you know that he was an expert?

Subject: He just had this presence. He was very approachable, very personable. I never saw him have a negative patient interaction. He really connected with his patients and left a lasting impression. Just a very kind person in general and had a deep concern for whether or not his patients were improving.

Researcher: And if you were standing outside the window, what did he look like?

Subject: He looked like a friendly guy! He knew his stuff and knew exactly how to approach a situation or a case. He was very personable and had a great personality and also the knowledge to back up what he was doing – the rationale. He always took the time to explain to the patient what he was doing and what the goal was, what they should be feeling. In fact

because I was practically a novice clinician when I went in there, he tried out a lot of the different modalities on me so that I would understand what my patients were experiencing. It was good.

Researcher: How did he interact with other disciplines?

Subject: To be honest with you, it was a very small clinic and there were only two PT's in the clinic an aide and a receptionist, so we did not have many interactions in the clinic. But he would not hesitate to contact a referring physician to ask about precautions or to talk in more detail about the case. HealthSouth had a lot of continuing education opportunities so we attended a lot of courses. Within those courses we tended to interact a little bit more with their OT's connected to the group. If he had specific questions for them, he would have no issue bringing them to the table. It seemed that he also embraced the thinking that PT's, there is no top. You have to keep learning and keeping growing yourself. If he thought he was an expert, he has to continue going to these courses not only for the CEU's but to keep growing professionally. And he did. He even brought in a different kind of orthotic company to teach us how to cast, just to learn something more.

Researcher: Who is the proficient person then? You know that you are getting yourself there. Do you have an example of a person who is proficient mostly?

Subject: I think I will go with one of my other clinical instructors. I think that I spent so much time with these people one on one that I really got to know them. I think that she had gotten to the point where she really knew what she was doing. She knew the evidence behind it and she had a lot of experience to draw upon and part of the thing that is holding me back from the expert and just calling her a proficient clinician, which is not a bad thing either, I think she had some areas in which she could grow and maybe considering the patient more as

a whole patient rather than what we were treating per say. She did accomplish what she needed to get done from a pt perspective. She taught people how to walk again, transfer and stairs, all those PT type things. But I certainly do think that she had some areas that she could grow in.

Researcher: Give me an example of one area?

Subject: I think her interpersonal skills I think she could grow in, just her patient/therapist interaction. It is good in a lot of experiences but in some I think she could grow in that area.

Researcher: What did she look like? How did she function just by watching her?

Subject: Again, I don't want to sound negative and I have a great respect for. To me she is a tall woman and strong. She could transfer anyone she came in contact with and literally I mean lift them up! Definitely knew when to be more on guard and when to set free a little bit and let the patient go on their own. A funny person and able to interact and try to lighten the situation when a patient could become frustrated or disappointed – definitely knew how to bring light to a situation.

Researcher: How did she make her decisions as far as a solid intervention and decided on the benefit of the intervention for the patient?

Subject: I feel like it came very quick to her! She knew what they were in for and she took a look at their motion and their mobility and she knew exactly what she wanted to do. Not an indecisive person whatsoever. In terms of interacting with other therapists and asking for ideas, she had a lot of them. I don't think she necessarily interacted a lot in terms of other people's experiences. I think she had a lot to draw upon herself. A lot of her decisions came very naturally to her and were very effective.

Researcher: If said productivity to you' what does that mean?

Subject: [Laugh] Probably seeing as many patients as possible but seeing them providing effective intervention.

Researcher: Does productivity mean the same to everybody in the range?

Subject: I think everyone has a little view of productivity or different standards for themselves. In terms of the expert clinician, I do not think they are very concerned seeing as many patients as possible and keeping their numbers up. I think they see the whole picture and are able to. In order to be productive, they need to be effective in their treatments but they understand the complexity of every situation. They will take the extra time to work on people that need greater time needed on their intervention. Productivity means to them not only being productive in their patient productivity but also being productive as a professional, in their professional growth. Setting the goals and working toward their professional goals is also part of their productivity. The proficient clinician is also very similar to the expert clinician because they are also guided by knowledge and evidence based practice. They want to see as many patients as they can, but they also want to be productive in keeping up with this knowledge and knowing exactly what has been effective with certain patient populations and that will help with their productivity once they know that. The competent clinician which is also considered the autonomous practice is considering the patient as a whole. Their productivity is going to be based on more of their outcomes. If they are working toward the goal of discharge and they reach that goal then that is productive. The advanced beginner is probably more concerned at this point in terms of numbers; trying to fit in with the other therapists and as many patients as possible so they don't feel like they are lagging behind keeping up with the expectations of the department. The novice clinician is

being productive in their skills that they are studying and trying to incorporate them into their experiences.

Researcher: Motivation?

Subject: What are they motivated by? I think there are different... there are some similarities and there are differences in each group. For the novice clinician, I see this as a person who is still in school, very early on in the program, their one motivation is to get through. The advanced beginner their motivation is to become a competent clinician. They are trying to use what they have learned in school and trying to put that into practice and become comfortable with it. I think the competent clinician is motivated by... I almost want to group the last three together and say that they are motivated by the rewards of the profession. Their motivation, not so say that the others are not motivated by a genuine concern for the patient, but these are more motivated to get good patient outcomes, and because they have experiences to draw up, they may be more mature in their interpersonal skills and interactions with their patients. They may look at the patient more as whole person as opposed to just the diagnosis. They are more motivated by their genuine concern for the patient to get to whatever level they want to get to. They are also motivated to continue to grow professionally as well.

Researcher: Who should measure or tell you that you belong to any of these?

Subject: It certainly is a nice guide. I don't think you should be told that you are in this or that category. If you take the time to look at the categories and analyze with some of the questions that you have been giving me, you yourself could decide what category may fit you or decide that you may have some qualities from this one or that one. You may just know from reading them in the beginning. It is a little challenging to put yourself in one particular

category, but with the guiding questions, it is a lot easier to pick out what you fit into. I think that having open discussions or guided focus with your peers or supervisors can help you get a better idea of what each group means, and you can make your own goals in order to advance. Similar to the generic abilities assessment, where you are considered, beginner, entry. When you asked if I had had anything similar to these five categories I was able to refer to the generic abilities that I used in all of my clinical experiences but I have not used it since I finished my clinical program. I think it would be great for professional development if we incorporated it into annual reviews. Even yourself, you do not have to go through it with anyone else, but if you want to take the time to see where you fit in or made gains, it is a nice tool.

Researcher: How do you get from one category to the next?

Subject: It is not clear, cut to move from this one to this one; there is a lot of overlap.

Researcher: How do you evolve?

Subject: You have to see what each category focuses on. I have picked out key words to focus on. The advanced beginner focuses on experiences and gaining a lot of experiences. The move to the competent you need to view each experience as a learning experience and make goals from those experiences and how to perform better or further yourself in the profession. In order to move to proficient you may want to focus more on search the knowledge base and incorporating your experience and the literature that is out there to see how you can combine the two to better your outcomes, treatment plans or interventions. To move to expert, you have to build on each of these as you go along. You can't lose the skills that you have relearned from the previous categories. You can't let it drop by the wayside. The expert uses everything to build on approaching patented and realizing the complexity of

the individual and incorporating the knowledge from the literature, the gains made and the goals you made for yourself into this final category.

Researcher: Should I be asking these questions?

Subject: Yes. It is very easy for us to get wrapped up into being productive getting our numbers up, trying to treat as many patients as you can in one day, paper work requirements for insurance companies – that sort of thing is very easy to get wrapped up in. Just looking at what the patient is coming in with and not the whole picture of what is contributing to this complaint. It is easy to get stuck to an every day routine – coming in the same time everyday, seeing your people and doing your paperwork. You have to make the time to continue to grow professionally and clinically. We have invested so much time in the PT program in general. Mine was a six and a half year program. I do not want to loose the problem solving and analytical skills that I have gained. I want to continue to grow read the literature – have focus groups, journal club or case conference with my peers to help grow. It is nice to see that there are different levels that you can hold yourself accountable for or fit yourself into different categories. It is true that some people are fine staying at the competent category or they may decide that they have reached their peak. If they read these categories then they may decide that they can do better.

Researcher: Is there a time frame for each of these categories?

Subject: No. It is your own process.

Researcher: Good!

Subject 209: New DPT

Researcher: You have read through the five levels of professional development and I have obtained your signature of consent.

Subject: Yes.

Researcher: Date of birth?

Subject: February 20th 1959.

Researcher: Highest PT degree earned

Subject: DPT.

Researcher: What year?

Subject: 2002.

Researcher: The institute that you attended?

Subject: Slippery Rock University, Scranton Pennsylvania.

Researcher: Any specialist credentials?

Subject: My master's degree was considered specialist to me because I did that in applied anatomy and physiology at Boston University prior to going to physical therapy school. I have a certified strength and condition certification; nothing beyond that in terms of actual certification. I was an EMT many years ago for four or five years and that has since lapsed.

Researcher: The amount of time that you have worked as a licensed clinician?

Subject: For four and half years as a licensed PT.

Researcher: How long have you been working in the physical therapy arena?

Subject: I am going to say since 1997, which would be about nine years because the two years in graduate school originally was spent doing research with physical therapists and physicians on athletic performance as well as geriatric research, research amongst stroke

patients in our labs. They were exercise related research project, but they were therapists and physician involved so I had a lot of exposure to a clinical care situation even though they were not actually receiving physical therapy. But we were doing exercise modalities with these people.

Researcher: How long have you been working in the outpatient arena?

Subject: Four and half years.

Researcher: Apply one of the levels of professional development to your current status. Can you tell me who you are?

Subject: I wrote down competent - proficient. I am somewhere in between there I would like to think. I am at least competent no question about that. I think certain pathophysiologies or certain patient types is where I think of myself. I recently saw- started seeing a twenty eight weeks pregnant low back patient with apparent disc herniation. I've probably only treated, of all the back patients that I have treated who were female and of whom were pregnant, maybe a dozen or so, I have only had a couple that had these discreet symptoms of herniation where you really have issues that are difficult to deal with. So I feel I am competent I'm not proficient there because I have not done enough of those. Not to contradict what I said, I do have a sense of one of my pet peeves is knowing what you don't know. When I think about autonomous practice; I tend to think that I am proficient because I think am really well trained to know what I don't know. And I think I might be more likely than someone who thinks they are proficient, I know what I am doing well enough to know that this is something that I can take a look at but I am not sure that I should be treating it or I am not sure I am the best person to treat it. Proficiency is often times is my ability to recognize my own limitations. I do that with vestibular patients because I don't get a lot of them. But the

last two I had called me back and told me that you sent me to that place where they were supposed to be great at it which they were supposed to be but you did more for me than they did. I walk away from comments like that saying although I am no vestibular rehab person obviously I am competent enough to do enough that the patient walks away thinking that I knew that I was doing to the point to where they even go to a place that specializes in it, they don't even make an impression on the patient above what I did. What does that tell you! I don't know if it is indicative of what people are doing or if its more of an indication I must be trained well enough to have a sense of what I'm doing even with things I don't see a lot of, for what its worth.

Researcher: Let's go to the patient interaction thing and understanding. Describe how you interact with the patient for the first time. You talk about the quality of interaction with your patient. If I were to stand outside of the window and watched you interact with the patient for the first time plus tell me what you do? What's going on? What do you look like and what do you sound like?

Subject: I think I like to treat my patient's similarly to Maria. I am a little less. One of my nicknames is warm and fuzzy because I wasn't enough supposedly. But I have a very business attitude, but I will laugh and let them tell me what they are feeling. However I feel the need to control the conversation so that I am efficient. I worry. I had a patient this morning. This guy would have gone on for three hours. I don't have time to hear about every ailment that you have. You are really here for a specific issue and I try to be understanding but I had to keep bringing him back. When I have students I will even say to them that you have to be nice but you have to grab the reigns and drag them into where you want to be or you will never get the information you need. I try to be personable and I don't think I boss

them around, and I talk to them, make eye contact and tell me as much as possible. I am interested in what they want to say, but I want to guide them down the path so that I can do something for them in the time frame that I have.

Researcher: How do you decide how to intervene for your patient and choose the proper course of action?

Subject: I try to reconcile what I think they need based on what they have told me and based on what they think they need. I try to reconcile what they need and what I can give them. If they are highly active and they ask me about ultrasound and tens, they are not getting it. I will fight them on it. But my answer to them will be you are going to walk out of here and pick up your three children five thousand times a day. You are not going to lie here with heat and tens and spend two weeks with modalities. I know that's what you might want and I will give it to you sometimes, but you are here and the best I can do is make those functions easier and safer for you and I want to get to that right away don't want to waste time .

Researcher: How do you decide that your patient has benefited from your intervention? How do know you guys are cooked?

Subject: That they have benefited from an entire plan of care? How do I know? I base it on what they tell me. I just had a patient yesterday who I just referred back to the doctor. She has been coming back for eight weeks. I asked how that much better she was. I made sure that I said to her, "Don't make me feel better. Tell me how much better you are." She said only 10 to 15% better. I told her "Good because that was what I was thinking you are really not that much better." All I did was...what I did for her, I was part of the differential diagnosis for that physician. I just got off the phone with him before I came today. I basically sent her back to him and said that this is not the right thing for her right now; this is not

getting any better. I think she has something else going on, and he agreed. That is about it. I feel fulfilled with what I did for her. I did not make her any better but I closed the door on something for her right now. She might need surgery I don't know. When they come to me and they say [the doctor] spent two minutes with me, you know what I defend them. One of the things is that he is a surgeon, and he is a busy guy. I am going to see you every day three times a week, even an x-ray does not show you anything. "But he does not check the way you check". "He does not need to, he has me to do it." When you go back to him and I tell him a, b, c and d. This is where she is. He does not have to worry about it now he can say time for an MRI, four weeks of therapy and you are no better, and I have got to take the next step. Sometimes I look at my patients objectively, take back what I said subjectively because I know sometimes, there are patients who just want to be taken care of. If I am getting objective data that says that they are already better than when they came in, I just say I know you're ROM and strength is better and you are moving better. You don't need to be here, there is nothing you can't do! Maybe you have too much stress. As far as PT is concerned, you are better. You may have pain that you need to deal with, but you have made progress.

Researcher: You alluded to how you interact with other disciplines and other folks involved in the case? How do you interact with other PT's?

Subject: I am on my own. I have an ATC who is green, so green to the point that I give him more information than he gives me. I do value his comments. It helps me out, but I don't have anybody superior to me in the clinic, so I have to make a phone call or two or three. I am also an independent nut, do some research on my own and then call somebody for help. I had a woman yesterday who I decided to refer over after my initial evaluation because I did not think I was able to help her. I am going to try to do my best to help her, but I do not have

the opportunity of a resource. But I worked in a similar facility with other PT's but not now. I often miss having another set of eyes with me that would make me a better clinician for sure.

Researcher: How do you know you are an advanced beginner?

Subject: I think for me it is a lot of experience. There are times I feel like a novice or advanced beginner depending on what I run into. I don't know. I guess if you brought a child with advanced CP into my clinic, I would probably consider myself an advanced beginner at best because I don't treat them all the time. There is too much skill and art to clinical practice. There are too many things that don't match when you come out of school. That is what I try to tell my students. It does not really matter how much you know – they probably know more about anatomy than I know to a point. I tell you I have seen millions of those things and I know it clicks and where the patient is headed, but where I am I guess there are times I feel like the advanced beginner because I have not seen a certain type of patient condition.

Researcher: Does interaction change with each level?

Subject: I think it could get worse on some levels. One of my mentors is more of a novice than I am with certain patients because he was so focused on orthopedic post op sports medicine. He is as expert as you can get – post op sports medicine physical therapy. But bring him a geriatric Medicare patient, I was as good as he was my first day out almost. He just did not treat enough of them. He was not even... he knew more and not that bad. He started giving me Medicare patients on a regular basis because I have a better handle on them. Some of that was not PT school. Some of that was of my previous research experience where I saw many geriatric patients every day even though I did not know about their pathologies. I knew how to take a good history. I knew about the hypertensive medications. I

knew the other meds they were on and the anti-depressants. When the patients came, in he was better than I was but he could not wrap himself around that clinical situation as well, even though he knew more than I did at the time about the back. I am not sure if this will get worse for me if I got more and more specialized, you could start feeling... Experts don't know what to do with that patient because you never see them. I think physicians do that all the time. Is he an expert clinician, yes! But is he an expert clinician with a five year old CP patient, probably not.

Researcher: Describe for me who the expert is? If he is interacting with – what is his interaction with a patient like?

Subject: The expert clinician let's say can deal with anything but that does not mean that they have the maximum amount of ability to treat any particular problem. They may have the best ability to manage that problem but not necessarily to treat the patient.

Researcher: What do they look like when they interact with the patient?

Subject: They are self-assured. The expert spends less time on the irrelevant. I still find myself getting caught up on the irrelevant and the expert probably cuts at the expense or risk of being a bit dismissive of the patient or not listening they will be a little better at getting to the bottom of what they need to. The only expert clinician... putting me in context in what I am reading. If that really is the definition we are going with, I am not sure if they have to know a lot. But it seems as though we are almost talking about management people, managing the patient. I can think of several, three major mentors clinically. One of them is more global and comprehensive. If I had to say which one I would want managing my diverse population, it would be clinician A because this person has gone from incredible sports medicine orthopedic to holding this nine year old CP kid to low tone. He knew how to

handle this kid and he just brought her from...the mother came in freaking out... he was just great. That was early in my schooling – I think expert when I think him. But one of my other mentors was in the outpatient setting – this is the guy I want. Too much orthopedic and sports medicine stuff. I think it is all contextual for me. The novice is the last student I just had at her second to the last affil with me. She knows what to do but a perfect description is the context free rule, that is where it is. I think you sit at the novice until you see a lot of patients. I don't care if you have been practicing fifteen years; if you have seen fifteen rotator cuff repairs, you are an advanced beginner at best when it comes to rotator cuff repair. Some patients will say to me, so and so went to this clinic and they have a lot more time to spare. But when you are choosing a physician, choosing a therapist or choosing a nurse, you do want to keep in mind the you want somebody who has seen what you have. He can be the nicest guy and have the best bedside manner, but if he has not seen a lot of this, you might as well get rushed through the guy who knows what he is doing because you will be in better hands. There will be less wasted time. Everybody is a novice when they have not seen a lot of something and managed it on their own.

Researcher: Any comments on advanced beginner?

Subject: I think advanced beginner if I look at an objective measure would be like being eight months to a year out depending on how busy you are. I have got to believe that in the first year or after the first year, if you have seen a certain amount of stuff, you should be there. There might be things that you have not seen a lot of but you certainly feel comfortable dealing it.

Researcher: Can you apply a time frame to these? Or how would you separate these?

Subject: In my head I could. The novice is the kid in school to when they first get out. Some kids get out of school and they have done so much tech work. Five years as a tech somewhere all they really needed was the degree because they have been exposed to so much. Probably when it comes to certain sports medicine injuries, they may already be up to advanced beginner or competent clinician. So I guess it depends on where they went to school and what they did as they went to school. It depends on what you mean by competent clinician. There are a lot of kids when they come out of school who don't know what they are doing but they know what they don't know! They have a real good knack. They can tap dance through a patient by getting them to someone who does know what to do with them. That is sort of competent clinician. I would want my mother treated that way if she went to that clinic. If she went to clinic A and it was some kid who made her feel like he knew what he was doing and she actually was able to put her off onto somebody else's schedule without a hitch and felt that she was being cared for, then that clinician is probably competent in terms of patient management. Is he a competent practitioner?

Researcher: Who is going to tell you what level you are?

Subject: Me, a colleague or future employer will tell me or implicitly suggest what I am!

I am also very self-critical. There are a lot of things that I do not know enough about and I wish I knew more, but I am kind of tough on myself. Some one has to tell me some time so that I feel like... the patient who called me the other day and told be about the vestibular thing made me feel like I was more of a proficient clinician because he made the point that even though I don't know anything about vestibular I was able to provide care. I was once given a time frame. I was told five years. I don't know where that comes from. I have heard it multiple sources, from other clinicians, that you need to be treating for five years then you

pretty much seem...it is also based on volume. The thing is that after five years, you have probably seen a lot. And you could probably be out two years and probably seen the equivalent of five. It sort of depends on where you go. The five years is a good number to look at by everybody putting everyone at least at that level. Even in a slow clinic, in five, you have seen a lot.

Researcher: Can you tell me how are you measured? What are the measures of what level you are?

Subject: I think the measure is – have you examined in an objective way that you have done all you can for your patient – can you look yourself in the mirror and honestly say?

Researcher: When and how are you going to do that? Are you going to tell your future employer how you feel?

Subject: I think I might look to the medical profession to tell me. Are they referring to you? If I need something objective – are they requesting the patient be seen by me? Are they requesting Marie? Maybe I should change and say other than me at a level 70%, but it is the medical profession since we are judged by those who refer to us to some extent.

By colleagues, physician, patient and self and how often does the colleague come to me and ask me for my professional opinion?

Researcher: So you are used as a resource?

Subject: Can I throw a wrench into the works? I know someone whose patients will go back to that person and those patients are happy with that person and physician will probably refer to that person because they don't know better. But I know I would only send my worst enemy to that PT. So I am not sure that the people who are filling me are the ones? I will

have patients describe to me a good therapist, and I will find out that they are not doing what I think are standard procedures.

Researcher: How do you quantify or qualify? How are you going to write this down? Tools?

Patient satisfaction, patient volume, referral, self-assessment, peers?

Subject: It has to come back to objective outcomes. I guess you might look at in terms of types of pathology, but you have recently moved from advanced beginner to comp in a sports medicine ortho setting. A future employer might say what pathologies have you treated and what pathologies are you having difficulty with? What are your strengths and weaknesses? I have a pet peeve. It bothers me. I once had a colleague of mine say to me that if you don't touch the patient, it is not physical therapy – I beg to differ. I did not to do magic with my hands. I get paid for what I do. So if I go to a place that has a slap stick rehab, I would say I do not do a lot of manual stuff, and I treat my patients very well, and I know what to look for. If you want some sort of spinal therapist I am a novice. I have heard that if you don't touch the patient you are not a therapist but I think you have to know whether to touch them or not! That is the difference. It hits back to knowing. You are a technician – do you want to be technician or medical professional? You are not going to be a professional if you ask "why do I need to know about vena cava in a pregnant exercising patient." If the one in a million pregnant patient has a problem you will be able to do something about it. It is recognizing what you need to recognize. Some of this to me, where are you, I would probably answer it by the type of treats, how I treats and what I have seen – then that person will make up their own mind.

Researcher: If I say productivity to you what does it mean?

Subject: Productivity how many patients can you see in a day. But I think a lot of people won't admit that to you in the outpatient world. It is productivity where I leave that day how many patients did not do well? That is how I judge. I saw twenty five patients and did someone get lost between the cracks? How many and how many were quality? If twenty patients treated got good care, and none have authorization to come back in, you should have spent a little less time to make sure they could come back. Managing the patient caseload with all aspects of what that means. You should know your patient – if you can't mention a patient and you are not sure – a good clinical snap shot. Numbers do matter – there are too many people that are too in love with this one on one hour that can be a lot of wasted time – sometimes you need it. Productivity is all those things mopped together, but there is economical responsibility.

Researcher: Motivation?

Subject: My motivation is this – I do not care if my patient likes me or not. My job is to get you better and out of the office. Under the constraints of the health care system, it is not my job to hold your hand. I take what I do very seriously – my motivation is can I take a challenge clinically? Can I think critically? Can I differentially diagnose? My motivation – I want that patient to like me – he is not the nicest guy on the planet, but I felt better when I went there and he knows his stuff.

Researcher: What is step?

Subject: I think the profession needs to be objective or cut dry about how it evaluates people. There are a lot people walking around ... I just found that physician assistant's have to recertify every ten years. I may have to give hours, but I do not have to sit down and go through that again. If we want to consider ourselves as autonomous clinical scientists, it can

be an argument that you are asking all these questions and what is the next step? The next step is that we better make sure that everybody with the credentials really does deserve it. Every professional has it sluggards. The change in the guard in the profession is to make sure that we are not technicians. There are a lot of great therapists, but they are not practitioners; they are technicians. I am not sure that they problem solve that well. They are concerned about being nice to the patient – not thinking much beyond that. This is not buddy time – this is science. Patients want you to be a care taker. It is a dynamic practice – you need to be moving forward and not be stuck. The profession needs to get everyone on the same page. Everyone should be held to the evidence based science – you should be aware of the evidence out there. You should be aware that the research does not exist but my patient does get better. We need to get integrated the things that you have been talking about.

Researcher: Good!

Subject 210: New DPT

Researcher: You have read of informed consent and the levels of professional development and signed the consent form?

Subject: Yes.

Researcher: What is your date of birth?

Subject: January 22nd 1980.

Researcher: The highest pt degree that you have earned?

Subject: DPT.

Researcher: The year of your graduation?

Subject: 2005.

Researcher: The institution you attended?

Subject: The University of Massachusetts at Lowell.

Researcher: Do you have any other certifications?

Subject: No.

Researcher: How long have you been working in the pt profession

Subject: About one and a half years.

Researcher: How long have you been working in the op arena?

Subject: Same time.

Researcher: Have you done anything else in the outpatient arena?

Subject: I had internship in acute inpatient and neuro. Eight weeks each one. I was an aide during school for about five years in an outpatient setting

Researcher: In total including the years that you were an aide and now a qualified clinician, how long is that span?

Subject: About seven years.

Researcher: Can you give me an example of an interesting, difficult case that you tackled recently?

Subject: I recently had a patient, I have had many complex patients, but this one stood out. He was tackled in rugby on his neck from the side. He had all these neurological symptoms; he had numbness going down the side of his head, the base of skull, radiculopathy into the shoulder and he was such muscle guarding I could not perform many special test on him because of the guarding. Traction would not relieve him. He could not release the guarding. Very little would relieve his symptoms so it was challenging to think of what would relieve his symptoms. I just had to start with very light manual therapy and we are at the point of

postural re-ed. He still has the radicular symptoms, numbness in the fingers, and he is fighting the headaches every day. He is getting improvement but it is just frustrating.

Researcher: What we are going to dialogue about today is your experiences and to recall the experiences that molded how you currently work. Apply one of those levels to you.

Subject: I feel, I don't know – I am the advanced beginner, between the novice and advanced beginner. I have been treating in the outpatient ortho setting, I have been on internship, and I have been an aide for so long. I have seen very similar diagnoses over again. I feel that I am in the advanced beginner with the more common diagnoses. I feel that I can treat them because I have seen it before, and I know how to do it. If something comes I can go down a different alley and treat them in that way. I still see new things that I have never treated. In that aspect, I am a novice clinician. I still see a new diagnosis that I may get and still get so nervous and I wonder how I am going to treat, and I still have to ask experience clinicians all the time about what to do in this scenario. I am in between the novice and advance beginner.

Researcher: If I were to stand outside the window and watch you work, what would you look like?

Subject: I feel I would look pretty confident because I have to portray myself that way to my patients ,so they are not going to trust me if I am not confident. They probably think that I know what I am doing and what I am talking about. But inside, I am nervous with the newer things that I have not seen.

Researcher: How do you interact with a person that you are seeing for the first time in an initial exam?

Subject: I make sure that I introduce myself to the patient, and I say what we are going to be doing today. I sit down with them face to face making eye contact. I ask open ended

questions to let them answer me, but I redirect them if I need to. I just find out what they are here for and what I am going to be treating them for. I figure out where we are going with the eval, look at their measurements, discuss the plan of care, I find out the diagnosis, say where we are going to go from there and if they have any questions.

Researcher: How do you know that you have decided the best course of treatment for your patient?

Subject: If I see that same diagnosis over and over I am confident in what way I want to treat and I will know what works and does not work. I go head and try that. If it does I have to gear toward a different. I tell my patient that we are going to start light and see what they can tolerate. I can also see with their personality whether how much they can tolerate or not. Some personalities I start light automatically, and others I can start with more.

Researcher: How do you know that your intervention has been of benefit to the patient?

Subject: Each time they come into therapy, I ask them how they feel after the previous visit. I ask them their pain level. Sometimes they will tell that they feel so much better, and I will stay with those techniques and progress the program based on how they felt. Sometimes when they will say it did not work for them, I will switch gears right there and try something else.

Researcher: Give me an example of a competent clinician.

Subject: A competent clinician has a lot experience under their belt. They have been practicing for a while and they are familiar with just about every diagnoses. I am sure there will be new diagnoses that they will see now and then. They will know how to treat something from the beginning and know what the outcome will be. I feel that I am still in the

trial and error stage. They know what is going to be done and what is going to make them better. With more I experience, I will definitely get there.

Researcher: If you were standing outside the window of this competent person, what would they look like?

Subject: They would look very confident. I feel like I look like a competent practitioner from outside the window. They are interacting well with their patients. I feel like I look like that but I am just not there yet. I am hard on myself.

Researcher: Who is the proficient clinician and what do they look like? Who are they and what do they look like? How do you know they are proficient?

Subject: They have definitely been in the profession for a while. They are not older looking, you can tell. I am very young looking, and you can tell I am new in the profession, but you can tell they are slightly older looking. You can tell they have experience under their belt.

Researcher: Do you have a person in mind when you say that?

Subject: There are definitely some therapists that I work with that I feel are proficient. I call upon them and ask their opinions all the time. I trust what they say. But at the same time they don't know all the newer research too. We help each other out. You will see the old clinicians if they don't stay up with the new research, they lose track of what is going on. The newer therapists can help with that.

Researcher: So you don't think you can put a time frame on these?

Subject: I don't think so! I don't think younger people like us could be expert clinicians. There is so much you need to learn and so much we have not come across yet that we can't say that we know everything. I don't think that somebody with fifteen years experience may not be an expert.

Researcher: What does continuing education and experience have to do with the higher levels?

Subject: I think continued is extremely important to keep you up with the current research and improve upon any of your weaknesses. I mean you can just... I know there are many areas in which I can expand my knowledge. Anything that I can come across that I can better myself with it is important to take the cont Ed toward it. Specialties, there are things that I have not found out about yet in the outpatient setting. There is nothing in the op setting that has really gotten me yet, if I can find a niche and expand my knowledge, it will be a particular asset to me.

Researcher: So how does continuing education help with these levels? How would you describe continuing education in each of these levels? Motivation to learn – what does it mean to the levels?

Subject: The more continuing education you take, the further you will improve upon the profession and the faster you will advance through the stages. The learning piece helps you progress through the stages along with the experience.

Researcher: What courses have you taken?

Subject: I have taken general spine on lumbar and cervical. We just went to a talk where the area physicians talked about some of the typical symptoms. The institute of manual therapy came to Shaughnessy and gave us a three-day cervical course. They will be coming back to give us a shoulder course, and they have already done a lumbar course. Those are great because they spent two days. We have done about four or five and that is for stuff that has come in. I have not signed up for a course yet because I really don't know where I what to

go. Shaughnessy keeps bringing people in and offering us courses because I think they want us to learn and expand our knowledge.

Researcher: Who are the experts and what do they look like? You can give me an example of a person?

Subject: The expert, I feel that I can go – there have defiantly been a few experts that I work with. I can go to them with anything, and they will have an answer for me. They have dealt with it. Just say walking by a treatment room where they are treating, they have a full knowledgeable explanation about everything going on with the patient. Sometimes I give them the gist of it, but they have a thorough background understanding of everything in every diagnosis that they see. The doctors know them and refer to them specifically. The docs trust them and ask them for advice. That is an expert clinician when the doctors are seeking out advice from them. They just have so much experience under their belt that even anyone just below them will go and ask them for help. There are clinicians who I have worked with for five and ten years experience, and they will ask them questions. They still have answer for everything.

Researcher: What do they look like when they are working with a patient?

Subject: They are definitely confident. You can tell that they know what they are doing. They just have that demeanor about them that they know what they are doing. The patients look up to them, and I feel that the patients respect and look up to me, but I feel that sometimes I am so young, they see me as a kid treating them but they are completely respectful about everyone who sees them. They have great success in what they do.

Researcher: When I say productivity, what does that mean?

Subject: [Laugh] Productivity for this company means how many people we see in one given day. And are we at productivity?

Researcher: What does that say to you?

Subject: It means to me having a full case load but having enough time to treat each patient efficiently without being bombarded by another patient coming or cutting out early because we have to do an eval that we have to see. Having a full schedule but being able to treat everyone to the best of our ability within the time that we have.

Researcher: Do you think that that definition holds for all the levels?

Subject: I feel that your time is much more efficient as you become an expert. You know the best things to do and that's what you go for. Whereas people who are earlier in the stages, try everything and are trying to incorporate it into the treatment. Trying to get it all in but we don't quite know what works the best, so we give it all to that patient

Researcher: Motivation?

Subject: I feel personality plays a huge role in personality plus the patient personality. I mean some patients are just depressed. They are just pessimistic, and it is just hard to stay motivated to treat them. You want to stay with the bubbly up beat person, so it plays a huge role. It is a mind game – you have to stay motivated with those patients as well just to get them better as well. It is hard when they are not, but you have to stay with them and give them the best quality of care. The ones that do get better, it is almost a boost to get you through the day.

Researcher: Do you think that these levels exist really in PT?

Subject: Definitely! They could be narrowed down a bit. I feel like I am between two takes; I revert back to one and jump up to another one. But I feel that they definitely exist. The goal

was to become an expert clinician and that is the best, and a definite stage to achieve in PT, but to get there you are moving between stages.

Researcher: Who should tell you that you are at a certain level?

Subject: I feel myself! I know what I am capable of and what I have done in the past. I am a good person to tell me what I have done in the past, but I also get peer reviews, and an annual review from the supervisor. They can show us our strengths and weaknesses right there so that show you where you are at. We have satisfaction surveys to patients that looks at their quality of life and how they felt they did in therapy and what things we should have done differently. Getting those back too will show you where you are at.

Researcher: Do you think I am valid in asking these questions?

Subject: Absolutely! It actually helps me to get a better understanding of the whole profession and it allows you to see what is out there.

Researcher: Any other comments to add?

Subject: No.

Researcher: Thank you very much!

Subject: You are welcome!

Subject 211: New DPT

Researcher: You have read through the five levels of professional development and I have obtained your signature of consent

Subject: Yes.

Researcher: Date of birth?

Subject: August 13th 1982.

Researcher: The highest PT degree that you have earned?

Subject: Doctor of physical therapy.

Researcher: Year of graduation?

Subject: 2006.

Researcher: College or university that you attended

Subject: Northeastern University, Boston.

Researcher: Have you received any certifications or specialist credentials?

Subject: No.

Researcher: How long have you been working in the PT Profession?

Subject: As a licensed practitioner, one and a half years.

Researcher: How much time have you been working in PT? Were you a tech?

Subject: I have been doing this for six years.

Researcher: How long have you been working in the outpatient arena?

Subject: Including tech work, probably as about five years and as a licensed professional one and a half years.

Researcher: Have you participated in any clinical education or college teaching?

Subject: I have done a lot of clinical education [continuing education] through the company sponsored by the company as part of maintaining your license and then in school with projects associated with the department curriculum.

Researcher: Have you completed any outside course work over the last few years CEU stuff?

Subject: A number of them.

Researcher: What was the orientation?

Subject: The largest was Cyriax based training that I did last year. Over a two month period that I did it.

Researcher: Apply one of the levels of professional development to your current status. Can you tell me who you are?

Subject: I would definitely say competent and was pushing toward getting toward the proficient aspect of it. I don't know if I necessarily fell all that proficient yet. I would not necessarily call myself proficient yet because of experience time in the field. I think I fall into competent just because of that but I would like think I was proficient. PT is such a large field, that when you divide it down to orthopedics spinal neuro pediatric, I would say in all levels I was competent but I am not proficient I spinal rehab because I don't do enough of it. I've been an orthopedic student tech therapist. So I think that's where the question mark is whether one or the other. I think it's hard to say. As far as orthopedic PT goes, I would say more toward proficient. But if you said spinal rehab, I would say I'm competent pediatric I'm competent. I think that falls in line with the whole push for direct access with PT. I'd like to think that I would be proficient enough to say, person comes in – walks in, I can't treat this or this is not right for this place. You need to go see your primary, you need to go see your orthopedic or you need to walk to the hospital or you need to get someone to drive you to the hospital right now. You need to be down there. I would like to say that I am proficient in that manner to look at that someone and say are you appropriate for this setting.

Researcher: Let's go to the patient interaction thing and understanding. Describe how you interact with the patient for the first time. You talk about the quality of interaction with your patient. If I were standing outside of the window and watched you interact with the patient

for the first time plus tell me what you do? What's going on? What do you look like and what do you sound like?

Subject: I would say for me I'm right off the bat, eye contact and smiles. I'm a smiley person and if you ask anyone one in the clinic, there is rarely a time when I am not. I like to think that if I look relaxed and not necessarily look defensive. Let them sort of come to me rather than me, boom, attacking into them. I don't like to walk and say hi what's going on with you. I hear it from a number of patients with doctors, where the doctor walks in has one hand on the door ready to walk out the door, and I would like to think they could sit there and talk to me for six hours if they wanted to. I think that's a part of being approachable to them and very relaxed. If you are looking from another room it is not me standing over them. It's me sitting with them, looking at them, talking with any family members. They're not ignoring the family member and as well as I have those family members answering the question, but I still direct the questions to the patient because they know how it feels and see what their face is and their reactions.

Researcher: How do you decide how to intervene for your patient and choose the proper course of action?

It's figuring out how to get them back to doing what their daily routine is. Whether it is sitting at a desk eight hours or day or caring for their kids. What are they going to be doing? How active are they? Obviously I am not going to treat my eighty three year old the same as I am going to treat my sixteen year old. But my sixteen year old who play lacrosse in the spring and three seasons of sports is used to being pushed and used to being coached. And I think that it is part of the orthopedic setting being affiliated with the high schools. I know they are coming from that setting and know what they are used to. And that is part of what I

take in during my subject examination of them. What do you do? What do you do during your day? I am not going to put someone who sits at a desk for eight hours and then I go home and sit around doing a few things at home on a high level cardiac equipment for eight minutes as say I would my sixteen years old. It just depends on what I need to get them back to and if I can get them how I can get them back there. Everybody loves heat, even I love heat. But it is not going to get me... unless it is appropriate at that moment for that person giving them that every time is not going to get them back to what they are doing during the day. It makes them feel great for ten minutes. You are seeing me for an hour or an hour and a half and what are you doing for the other twenty three to twenty four hours of the day? What do I need to know and make sure that you can do at home? It is only them an hour, an hour and a half max in the clinic with them so what can you do independently. And it's getting them onto that independent function a little bit more. I think that's how I determine their daily routines and daily activities of how I get them going

Researcher: How do you decide that your patient has benefited from your intervention? How do know you guys are cooked?

Subject: I base on both subjective and objective on the point that my facility tends to get a lot of post ops. So I am looking objectively at those but at the same time I will ask them how are you feeling? I often will ask them is 100%, where you want to be? Where are you right now? And if they are telling me that they are 20%, something is not right. If I have seen you for six visits and we are not changing anything, either we need to change our plan of what we are treating and how we are doing it or I need to send you back and we need to find another method. I find that there are times when people get strung on too long and it's being responsible on yourself to understand that you are not helping them at this point and to say

it's ok that I am not, I have tried but I need to be aware enough to say that this is not working we need to find another option. Let me help you figure out another path., whether that be referring to the doctor, whether that be sitting down with the patient and the doctor. I have the beauty of being able to interact with the doctors and being able to say look at this patient, and this patient, this patient of yours this one's doing great, this one is progressing well, this one is close to discharge, this one is not getting any better. Do you have any suggestions. You have to realize within yourself that it is ok that you are not going to fix everybody. There are people that I am not going to be able to do anything for, but if I can help them in another way for their care, then that's my way of helping them.

Researcher: You alluded to how you interact with other disciplines and other folks involved in the case? How do you interact with other PT's?

Subject: I have one to four therapists around at a time, all with their own insight. The beauty of it is that I have a hand therapist with thirty plus years of occupational therapy experience. It is nice as a young therapist to go to someone with a lot of different setting experiences lots of different experiences with cases workers. I can go to her to ask about ideas and lots of PT around. If I don't like who is in the office, I can call another facility. I think that helps keep me fresh, treatment wise as well. I can talk to someone, and they will give me new techniques and new activities. For me, it works well as a PT, I have the resources right there in the clinic with me. The beauty of it is even after evals I can come out of the booth and ask someone to take a look at this interesting case – just on the educational level. I have ATC's in there, and I can show them an interesting case; that is nice to be able to do that.

Researcher: I want to tell me who the other levels are. Pick the next level to discuss. Who were you at that time? What was going on and when was it?

Subject: Reading through this the first time I had to look at where and when I was at each stage to determine where I am now. The novice was me entering PT school, never actually being in a PT clinic and me having that freshman year and having that first class where everything is abbreviations. You learn that this is a walker, a cane, two point gait basics. That was the novice. When I got to the advanced beginner, I went to a school that was a cooperative education program so it was a year round school where you spent six months class and then you spent six months on work experience, and it was a full day, no classes on work experience. My work as a co-op student was when I started to fall into the advanced beginner. It was now not just dealing with patients. It was hearing about patients; it was seeing and doing PT. Progressing down to the competent level you start going out on clinical affils and interacting with. Now we are actually dealing with these patients on clinical; my mind is going and thinking. It is not that I have graduated PT school and I am actually into it; it has already been six years of being in that PT school dealing with it. The expert to me expert means one clinical experience, two more along the lines. You are research based promoting the field to your other peers and sort of those that you feel are more expert to you and go to them and have intelligent conversations with them. I am not at that level; I am getting my feet wet. I still want to treat, I want to take in information; I am not creating new information yet. That is part of the expert, create information and pass it on to the others. The expert has research in my mind and I am not there yet. I think that maybe in fifteen years, this is all going to change for me! That anatomy to me is still fresh. I did neuro evals no more than a year ago on affils. You ask me in ten years to do a full neuro eval, I am back to

advanced beginner. Even though experience is going to bring you to the higher levels as far as getting to the expert clinician, but at the same time it is going to change what the novice is. At the moment I have a little, this why it works out in our clinic. The clinicians who have worked fifteen plus years in the field will come to me and ask what to do with a patient because I have seen this condition more recently than they have and they are fresh in my mind. I understand why it is like that for them. I see it in particular with one therapist! He knows. You give him that patient and he knows it. He has been there, done that knows it. You bring in a five year child – that's you, not me. He does great with the Medicare, great with the low backs. That's his area even though it is still the same area and still the same doctors referring and all those elements the same, schedule time frame and all that – he is just not there and the break lights are there.

Researcher: Describe for me who the expert is? If he is interacting with – what is his interaction with a patient like?

Subject: With the patient that he is not an expert with or the patient that he is?

Researcher: What do they look like when they interact with the patient?

Subject: They don't come off as I don't know what to do with you. They know how to get the patient started but are confident enough to say, let's get you on to so and so's schedule because you will do better with them. For our profession, it is the patient sitting in front of you, the person. Not a plate, and you are going to do whatever is needed to help them. You are still going to approach them that way. I don't think that initial interaction is going to be any different but it is where do I go with this patient and how am I going to get them to maximize their potential? Am I really giving them the best?

Researcher: Is the expert going to cut to the chase with both types of patients and get to the crux?

Subject: Yes, to best of their ability on it. The reason I say that is the easiest example is perhaps they don't know special tests for this particular patient but they do what they know to the best of their ability to bring in someone else who is the expert in that area who can go into a wide review and pinpoint the problem down. They are doing the best to their own ability and referring after accepting what the best of their own ability is. Yes, I think that they are doing to the best of their ability for the both cases. There are things you like. There are things you like to see in PT. I really like knees. That does not mean that I do not know anything about shoulders or backs – I am still treating them. You give me a knee, and I can think of a million and one things to do with that. I am less able to think about what to do with a back but I am always learning and striving so that I can add to that and become better in that area especially if you see the need for it in your practice. I am more likely to pick up an ortho journal than I am to look at an neuro rehab article. The occasional neuron referral, I have said to the patient that I do not think that this is the best place for you. We are a busy clinic and I think they would get better treatment with the direct one on one for 45 minutes with a therapist, and that's part of being confident in yourself and your own abilities.

Researcher: Can you tell me a little bit more about the earlier ones. You gave me a nice example for expert and described the competent and proficient.

Subject: For me I based all on a student level because that is what is closest to me. The novice to me is the deer in headlights look [Laugh]. It's [arms open] all this, just, BOOM! You want me to do what with who? You want me to actually do that? You are going to have to do it at some point. That is the novice. Getting to the advanced beginner is saying would

you like me to help you with that? When I look at it at the student cooperative level, I look at it as you have your therapist and the student is as quiet as a ghost wondering how the CI did that or knows to be on the right track. The advanced beginner offers help to do the job and wants to get in there. The progression is to the doing! I think that is how you determine where you go there. Are you doing it? Seeing it and all this coming at you is the novice. I can remember being the novice and being in a hospital and thinking about how does the therapist remember what they did that a week ago and what the patient did? By your sixth year of pt school, someone says to you, rotator cuff, you know exactly what they are talking about. The novice would wonder where it is.

Researcher: Can you apply a time frame to these? Or how would you separate these?

Subject: To me it is the experience level with the patient. I know people who are very, very book smart. They can list off things well beyond me especially coming straight out of school. On a professional level, it is how you interact with people and how I determined where I am and am I comfortable working with this person? We have a new person in the clinic who is an intelligent guy. He does not understand that patient interaction part and that is such a significant element to being able to move up through levels. It is the situation! You may have a patient crying to you and you running in a back room saying I can't deal with this or you are working with situation and finding ways of helping them understand why they are there. I think that is why I base it on experience, and I would like to put time frames on it, but I think that the novice and the advanced beginner, you are looking at students and graduates. I would like to hope that everyone graduating is at a competent clinician. But I think it depends on their experience.

Researcher: Who is going to tell you what level you are?

Subject: Me, self! It is where I am comfortable and feel. 80% self and you do it, have other clinicians. Someone has got to help you. Mostly internal and then someone has to give it to you. It comes from patients too! When you have someone call you and say that they are sending their brother or their daughter to me that is a family member and makes me think, that is what I like to hear.

Researcher: Can you tell me how are you measured? What are the measures of what level you are?

Subject: I think the measure is – have you examined in an objective way that you have done all you can for your patient – can you look yourself in the mirror and honestly say?

Researcher: When and how are you going to do that? Are you going to tell your future employer how you feel?

Subject: I think I might look to the medical profession to tell me. Are they referring to you?

Researcher: If I need something objective – are they requesting the patient be seen by me? Are they requesting Marie?

Subject: By colleagues, physician, patient and self and how often does the colleague come to me and ask me for my professional opinion.

Researcher: So you are used as a resource?

Subject: Yes. That makes me feel wanted and important. And are patients coming back to see me? Are they coming back for another diagnosis to see me? Are they referring family and friends? That external stuff!

Researcher: How do you quantify or qualify? How are you going to write this down? Tools? Patient satisfaction, patient volume, referral, self-assessment, peers?

Subject: What are your strengths and weaknesses? When you go to a surgeon, you ask how many of these have you done in a year? He may say a hundred or occasional. I am going to go to the one who has done one hundred. If I can say I have seen one hundred post op slap repairs and one CP, that is a way for me to quantify and say this is what I do to break down. If I went to interview at a spinal rehab and said zero patients, they would say, novice or advanced beginner. If I were to go to an op sports facility and answer with this many or so many a day. I have heard that if you don't touch the patient you are not a therapist but I think you have to know whether to touch them or not! That is the difference. It hits back to knowing.

Researcher: If I say productivity to you what does it mean?

Subject: Did I talk to everyone today or is there someone I wished to speak to again? If I can think of everyone, and I had at least five minute conversation with them, I go home and fine. If there is someone that I did not spend that much time with, that is not good productivity.

How well was it done and not just how many. Whether that is in PT or anything. Also if I can have the patient in my head, and I know enough about them that I do not have to open a chart. You give me a name and I can tell you, that is productivity.

It is not taking time away from the patients to go pull charts. There is a little bit of efficiency associated with productivity.

Researcher: Motivation?

Subject: My motivation is loving what I do and wanting to do it everyday and being the best at it. Whether that be on motivation level of more experience or clinical research, it is how do I be the best at what I am doing so I can give the best care. Driving to work everyday is not negative. It is great and looking forward to what is ahead.

Researcher: Should I be asking these questions? Valid?

Subject: Sure! I think they are valid, but I think there is another step that has to be taken, and I am not sure of what it is?

Researcher: What is step?

Subject: I think that professional development – where are we and what are we doing – it is that moving forward. You know when to council patients or see if there is an advantage taken. You have to be aware of that. It is nice to be able to say why are you this and have solid evidence aside from this is what I always do, instead individualization. Being aware of the peripheral vision that the research provides.

Researcher: Good!

Subject 212: New DPT

Researcher: You have read the informed consent and the levels of professional development and signed the consent form?

Subject: Yes

Researcher: Your date of birth?

Subject: September 7th 1979.

Researcher: The highest PT degree that you have earned?

Subject: DPT.

Researcher: The year of your graduation?

Subject: 2005.

Researcher: The institution you attended?

Subject: The University of Massachusetts at Lowell.

Researcher: How long have you been working in the PT profession?

Subject: About one and a half years.

Researcher: Have you received any other certifications?

Subject: No.

Researcher: How long have you been in the PT profession?

Subject: One and a half years.

Researcher: Have you done anything else in the outpatient arena?

Subject: I had internships in outpatient, acute care, neuro, and I was also a therapy aide for five years total during school in an outpatient clinic.

Researcher: In total, including the years that you were a aide and now a qualified clinician, how long is that span?

Subject: About seven years.

Researcher: Can you give me an example of an interesting, difficult case that you tackled recently?

Subject: Like complex? I have so many patients. I have a patient that I have been dealing with for two to three months for shoulder instability. The doctor did not know what was going on. He received an MRI and x-ray that did not show any muscle damage. He could not raise his arms above eighty degrees. He tried the standard ultrasound, passive ROM and joint mobs. He kept regressing, so finally I decided to hold the stretch and joint mobility and focus on the exercise to increase strength. Now his shoulder abduction is one hundred and seventy, flexion is one hundred and fifty. He is still getting pain but much better. We have not done much for him, but the exercise and iontophoresis seems to have helped. It took me about two

to three weeks to figure out what would give him some sort of relief and what was going to help him. I sort of went with it. He showed great improvement.

Researcher: What are we going to dialogue about today is your experience and to recall the experiences that molded how you currently work. Apply one of those levels to you.

Subject: I was thinking of going between advanced beginner because I still have to refer to my peers. With some diagnoses like the easier ones, I am a competent clinician. I think that this spectrum should here should be functional where sometimes you can jump back to the novice when you see something that you have never seen before or something totally different or unexpected. I have had a patient that fell off a horse – how often do you see a traumatic accident? Even a competent clinician may drop back down to a novice because they have never seen anything like that. There are so many things going on. At some point with the easier things, like arthritis, that is simpler. At my point, I could move up to the competent clinician because I have had success treating that before. You move back down to the novice because you try something, maybe the normal treatment that you have tried in the past, it does not work and you have to go and talk to somebody and get a little feedback from the experienced clinician. You bounce all the way back to the beginning because you see something that you haven't ever seen before that is totally unexpected and while not seen everyday. Not a typical type case that you don't get on average.

Researcher: If I were to stand outside the window and watch you work, what would you look like?

Subject: I would look like a profession. I try to portray myself like that. If you act immature and act as if you don't know what you are doing, then I think that you may loose some trust in the patient if you do not have a 100% correct answer. It is your responsibility to tell the

person no and be up front with him and act as professional as you can. No one wants to see a person who a doctor or PT not act at that level.

Researcher: How do you interact with a person that you are seeing for the first time in an initial exam?

Subject: I think it is difficult. It depends on the patient! You see some people who are reading to just start talking and take control of the evaluation and with those people, you need to tell them that you are in charge and take back control before they go on. There are people who let you talk first, and it is easier. You let those people guide you through the eval. You have to be confident. Let them know you are boss and that you need to accomplish something with the evaluation.

Researcher: How do you know that you have decided the best course of treatment for your patient?

Subject: Initially, if you don't know your patient, it is a little of trial and error. I tell the patient that the first few treatments is to figure out what they can tolerate. You could have two patients with the same diagnosis and you choose to exercise and stretch, and they can be totally different. You need to take the eval into consideration and the first few evals to see if what they are doing, they are tolerating.

Researcher: How do you know that your intervention has been of benefit to the patient?

Subject: I will stick to the treatment goal because it is kind of policy that we ask about pain levels and things like that. But I usually ask about pain level and also ask if they are better, worse or even the same. A lot of times when I introduce e-stim, ultrasound or ice, I tell the person to think about how they felt not just after the treatment and even the next day. You may not see a patient for two or three days. I even ask them to log how they felt, not just

right after treatment or even the next day. It may be extreme pain, some relief or three or four hours of relief the next day. Just to see and it helps, see if what we are doing is helpful. A patient can say that once you put them on e-stim, they think it helps, but they need to give you more feedback. I tell people to try to remember the next day if they still have lasting relief or no help at all; you gauge if you are doing if what you are doing is correct.

Researcher: Give me an example of a competent clinician?

Subject: I think that anybody can be competent in some sort of treatment or diagnosis. You can have a competent clinician. Competent comes when you see repeats and you can recall what works. It is a lot of recall and that is what is starting to happen with me now. You know what works and know what does not work. You kind of avoid that trial and error that you had in the beginning because you know what works and something that may not have worked in the past. It has a lot to do with competence. You can recall on your past and you may not be an expert at it, but the classification is recall and drawing on you learned in the past. In your first six months, you do not have a past to draw on. After a year and half you can relate to people and name some of the typical symptoms that you have seen and draw on your past experience.

Researcher: If you were standing outside the window of this competent person, what would they look like?

Subject: They would look very confident. I feel like I look like a competent practitioner from outside the window. They are interacting well with their patients. I feel like I look like that but I am just not there yet. I am hard on myself.

Researcher: Who is the proficient clinician and what do they look like? Who are they and what do they look like? How do you know they are proficient?

Subject: For me, there is a difference between the proficient and the competent. It is hard to explain, but they are even better. They have seen the diagnosis, they know exactly what they are going to do, they know how to treat it and even the rare cases that come across very often, they know how to treat it. Because they have seen it before, and they know it is going to happen with it and they know what to do.

Researcher: Do you have a person in mind when you say that?

Subject: I think that there is definitely a difference between the competent and proficient clinician. A lot of it is actually experience and what you have seen. You can't say after five years you are going to be proficient, because you may not.

Researcher: So you don't think you can put a time frame on these?

Subject: No, I don't think so! Definitely not. Because you can have somebody who has been working for ten years who does not apply themselves, does not take any education courses, kind of floats through and they should be considered competent and proficient or expert. The level is based on what you have put into it in the past, present and what you want to put into it.

Researcher: What does continuing education and experience have to do with the higher levels?

Subject: I think that continuing education – when we come out of school and ask us if we have specialties, no. You are a generalist who has learned a little bit about everything, and you are meant to specialize in peds or geriatrics. Some therapists can take the SI joint. I work with someone who I consider an expert and the SI joint is her thing. I refer to her for that. And we have therapist who have worked with her for fifteen years with her and still refer to

her because she can take one look at this person and see what is wrong. Or just feel the SI joint in a couple of directions and say fix it, and just fixes it.

Researcher: So how does continuing education help with these levels? How would you describe continuing education in each of these levels? Motivation to learn – what does it mean to the levels?

Subject: I think it is how much you put into it too. The other thing is that for Massachusetts you are not forced to take CEU's as a PT. I do not agree with this. I have taken courses, and I look to take courses. I get the cue but I don't need them. You could have people take CEU's if it was required. I work with people who have to take a ridiculous number of CEU's like athletic trainers just to keep up their license. They just take courses just to take them. They really don't pay attention. Continuing education could advance you in these areas if you want to but you may be forced into it. I am against Massachusetts not requiring CEU's for PT because it lets people slip through the cracks. Some people are lazy and some just don't want to pay the money for it. I think that if you expand in this spectrum, you have to take the courses and learn from them and not just take it to just get credit for it.

Researcher: What courses have you taken?

Subject: I have taken general spine on lumbar and cervical. We just went to a talk where the area physicians talked about some of the typical symptoms. The Institute of Manual Therapy came to Shaughnessy and gave us a three-day cervical course. They will be coming back to give us a shoulder course, and they have already done a lumbar course. Those are great because they spent two days. We have done about four or five, and that is for stuff that has come in. I have not signed up for a course yet because I really don't know where I what to

go. Shaughnessy keeps bringing people in and offering us courses because I think they want us to learn and expand our knowledge.

Researcher: Who are the experts and what do they look like? You can give me an example of a person?

Subject: I work with an expert clinician, and she has been a PT for eighteen years. I don't think we have ever stumped her. We ask her a question, and she knows something about it. I have a pediatric RSD patient. She presented very different! She has some stuff like headaches and sores in her mouth which are typically not seen a lot. She did not present with the glossy skin or a trauma. I went to this expert, and she came over and gave her input on it. She was able to recall things and question me about what I had tried. Some of it I had never thought of before, some of it worked and some of it did not. She was able to add more input into it because she has seen so many things. I only saw RSD once with this girl and before I saw it as an aide. But that was two totally separate things. The one I saw as a therapy aide was a traumatic entry into RSD, and this one there was no cause for it. One day she had a little calf pain and she has RSD. She had an extensive work up and it was proven to be RSD. This person that I asked to help me eventually she had a lot of input into things I did not think of before.

Researcher: What does she look like when she is working the expert?

Subject: She is confident, professional. The patients definitely respect her. You know when people keep coming back to her. She fixed me once, she can fix me again. She has seen people five, six times in their whole career. People just keep coming back to her – that is the sign of an expert. People see your work, they know you are a professional and you can help them.

Researcher: Is she a PT of choice?

Subject: Yes, by a lot of people.

Researcher: What do they look like when they are working with a patient?

Subject: They are definitely confident. You can tell that they know what they are doing. They just have that demeanor about them that they know what they are doing. The patients look up to them, and I feel that the patients respect and look up to me but I feel that sometimes I am so young, they see me as a kid treating them but they are completely respectful about everyone who sees them. They have great success in what they do.

Researcher: When I say productivity what does that mean?

Subject: [Laugh] Are we at productivity. We need to be always better at productivity hence the look.

Researcher: What does to you?

Subject: It means to me having a full case load, but having enough time to treat each patient efficiently without being bombarded by another patient coming or cutting out early because we having to do an eval that we have to see. Having a full schedule but being able to treat everyone to the best of our ability within the time that we have.

Researcher: Do you think that that definition holds for all the levels?

Subject: I think that productivity has to do with the quality of care too. If you are shooting for a higher productivity, you have to make sure that you are shooting for that level and you can give everybody the best quality care that you can. Every therapist should shoot for that. It does not matter if you are a novice or an expert; everybody should be getting quality care no matter what. That is the thing that these have in common or at least they should. Whether you are coming out of school or you have been doing this for twenty years, you should treat

everyone equally, give them the same quality of care that you would want. If productivity is hammered into you and you need to see more, then I think the quality of care could be sacrificed.

Researcher: Motivation?

Subject: As far as pt is concerned – I get motivated when people are getting better. If I had a caseload where nobody was getting better, I would not be very motivated to get up and go to work or see that person. When the 3:30 person is here and they are getting better, I am more motivated to get started. But if I had a caseload where everybody was staying stable and not getting better, it would not be good. It kind of drives you when they are getting better or most of them are getting better. I think that you are always going to have people who are not getting better with therapy, but motivation is important.

Researcher: Do you think that these levels exist really in PT?

Subject: I feel that this is a working plan where you can advance or go back based on what is going on and what type of patient you are seeing and your experience with certain diagnoses. You can defiantly apply these to PT.

Researcher: Who should tell you that you are at a certain level?

Subject: The patient satisfaction surveys, your superiors as far as the expert clinicians. People who have more experience than you should be able to gauge where you are. If someone has been a PT for ten or fifteen years has a perspective of where you are because they remember when they were where you are now. Yes, you do get feedback of people, supervisor, peers, patients, doctors. I don't think that one person can assign you to a specific category. It is a combo of a lot of people and multiple sources of feedback.

Researcher: Do you think I am valid in asking these questions?

Subject: I think it is important. We have seen scales like this in school but since being out of school, I have not actually sat down and even thought of that. I think we did work with a scale like this, and we worked with that in school, but since we have graduated we have not sat back and thought about actually where we are.

Researcher: Any other comments to add?

Subject: No.

Researcher: Thank you very much!

Subject: You are welcome.

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