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LEARNING TO WALK THE TALK
COGNITIVE MODELS IMPROVE PRESENTATION SKILLS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Vocational Education

by
Adrienne Lynne Carter
June 2000

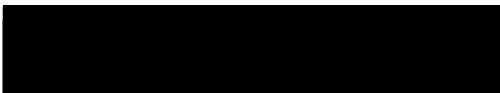
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ABSTRACT

This project discusses the problem of under prepared adults returning to the academic arena in larger numbers than ever before. Some come from employment positions where they fail to thrive. Many are even lacking the ability to perform basic tasks in reading, mathematics, and critical thinking. Research indicates today's adult learners need to acquire the knowledge and skills necessary to fulfill the demands of growing industries. Private post-secondary proprietary vocational education systems must be willing to embrace a paradigm concerned with presenting information using methodologies that match student learning styles. A careful study of research based on adult learners, as well as learning and teaching styles, indicates proprietary vocational instructors must incorporate cognitive modalities into their presentations. The project presents a seminar stressing how to incorporate learning models into existing curricula to provide proprietary vocational educators with the tools calculated to not only fill employment requirements for employee placement, but also to provide industry with individuals destined for advancement in the highly competitive industries that society needs to power economy.

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My educational journey has been encouraged and assisted by many special people. My parents started the ball rolling by emphasizing the importance of a good education. Claire Sneed and Paula Campbell were excellent examples of successful career oriented women that I chose to follow. Allen Truell, Ph.D. taught me to set high standards by introducing me to the concept of benchmarks and expecting me to always improve upon them. My thesis was shepherded through many incarnations under the watchful and caring eyes of Joseph Scarcella, Ph.D. to whom I am exceedingly grateful. Tim Thelander gave freely of his computer expertise. I took advantage of him and he never lost his smile. I appreciate the time, energy, and support from my readers, Thom Gehring, Ph.D., and Kenneth Lane, Ed.D. I also want to thank Ron Pendelton, Ph.D. for his continued interest in my scholastic future. My friend and "Thesis Doctor," Debi Hrisoulas, without your attention to the details of correct composition, my writing abilities would have been woefully deficient and this thesis would still be unpublishable. And finally, the catalyst that placed my foot upon the master's path, my friend and fellow traveler, Donna Shea, thanks!

DEDICATION

Rowena

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CHAPTER ONE

Background

Introduction

Today's economy depends upon a constant reservoir of employable adults to fuel the needs of fast paced service oriented industries. Recent studies show that many adults today are entering the employment arena without adequate skills in reading, mathematics, and critical thinking, which makes it difficult to acquire and maintain employment (Spoon & Schell, 1998). The end result is that under prepared adults negatively affect the economy. It is also a fact that many adult learners enter post-secondary proprietary vocational schools with unsuccessful K-12 exposure. Given these considerations, the basis for this project hinges on the hypothesis that by stressing individual learning styles adult learners will show improved academic and employment success.

Teaching vocational educators both cognitive and metacognitive concepts, as well as the ability to discern learning styles, gives them the tools needed to help provide adult learners attain a valuable educational experience. This change in presentation must begin with the incorporation of multiple intelligence theory when designing presentations (Dunn, Griggs, Olson, Beasley & Gorman, 1995).

Curricula that stress competency in these principles provide instructors with the power to positively impact classroom dynamics. The private post-secondary proprietary vocational classroom may ultimately prove to be the last bastion of help for adult learners and the economy.

Context of the Problem

Learning is a complex assortment of physiological, psychological, and social processes that influence behavior. They also change cognitive or emotional orientation by selective interpretation of information (O'Connor, 1999). How this information is packaged determines the brain's input pathway or avenue. Each avenue in the brain is ruled by a separate sensory receiving mechanism. Packaging data to utilize multiple mechanisms enhances the cognitive potential by exposing learners to a differentiated information mixture, thereby improving their selection of interpretive choices (Kolb, 1984). Enabling the student to select these interpretive choices stimulates the appropriate avenues, increasing retention and understanding of the materials being presented.

Current pedagogy stresses verbal presentation, or lecture format, in the typical classroom. This creates an "I talk, you listen" atmosphere (Williamson, 1998). For many students, this methodology limits the ability to take in,

process, and internalize information on multiple levels (Shaughnessy, 1998). A study using the Canfield Learning Styles Inventory test determined the best learning mode for International MBA students was direct experience or activity based learning. For 80% of the tested students this was diametrically opposed to their preferred method. The preferred method was defined as: That method students were exposed to most often during their previous educational experiences with the aforementioned lecture method proven to be the most prevalent (Ladd and Ruby, 1999). Students learn best when knowledge is presented in a manner they trust and are comfortable with (O'Connor, 1999). When instructors use multiple delivery systems, chances of information entering a cognitive slot, recognized and suited to that student's individual learning style, are improved.

Students completing the K-12 arena with marginal to poor cognitive skills fail to thrive or advance in the highly competitive employment climate. Many return back to private post-secondary proprietary schools, community colleges, or universities as volunteer adult learners. These voluntary learners bring with them all the insecurities and disappointments acquired during their previous, mandated, educational experience.

Post-secondary learning experiences are being overshadowed by these very same past failures. Future proprietary vocational educators must adopt presentation styles that emphasize the physiological, psychological, and social processes needed to impact cognitive or emotional orientation, thus ensuring an exciting, productive learning experience rich in motivation. When an educator fails to prevent motivational problems, the results are resistance, failure, and dissatisfaction with the whole learning environment. Proprietary educational methodology needs to change to elevate students to more productive heights rich in cognitive experiences.

Proprietary vocational institutions traditionally select their teachers based on expertise in a chosen field, not because they have extensive academic background that includes teacher training (Spoon & Schell, 1998). When placed in a classroom, these educators teach in the same manner as they were taught (Williamson, 1998). Lecture presentations, generally preset by the proprietary corporation and heavily structured, are designed to deliver and address theory, but fall short because they fail to address the student's learning style (Miglietti & Strange, 1998). Additionally, proprietary instructors are often incapable of adjusting these presentations to meet student

needs. In short, these educators were never trained to incorporate learning styles into lectures, and therefore do not understand the importance of learning styles as they relate to the success of the adult learner. It is also important to note that in almost all cases, neither does current proprietary vocational curricula incorporate learning styles.

Vocational educators must prepare to meet the demands of these adult learners by acquiring presentation skills to accommodate the following four cognitive preferences:

1. Environmental and instructional preferences. Control physical classroom dynamics, like sound, temperature, light, class design, and instructional dynamics such as presentation style.
2. Sociological interaction preferences. Deal with student epistemological strategies or accepted study routines and tools.
3. Information processing preferences. Incorporate psychological cognitive models such as left brain/right brain, quadrant theory of "wholistic learning," and multiple intelligences (Kolb, 1977 & Gardner, 1993).
4. Personality preferences. These revolve around internal tendencies and attitudes defined by personality

indicators such as extroverts/introverts,
judging/perceiving, and sensing/intuition
(Myers-Briggs, 1978).

Adjusting instructional presentation to encompass student needs is a learned skill currently being taught to prospective teachers following the collegiate tract, not the vocational tract.

As stated in the introduction, post-secondary proprietary vocational instructors usually enter the teaching field by way of their professional expertise. Formal teacher training is limited to short periods of observation and sporadic peer reviews (Stice, 1998). Unless they return to academia, cognitive modalities, and learning styles are concepts with little or no meaning. These instructors need a program to teach them cognitive and metacognitive concepts. This program should incorporate a hands-on, how-to approach. It should instill confidence in their ability to customize their teaching style to meet the needs of returning adult learners. This type of program will benefit both educators and students.

Purpose of the Project

This project was designed to ascertain the need for the development of a program intended to educate post-secondary proprietary vocational instructors in cognitive and

metacognitive concepts. Through implementation of this program, educators are taught how to incorporate learning styles and multiple intelligences into teaching presentations. Testing and implementation skills are discussed in the program context. Performance objectives are designed that are observable and testable. This program was designed to take advantage of the interactive seminar format.

Significance of the Project

As proprietary educators are learning to adjust classroom dynamics to facilitate an improved learning environment they gain valuable skills that allow them to switch from a teacher-oriented presentation format to one more learner-oriented. They will be able to determine a student's learning style, their own teaching style, and how to develop congruency between the two. Training is designed to allow educators to not only interpret cognitive tests, but construct teaching presentations designed to stimulate multiple information receiving mechanisms, as well. As a consequence, this provides the learner with an educational environment rich in the information needed to achieve desired success levels.

Williamson (1998) described a need for educator training based on the educator being able to model by

"walking the talk." In essence, following training and application, prepared educators will move beyond simple verbal parroting in classroom presentations. By empowering proprietary educators with the understanding of successful learning strategies and delivery methods, they can move beyond standard lecture-based delivery into an arena fueled by educator confidence that enables students to visualize content relevance. Once the student recognizes the relevancy of the information, it is embraced to meet individualized educational goals. This project helps proprietary educators bring adult learners into the 21st Century with the ability to receive information and process it into the knowledge needed to make career changes, improve employment opportunities, and enhance quality of life.

Assumptions

The following assumptions were made regarding this project:

1. Adult learners are impacted by previous educational experiences, making them different from younger learners.
2. Some students, by nature of learning style, receive and retain more from current educational curricula than others.

3. Information can, and should, be presented in different ways, as documented in multiple intelligence studies.
4. Metacognitive training of educators results in adult learners transitioning into the employment sector with marketable education and skills.
5. An institution's program and instructor training can be facilitated through identification of student population dynamics.
6. Identification and implementation of the proposed program enables students to receive and process information.
7. Markedly opinionated educational trends and issues prevent agreement that would promote widespread implementation.

Limitations and Delimitations

Limitations and delimitations that surfaced during the development of this project are presented in the following section.

Limitations. The following limitations apply to this project:

1. Currently published evaluation instruments limited the scope of this project.
2. The project was designed to target private post-secondary proprietary educators.

3. The project targets adult learners with previous educational deficiencies pursuing vocational education.

Delimitations. The following delimitations apply to this project:

1. This project can be generalized to encompass traditional educators in K-12 and public post-secondary institutions.
2. This project can also be generalized to benefit students of all ages and disciplines.

Definition of Terms

The following terms are defined as they apply to this project.

Adult learner--Adults voluntarily returning to education manifest the following traits: Self-directed learners, capable of critical reflection, who prefer experiential learning. They possess a self-conscious awareness of how it is they come to know what they know; an awareness of the reasoning, assumptions, evidence and justifications that underlie our beliefs that something is true (Brookfield, 1995).

Andragogy--Art and science of helping adults learn; learner focused education (Knowles, 1973).

Classroom Dynamics--All the things within a classroom that impact positively or negatively on student learning, such as seating/working arrangements, student interactive selections, presentation format, assignments evaluations, and environmental factors like lighting, heat, and noise level (Dunn & Dunn, 1975).

Cognitive Concepts--Theories developed by such educational philosophers as Maslow, Rogers, and Gardner that explain how the brain takes in, applies, analyzes, synthesizes, and evaluates knowledge of information, facts, and concepts (Pendleton, 1991).

Cognitive Methodologies--Systems designed to enhance the learning process by utilizing the results of educational, psychological and/or neuropsychiatric experiments, and studies (Brandt, 2000).

Holistic/Wholistic Learning--A whole brain approach to learning that challenges educators to create a space that is safe and challenging for the student to fully emerge (Sonnier, 1985).

Learning Strategies--Systems repeatedly used by students and/or instructors for receiving/assimilating, presenting/evaluating subject material (Ladd & Ruby, 1999).

Learning Styles--The composite of characteristic cognitive, affective, and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and responds to the learning environment (Keefe, 1979).

Metacognition--Self-reflection, development of the internal aspects of human nature (Al-Rawahi, 1996). How we know what we know. Thinking about thinking and about methods that distinguish effective thinking from ineffective thinking (Ornstein & Levine, 1997). Metacognition is the capacity to discriminate among feelings and draw upon them as a means to understand and guide oneself (Shope, 1983).

Multiple Intelligences--Human beings possess at least eight types of mental functioning or intelligence that work together in concert depending on the problem to be solved within limitations imposed by the individual. The following are intelligences: Musical/rhythmical, bodily/kinesthetic, logical/mathematical, verbal/linguistic, visual/spatial, interpersonal, intrapersonal and naturalist (Gardner, 1993).

Pedagogy--Art and science of educating children; teacher directed learning (Sutherland, 1995).

Organization of the Project

This project is divided into four chapters. Chapter One provides an introduction to the context of the problem, purpose of the project, and significance of the project, limitations and delimitations, and definitions of terms. Chapter Two consists of a review of the literature. Chapter Three outlines the population to be served and the project design. Chapter Four presents the conclusions and recommendations gleaned from the research. The project and references follow Chapter Four.

CHAPTER TWO

Review of the Literature

Introduction

A review of existing literature was plentiful. The subjects examined were associated with the need for developing a program stressing cognitive/metacognitive concepts and learning styles/multiple intelligence testing procedures, as it pertains to adult learners. The relevant literature reviewed was separated into three subsections. Subsection One consists of literature covering adult learners and the need to teach to their special needs. Subsection Two consists of literature covering learning styles and multiple intelligence as it pertains to Subsection One. Subsection Three consists of literature covering the need for a program that addresses Subsections One and Two.

Adult Learners

During the 20th Century, psychology, as a studied field, experienced demonstrable growth. The mind was explored to determine how it worked. Learned investigators coined terms like classical and operant conditioning to explain how behavior is influenced and changed to assimilate new information. How individuals learn blossomed into the

challenging field of cognitive research, which has an extensive history.

Famed Russian physiologist Ivan Pavlov (1849-1936) demonstrated classical conditioning in the 1890s with his salivating dog experiment. In America, psychologist and father of modern behaviorism John B. Watson (1878-1958) utilized operant conditioning in the 1920s with his "Little Albert" experiment in conditioned fear responses. What became apparent was that behavior could be changed depending upon the given stimulus used. Watson went so far as to suggest that given healthy infants and an environment where he controlled the stimuli, he could shape that child into any type of adult.

If conditioning was a simple form of learning, then a definition of learning was slowly being formulated. Educators began to define learning as a process. Beyond Freud's pre-existing pre-determined premise, educators began to study the differences as they related to external influences and the impact on learned vs. conditioned responses. Learning by definition began to encompass trained behaviors. Included in these studies were both positive and negative results, and the incorporation of external factors such as fear as it pertains to an individual's learning capabilities.

During this time the German gestalt psychologist Wolfgang Kohler published results of studies that would eventually answer the question: Can learning be taught? World War I found Kohler interned on Tenerife Island where he studied an ape he called Sultan. He placed Sultan in a cage with two separate wooden sticks that could be joined together and a bunch of bananas that were out of reach of one stick. Several unsuccessful attempts later, Sultan lost interest in the bananas. Playing with the sticks, he accidentally joined them together and immediately used them to knock down the bananas. Kohler believed that Sultan solved the problem using insight or a cognitive change involving recognition of a previously unseen relationship. Bandura's concept of modeling eventually grew from this connection. Bandura, of Stanford University, detected a strong connection between watching others perform an activity and the ability to replicate it. In a study published in 1963 (Bandura, Ross, & Ross), using a blow up Bobo doll, he discovered that when children watched adults kick, hit, and generally demonstrate aggressive behavior toward the doll, they replicated the behavior. He applied the term modeling to his results and the accepted meaning became "learning from watching others."

Cognitive concepts grew out of this fertile beginning. Jean Piaget (1896-1980), a Swiss scholar, developed his stage theory of cognitive development in children while trying to standardize Alfred Binets' I.Q. tests. Following this line of thinking, he implied that learning was a series of programmed responses. Piaget further implied that one could not move beyond a given stage until the concepts associated with that stage had been learned (Sonnier, 1985). Humanists Abraham Maslow (1908-1970) and Carl Rogers (1902-1987) believed humans make decisions that determine their destiny. Humans are inner directed and self-actualized. By this instinctual nature, humans experience the need to grow and improve. The stage is set to determine what is the best way to teach as well as to discover if differences in teaching methodologies are significant when the target student is an adult learner. Studies indicated that early learning experiences identify and mold the adult learner.

John Noren, the director of extended learning, administrative, and academic services at Park College used his 15 years experience in educating adults to suggest that the student population consists of adults returning to school for reasons ranging from promotional needs to

acquiring skills for that first time job. He also defined the adult learner as:

- Fully physically developed and engaged in adult social roles.
- Goal-oriented and preferring activity or learning-oriented instruction.
- Those seeking to achieve better jobs, promotions, increased pay, higher social status, and greater self-esteem by returning to school (Noren, 1997).

These points identify adult learners as strongly motivated, with a readiness to learn. They bring cognitive skills to the classroom like intelligence and memory. Their individual experiences are multifaceted and produce learning "triggers" that ease information into cognitive slots that most children have not yet developed. These triggers adapt well to Howard Gardner's concepts of multiple intelligences and his instructional platform is suited to adult learners. At the same time, various differences between ages, gender, race, ethnicity, socioeconomic status, and family background create a rich diversity among students and provide a fertile learning environment.

The success or failure of educating the adult population ultimately falls upon private industry and government. How well these students are facilitated is

destined to impact the economy. Annually private industry and governments spend upwards to \$210 billion and \$5 billion respectively educating, training, and retraining the under prepared adult population (Billington, 1988). In order for this monetary outlay to produce highly effective adult learning conditions it is necessary to define the best learning atmosphere. In a four-year study that investigated factors that best facilitate growth and development in adult learning environments, Billington suggested that adults bring with them seven unique sets of needs that must be met if learning is to take place.

1. Adult students need to feel safe and supported in a learning environment where their unique needs, abilities and life achievements are honored, acknowledged, and respected.
2. The above environment must foster intellectual freedom and encourage creativity and experimentation.
3. The faculty needs to treat adult students as peers, by listening, appreciating, and honoring their opinions.
4. Adult students are self-directed learners. They like to take responsibility for their own learning because they know what information is needed to function in their chosen profession.

5. The intellectual challenge must be paced to just exceed their present level of ability.
6. Adult students are active learners as opposed to passive listeners. They learn by doing instead of by listening to lectures.
7. Open lines of communication should be established for feedback between faculty and student so that changes can be made based on student input (Billington, 1988).

This study indicated that adult learners require a different set of classroom parameters with a different epistemological approach than what is commonly used to instruct children. Pedagogy is a presentational methodology that is teacher oriented. It aligns itself with the universally recognized British philosopher John Locke's metaphoric tabula rasa, or "children are a blank slate" and as such their knowledge is received from the teacher (Ornstein and Levine, 1997). Andragogy, the learning methods of adults, challenges the dominant educational presentation theory, which is lecture based, and looks towards a student oriented instructional platform better suited to the adult learner (Knowles, 1973).

Selected comparative articles discussing androgogical concepts included Whole Language and Adult Education, by Warren Lewis. This article explained how andragogic theories

were adapted to help young children read using the Whole Language concept. Whole Language does not follow pedagogical theory; (using word recognition, decoding or phonics) rather it parallels the andragogic methods of presenting reading in complete story form, allowing the student to engage and collaborate as co-learners (Lewis, 1997). This move toward a more student-oriented platform lends credence to the assumption that adult learning concepts are good learning concepts.

Supporting the premise that adult learners are unique and require a different approach to learning is Malcolm Knowles book, The Adult Learner: A Neglected Species (1973). Knowles, the recognized father of adult learning concepts and the pioneering trailblazer of effective adult education programs, expanded upon his 1970 theories of andragogy vs. pedagogy. He defined the adult learner's needs and explained how the pedagogically based courses found in most educational facilities were not meeting five issues that had to be addressed if returning to school was to be efficacious.

1. Adult learners need to know the relevance of the information being taught.
2. They need to see how they can apply it to their life goals.

3. Adult learners need to be able to relate personal/professional experiences to the topic being taught.
4. Adult learners will not learn until they are ready or motivated.
5. These students will need assistance to overcome damaging learning experiences encountered as children (Knowles, 1973).

Knowles foresaw the trend that exists today. More adults are entering or returning to the educational arena. From this he designed an approach that could be implemented by vocational institutions to help meet the demands of returning adult learners by facilitating their unique needs (Knowles, 1973). In general, an adult learner desires a different approach to learning that is unique. They select learning environments that set them apart from K-12 learners. In short, they are not children. They have made a voluntary choice to re-enter the scholastic playing field. They have a goal that they want to achieve and they bring a wealth of life experience to the classroom that should be both incorporated and utilized in teaching methodologies.

Though research spanning a 30-year period agrees that the adult learner is unique in many areas, Stephen Brookfield does not agree. He critically examined four major

research areas considered unique and exclusive to adult learners:

- Self-directed learning.
- Critical reflection.
- Experiential learning.
- Learning to learn.

Brookfield believed that meta-analysis of the research and theory conducted in Africa, Australia, Canada, and America raised serious concerns and posed this question: Is adult learning unique or is it a collection of serendipitous intersections? (Brookfield, 1995).

Brookfield's first concern was the research available substantiating self-directed learning studies. Brookfield discovered that the sample used to conduct these studies was primarily middle class subjects drawn from emancipatory adult education and reflected patriarchal values not relevant when considering both genders (Brookfield, 1995). He felt that a wider sociopolitical audience screened for the above variables would challenge the results.

Brookfield's second concern was that critical reflection is domain-specific or contextual. He felt the disparity between the student's perception and interpretation of cultural and personal issues could not be

explained when the research emphasis was placed on educators. Brookfield suggested that educators need a clear and precise language to describe the process of critical reflection. This language should not depend upon psychoanalytical and critical theory terminology (Brookfield, 1995). Using language as a common ground to describe results is an excellent goal, but it has little bearing on whether only adults experience critical reflection. It would appear that maturity is the dominant indicator and maturity is not always age related.

Brookfield's third concern is experiential learning. By definition it is a cornerstone of adult learning. It is central to andragogy and the belief that adult teaching should be grounded in the experiences of adults. According to Brookfield, experiential reliance contains the following two discernable pitfalls: First, experience is not objectively neutral; culture, language, and categories of analysis shape it; and secondly, there is no causality between the quantity (duration) of experience and its richness or intensity. The degree to which adults learn from their experiences is undefined (Brookfield, 1995). Brookfield eloquently drew a picture of learning as a contextual overlay of cultural and social influences over time. This is undeniably true. Who a person is, defines how

they interpret experiences. These interpretations refine personality. Whether experiential learning is uniquely adult is suspect. Experiences gathered over time can be said to begin in the womb.

Brookfield's fourth concern involved learning to learn or meta-cognition. This is the ability to acquire understanding of the habitual ways adults learn. According to Brookfield learning is a lifelong endeavor and placing emphasis on college students does not acknowledge adult learning diversity. Without considering the different roads adults take in their pursuit of knowledge, research data will be incomplete. Nor does the academic environment have a "corner" on the learning process (Brookfield, 1995). Brookfield recommended that experiments needed to be designed to study meta-cognition outside of the school environment. Although it would be difficult to control the many variables, this type of experiment would consider whether different social environments negate the adult learner aspect of the equation.

Brookfield's recurring theme is socially inspired. Humans are social animals and as such affected by societal demands and stratification. Past research on adult learners has not addressed social aspects of the schema. His cry in the wilderness should not go unheeded. It would be wise for

future studies and experiments to reflect the effects of societal influences.

Considering Brookfield's concerns, the bulk of the previously cited research still points to the fact that adults have specific motivations that drive them back to school. Once there, they have special learning expectations that require careful attention. Studies indicated that the adult learner is unique and as such should be educated in an environment that reflects that uniqueness. If educational methodologies do not address these needs, adult learners will continue to be under prepared. This in turn will make them unsuitable for employment or advancement in the highly competitive service industries that society needs to power the economy.

Multiple Intelligence and Learning Styles

The brain has been poked, prodded, sliced, imaged, and electronically monitored. It has been considered to be the home of personality, intelligence, and sometimes the soul. It has been likened to a complex computer in its ability to take in and manipulate information. Yet the confusing way it tags experiences, scattering them throughout the brain for later retrieval, is almost mystical. This informational amalgam magically comes together to produce cognitive processes that allow humans to learn, dream, and create.

Contextual information is associative. It depends upon what activators or stimulators are used. Since humans relate to their environment through their senses, these same senses can be stimulated to activate information storage and retrieval. Modern medical science has developed instruments that map the brain, providing marginal topographic information that designates regional processing areas as linguistic, spatial, artistic, and mathematical (Guild & Chock-Eng, 1998). Cognitive methodologies have attempted to apply this information to how a person learns.

It is believed that the left-brain is responsible for logical sequencing. Logical conclusions are attained using a step-by-step approach. Language, or putting sounds together to make words and sentences, also finds its domain in the left-brain. The right-brain handles visual information processing. How something looks depends upon form and space. Music or sounds, unrelated to language, reside in the right-brain. It is also thought that the right-brain may be the intuitive side that "sees the big picture" (Kagan, Havemann, Segal, 1984).

The neuroscientific properties of the brain and how they work are only one facet of the cognitive process; the brain is not a black box that exists separate from the mind. It cannot exist in isolation (Gardner, 1993). Individuals

develop mental representations or ideas, images, and languages in their mind. This cognitive process can be measured and influenced by educators. In Howard Gardner's book, Multiple Intelligences The Theory In Practice, he suggested that individuals have different learning patterns or intelligences. These relate directly to their ability to take in and process information. These intelligences must have the following attributes:

- A biological proclivity (part of the human from birth).
- They must be valued in one or more cultural settings (during Socrates' time, oration was valued, but during Confucius' time values shifted and emphasis was placed on writing).
- They are identifiable by a core set of operations (those that could be tested and verified).
- They must be susceptible to encoding (Gardner, 1993).

Gardner felt there were at least eight distinct intelligences that met the above requirements.

1. Musical--The ability to produce and appreciate rhythm, pitch, and timbre; an appreciation of musical expression and forms; child prodigies indicate a biological link.

2. Bodily/Kinesthetic--Body wisdom; the ability to manipulate objects; ideas and feelings integrated with body movements.
3. Logical/Mathematical--Reasoning capabilities using numerical patterns and number chains; abstract or real functions.
4. Linguistic--Sensitivity to words, sounds, cadence, and inflection; uses language to think, persuade, and teach.
5. Visual/Spatial--Transforming thoughts into pictures; accurately reproduce spatial concepts.
6. Interpersonal--Responding correctly to the moods, desires, and motivations of others; ability to anticipate their needs.
7. Intrapersonal--Meta-cognitive ability to get inside yourself; analyze your own feelings, emotions, and behavior patterns.
8. Naturalist--Ability to discriminate among and value phenomena of the natural world (ASCD, 2000).

If multiple intelligences are information portals allowing entrance to the brain's storage and retrieval mechanisms the Gardner's (1993) premise is true. Cultural roles use multiple intelligences. No activity is achieved via a single intelligence. The question can then be posed:

When data is retrieved using multiple traces, how is it combined? Barbara Doshier at University of Irvine and Glenda Rosedale of Columbia University did a study on Configural Multicue Priming that sought to answer that question. The study was designed around two assumptions. 1) Realistically, humans would seldom select a single cue to initiate memory retrieval, and 2) Information retrieval is more successful when the cues are cogent and consistent (Doshier & Rosedale, 1997).

The study utilized three mechanisms to test information retrieval success. The holistic mechanism is designed to use two consistent cues that are related to search, locate, and retrieve information. This multiplicative mechanism restricts retrieval to only that information related to both cues. Meanwhile, an independent mechanism uses two totally unrelated cues for information retrieval. The research study indicated that the primary mechanism for cueing was holistic. This supports Gardner's statement above and paves the way to examine multiple learning styles.

Students develop a method that allows them to take in, store, process, internalize, and eventually remember scholarly facts (Shaughnessy, 1998). This method is influenced by conscious or unconscious choices the student makes regarding environment, processing preferences, and

personality type. As they get older, their methods may go through an adjustment. Rita and Kenneth Dunn identified these different cognitive methods as learning styles (Dunn & Dunn, 1972).

In their book, Practical Approaches to Individualizing Instruction, Dunn and Dunn debunked several teaching fallacies. 1) Children learn by listening. 2) A quiet school is a good school. 3) Education happens between 8:30am and 3:00pm (Dunn & Dunn, 1975). This book is a how-to guide designed to personalize teaching styles by identifying and using learning styles. In the Dunn and Dunn model, learning preferences are grounded in the following:

1. Learning preference or style combines personal characteristics that are both biological and developmental. Styles matched to educational environments and methods may benefit some students and not others.
2. Most students prefer one style to another and these preferences differ from student to student.
3. The effect of accommodating individual learning styles can be measured.
4. Stronger learning preferences require educator tactics that are more compatible.

5. Matching a student's learning style preference with an appropriate educational intervention expands scholastic potential creating healthier attitudes toward learning.
6. Students whose learning styles are matched by educational methods that meet student needs score statistically higher on tests than students not matched.
7. Most students chose their strongest learning style when presented with novel or challenging subject matter.
8. Students with unsuccessful learning experiences require an educational environment conducive to, and designed to meet, their preferred learning style.
9. Most educators can be taught to adapt their presentational method to utilize learning styles (Dunn, et al. 1995).

Adapting the Dunn model to adult learners provides a multidimensional construct that positively impacts their learning style. According to meta-analysis of the Dunn and Dunn model on data collected from 1980 through 1990, (on children) accommodated students could be expected to achieve 75% higher standard deviation than the group identified as unaccommodated students (Dunn, et al. 1995). If this level of improvement can be attained at the K-12 level, then bringing learning style methodologies into the realm of

post-secondary education should equate to similar improvements for the adult learner.

The Myers-Briggs Type Indicator designates personality type based upon a classification model explored by Carl Jung. People are best understood in terms described as extroversion/introversion, sensation/intuition, and objective/subjective. The Myers-Briggs Type Indicator sets up four basic scales and two types within each scale. Using this indicator personality divides into sixteen types with each having a different orientation toward the world (Myers, 1978). Individuals' orientation subsequently affects their ability to learn and work. It can be conferred that any instructor incorporating the Myers-Briggs model into educational settings would attain a higher success rate for students on outcomes of research, verifiable tests, and studies. Utilizing the Myers-Briggs test and the answers provided to a series of questions, personality can be judged in the following four areas:

- *How does a person become energized?* If ideas, emotions or personal impressions motivate, then energy is determined to be coming from within. Introversion (I) would characterize that person. If people, activities, or things motivate, then energy is determined to be

coming from outside. That person would be characterized as "E" for Extroversion.

- *How does a person attend or take in information?* If the five senses are preferred for receiving and processing information, "S" would characterize for senses. It could also be said that they need good evidence before taking action. If subliminal sensory stimuli (intuition) are the preferred method for receiving and processing information it would be characterized by "N" for Intuition. This internal and possibly unconscious mechanism could also be said to follow hunches against evidence.
- *How does a person decide?* If decision-making is logical, impersonal, and objective, then it would be characterized as "T" for Thinking. If decision-making uses personal feelings, desires, or values, then it would be characterized as "F" for Feeling. This classification obviously has shades of gray because most people use a combination when making certain decisions.
- *How does a person live?* This is considered the life-style category. A preference for living a planned and organized life would be characterize as "J" for

Judgment. A preference for spontaneity and flexibility would characterize as "P" for Perception (Myers, 1995).

Personality tests, however, are only as good as the truthfulness of the answers. Awareness of personal traits varies with maturity and life experience. Therefore, results tend to be less concrete than the Myers-Briggs Type Indicator might suggest. This is still a good instrument for determining personality traits. When used in conjunction with other measurement instruments, it can provide instructors with a window to view cognitive preferences and tailor presentations and learning styles to achieve improved academic performance (Carroll, 1998).

In light of the accumulated data, it becomes apparent that an educator can produce a more stimulating scholastic experience by simply adopting presentational styles that accommodate various learning and personality preferences. 21st Century private post-secondary proprietary vocational educators must incorporate physiological, psychological and social knowledge into their presentations if they are going to positively impact the cognitive and emotional orientation of the adult student. Educational methodology must be willing to embrace new epistemological paradigms. Our future economy depends on a steady stream of educationally prepared adults. Adult students look to educators for the knowledge

they need to reach their full potential. Proprietary vocational educators cannot meet that challenge unless they are taught how to accommodate various cognitive preferences.

Program Needs and Design

Educators that believe in brain-based education and utilizing learning styles along with multiple intelligences, bring to the classroom an attitude that focuses on how students learn. By addressing the unique properties of each student, a comprehensive approach to teaching can be established (Guild & Chock-Eng, 1998). Although each student's learning style can be ascertained by utilizing the Learning Styles Inventory, students are only part of the learning equation. Educational effectiveness depends on the quality and commitment of the instructors involved on a daily basis (Gardner, 1993). Developing a program based on learning styles requires instructors to recognize not only their students' learning style, but also their own teaching style and how it contributes to classroom dynamics (Miglietti & Strange, 1998). Setting standards, delineating credible curricula, and creating supportive environments are important components for building an education designed to promote an enhanced learning atmosphere.

Diagnosing a student's preferred learning style can be accomplished by administering learning style instruments.

designed either in oral, taped, or written formats. One commonly used assessment instrument is the questionnaire. By keeping the questionnaires in a simple true and false format this instrument is easy for students to understand and quickly complete (Dunn & Dunn, 1975).

Assessing an instructor's teaching style provides knowledge that when incorporated, allow instructors to edit their presentations to match student-learning style. The Principles of Adult Learning Scale (PALS), developed by Conti in 1979, is a 44-item, objectively scored self-rating instrument. Scores above 145 on the PALS reflect a learner-centered approach or a collaborative teacher learner transaction. Scores below 145 suggest a more teacher-centered approach where authority is primarily the teacher's domain (Miglietti & Strange, 1998).

The PALS measures the following seven factors related to instructor teaching style and the strength of the instructor to support this style.

1. Learner-centered activities (60 points maximum). This reflects the extent the instructor supports student collaboration by practicing behaviors that encourage students to take responsibility for their own learning
2. Personalizing instruction (45 points maximum). This area reflects the extent each instructor employs

several techniques that personalize learning to meet student needs. Emphasis is placed on cooperation instead of competition.

3. Relating to experience (30 points maximum). This area reflects how well the instructor uses learning activities that emphasize prior student experiences to makes the subject matter relevant.
4. Assessing student needs (20 points maximum). This area assesses how well the instructor utilizes orientation, individual conferences, and informal counseling to determine what each student wants or needs to know.
5. Climate building (20 points maximum). This area measures how well an instructor sets a friendly and favorable classroom environment that includes dialogue and student interaction. Students are encouraged to take risks because errors are considered part of the learning process.
6. Participation in the learning process (20 points maximum). This area reflects the extent to which instructors allow students to participate in decision making regarding class topics and problems they want to solve.
7. Flexibility for personal development (25 points maximum). This area reflects whether instructors view

themselves as a facilitator or disseminator of knowledge. It demonstrates whether the instructor maintains a flexible classroom environment/curriculum by adjusting to meet student needs (Conti, 1985).

Students were first administered the Adult Classroom Environment Scale (ACES) developed by Darkenwald and Valentine in 1986. This is the only scale designed to measure adult students' perceptions of the classroom environment. It examines the following six structural aspects identified by Langenbach and Aagaard in 1990.

1. Teacher activities indicate the extent students desire their instructor to be encouraging, sensitive, respectful, clear, and organized in class, and to know what is expected or required of them to meet assignment deadlines.
2. Student affiliation assesses the belief that a significant part of the ideal classroom environment is to be able to work well together with and learn from others in the class, disagree with one another, and form friendships with classmates.
3. Student prerogatives measure how much students want to learn at their own pace, while determining class topics, objectives, requirements, and what they should learn.

4. Teacher domination points to whether students want classroom learning to be the same for everyone, with the instructor setting the pace, discussions, assignments without deviating from planned topics.

5. Student attitudes indicate student expectations for class enjoyment, expected boredom, and relevancy to their lives.

6. Students believe that topics unrelated to class should not be discussed (Langenbach and Aagaard, 1990).

Students were subsequently administered a second instrument the Adaptive Style Inventory (ASI) developed by Kolb in 1984. This is a modified form of the Learning Style Inventory (LSI) also developed by Kolb that measures the student's proclivity for each of the four learning process styles.

- Concrete experience (CE).
- Reflective observation (RO).
- Abstract conceptualization (AC).
- Active experimentation (AE).

This assesses which of the following four-adaptive/learning types each student represents.

1. Diverger. Involves the use of concrete experience and reflective observation.

2. Accommodator. Entails the use of concrete experience and active experimentation.
3. Converger. Uses abstract conceptualization and active experimentation.
4. Assimilator. Requires the use of abstract conceptualization and reflective observation (Kolb, 1984).

Utilizing the above instruments, Cynthia L. Miglietti and C. Carney Strange conducted a survey of 1,500 students enrolled in a two-year branch of a four-year regional Midwestern institution. Ten instructors teaching at the same institution were also requested to participate in this study. It was designed to examine how learning styles, teaching styles, and classroom environments contribute to academic achievement and satisfaction of adult learners. Two fundamental questions needed to be answered by this study:

- Is there a relationship between the ages of students, their classroom expectations, and their preferred learning style?
- Are academic achievement levels, feelings of accomplishment, and satisfaction with the course a function of exchanges between teaching styles, classroom environments and learning styles?

The report's findings suggest that age had no significant effects on grades or course outcomes when weighed against instructor teaching style. The study also indicated that a learner-centered approach, which emphasized learner-centered activities and personalized instruction geared to individual development, produced a greater sense of accomplishment while creating a positive educational experience. Some of the data implied a challenge to commonly held assumptions about the adult learner, but only because the sample was primarily taken from mathematics classes (Miglietti & Strange, 1998). The accepted didactic platform for presentations could skew the results.

In a study published by the Journal of Industrial Teacher Education (1998), Jerry Spoon and John Schell also utilized the PALS instrument. Their research objectives were to:

1. Describe the student's perceived learning style and the instructor's perceived teaching style in adult basic skills classes.
2. Determine how selected demographic variables (age, ethnicity, and gender) influence learning style and interactions.
3. Describe the levels of congruence and incongruence between teaching and learning styles of participants.

4. Compare participants' achievement levels based on whether their experienced instruction was congruent or incongruent with their perceived learning style (Spoon & Schell, 1998).

In regards to the effects of teaching style on course outcomes, the data from this study appear to be consistent with previous research in this area. Regardless of student age, the efficacy of a learner-centered approach to teaching proved substantial for a significant proportion of respondents. Spoon and Schell's research highlighted the need for congruency in teaching and student learning styles. The implication was that teachers needed to be educated on the importance of developing and utilizing multiple teaching styles that can be matched to student needs. This creates a congruency that benefits the student by making additional levels of vocational achievement more attainable (Spoon & Schell, 1998). It would suggest proprietary vocational instructors might need additional assistance developing skills in the areas of teaching style and student learning styles. Enhancing the level of congruence between the two should improve the success rate of adult learners, which will subsequently produce the employable adults needed for fast paced service industries.

Summary

The literature important to this project was presented in Chapter Two and it provided substantiation for the following three premises. First, adult learners are different from children, with distinct needs, and it is important to teach to those needs if they are going to leave the scholastic arena with the skills needed by industry. Second, knowledge and implementation of learning styles and multiple intelligences can positively affect educational outcomes in a significant portion of the adult learning population. Third, private post-secondary proprietary vocational instructors need a program that teaches them to identify student-learning styles and their own teaching styles so they can be used congruently to improve student outcomes.

The literature synthesizes the work of noted researchers to support these premises. The information presented in Chapter Two suggests there is a need for developing a program designed to teach a combination of cognitive and metacognitive concepts to private post-secondary proprietary vocational instructors. This will provide them with tools to integrate this new paradigm into their curricula, thus allowing them to assist adult learners

to utilize their best learning styles when taking in and assimilating information.

CHAPTER THREE

Methodology

Introduction

Chapter Three details the steps used in developing the project. Specifically, the research on adult learners was identified through various sources as listed in the reference section. Questions were formulated with regard to how well educators in today's private post-secondary proprietary vocational system were meeting the needs of these adult learners. Existing data, as well as theory, was compiled and studied. Ultimately, it was discovered that today's proprietary vocational instructors are falling woefully short of meeting many vital needs of adult learners. Results of this research led to the ultimate question that proved to be the basis of this project: What could be done to create a program based on "educating the educator" of the adult learner?

Purpose of the project

Consensus found among the studies of learning styles can be stated briefly: Adults learn differently from children. Teaching to the specific needs and learning styles of adult learners would measurably improve the outcome of their educational experiences, and ultimately their successes. Through the identification and matching of

teaching styles with student learning styles, there can be a synergistic effect of increasing students' cognitive potential, as well as instructors' effectiveness.

Population Served

This program is designed to help private post-secondary proprietary vocational educators reach the adult learner population entering or returning to the academic arena. The instructors that will be affected by this program range in age from thirty to over sixty, whose primarily motivational impetus is to secure employment while passing their expertise in a specific employment field to a selected vocational community. Private post-secondary proprietary vocational institutions are the projected focus for this instructor profile.

The targeted audience comes from various service industries. Although these educators' background may include some college, they are primarily hired for their specific job-skills and work-related experience, not for their teaching prowess. They have little or no formal education in teaching, classroom dynamics, and cognitive methodologies. This program is designed to assist vocational instructors in acquiring cognitive assessment skills to enhance their effectiveness in the vocational arena.

Program Development

The content of this course of study has been developed after researching cognitive methodologies and their application in several studies. The primary objectives to be measured are:

- The ability to accurately administer and score instruments designed to measure learning style, teaching style, and personality as it pertains to the learning environment.
- The ability to develop congruence between personal teaching style and student learning style.
- The ability to tailor presentations, demonstrations, exercises, and testing procedures to emphasize student-learning strengths.

Program Resources and Content Validation

Program and notebook resources utilized much of the theory presented in the body of this project. Additional studies are necessary. They would include, but not be limited to, updating and identifying the current needs of private post-secondary proprietary vocational educators. This would require preliminary formulation of questionnaires to be distributed to the educators and their evaluators, as well as personal interviews of both the educators and their

evaluators. Content validation would be based on a series of steps over a period of time. Upon completion of a pilot program, initial content validation would be sought from researchers with experience in program development as it pertains this specialized educational arena. Pilot programs for instructor training, designed to incorporate a cross section of areas, would then be designed and set into motion. Immediately after a series of training seminars, input from those involved would be obtained and evaluated through a questionnaire. Careful follow-up would then be scheduled in increments to include the educators, their evaluators, and the student body.

Program Design

This program was designed with a learner-focused agenda. It includes short interactive projects that lead the private post-secondary proprietary vocational instructor to the realization of the voluntary adult learner's different and special educational needs. It casts the instructor into both the learner and teacher roles, which is key to learning how to model by "walking the talk" (Williamson, 1998). Having each instructor take and score the various learning, teaching, and personality tests, it is hoped would develop an awareness of their differences and how to effectively

incorporate style and personality traits into their presentations.

The program design follows a seminar platform presented over three eight-hour days at each corporate campus. This would place instructors in a comfortable environment where they are more likely to interface with other instructors. The willingness to interact and experiment with various cognitive methodologies is important to the success of this program. It is believed that once instructors see the effectiveness of applying the concepts presented, they might incorporate them into their own teaching style. This should result in improved classroom dynamics, student learning gains, satisfaction and consequently lowering student attrition.

Certificates of completion are to be issued to all instructors along with appropriate CEUs (continuing education units) or CMEs (continuing medical education). Instructors attending can be required by their corporation or campus to meet performance objectives as outlined by their individual by-laws. Notebooks containing pertinent information related to cognitive modalities and test materials are included.

Summary

Existing data and theory supports the postulate that today's private post-secondary proprietary vocational instructors do not meet the needs of the voluntary adult learner. The reason for this shortcoming is simple. Proprietary instructors are hired for their job-skills and work-related expertise, not for their teaching prowess. They are thrown into groups of students without knowledge of educational tactics, classroom dynamics, cognitive methodologies, or adult learner needs. They learn by trial and error. Their learning curve tends to be short resulting from a lack of instructional support from the campus or the parent company. Teacher turnover is high and many of those that do stay revert back to the teaching style used unsuccessfully on them when they were children.

The proposed program seeks to end this cycle by educating the educator in the specific needs of the voluntary adult learner. This program teaches how to successfully integrate learning and teaching styles with personality traits to create a synergistic effect that unlocks the student's cognitive potential while improving instructor effectiveness. This learner-focused three-day seminar is an interactive platform designed to meet primary objectives that develop the following competencies:

- Administering and scoring measuring instruments.
- Developing congruence between presentation and learning styles.
- Tailoring classroom and project objectives to emphasize learning strengths.

Achieving the above competencies results in certificates of completion and acquisition of CEUs and/or CMEs.

CHAPTER FOUR

Conclusions and Recommendations

Introduction

Chapter Four is a presentation of the conclusions generated by the completion of this project. These conclusions are based on the questions posed in Chapter Two, with regard to the special needs of adult learners, the efficacy of utilizing learning styles, and the need for private post-secondary proprietary vocational educators to be taught cognitive modalities. Further, the recommendations extracted and presented from this project primarily indicate the necessity for additional research and evaluation to validate the findings, and to explore broader applications. The Chapter concludes with a summary that revisits the original premise, to ascertain that it was adequately substantiated, that the conclusions logically follow the identified research, and that the recommendations are reasonable.

Conclusions

The conclusions extracted from this project follow.

1. Currently, private post-secondary proprietary vocational educators of adult learners are:
 - A. Failing to meet the needs of their students.
 - B. Not incorporating learning styles in presentations.

- C. Continuing to teach as they were taught.
 - D. Selected based on career expertise.
2. Private post-secondary proprietary vocational educators need to be trained in both cognitive and metacognitive concepts as they pertain to instructional outcomes.
 3. Private post-secondary proprietary vocational educators need to be trained in the identification and utilization of the theory of multiple intelligences.
 4. Both the impact and the outcome of training for the adult learner is linked to the skills of the individual educator and the learning environment.
 5. Adults entering into today's educational arena have individualized needs that must be met by their educators.

Recommendations

The recommendations resulting from this project follow.

1. Further research and evaluation are needed to verify the findings of this project.
2. Further research and evaluation are needed to address the changing needs of today's adult learner.
3. All vocational educators should receive instructor training that includes cognitive and metacognitive principles as they pertain to education and learning models.

4. Further research and evaluation are needed to ascertain whether this project has Internet applications.
5. Further research and evaluation are needed to determine if this program should be translated and offered on a national and international basis.

Summary

The articles and books used during the research phase support the premise upon which this project was based. Private post-secondary proprietary vocational instructors do not meet the needs of today's adult learner. This chapter concluded that the primary reason is that these instructors lack the knowledge in the cognitive and metacognitive concepts needed to give them the educational tools to adapt their teaching styles to the student's learning style. It was also concluded that providing proprietary vocational educators with the appropriate training in learning models and instructional techniques would bridge this knowledge gap. The recommendations indicated further research and evaluation should be scheduled to verify the results gleaned from this project. Finally, if the results are judged to be valid then broader applications should be considered. This would necessitate further research and evaluation into appropriate areas.

A careful study of research based on adult learners, as well as learning and teaching styles, indicates proprietary vocational educators need to embrace a paradigm shift away from the traditional way they present information. They need to incorporate cognitive and instructional methodologies based on style models into their presentations. A program stressing this new paradigm might provide educators with tools calculated to improve their ability to impart knowledge to their students. These voluntary adult learners may then be better prepared for employment and advancement in the highly competitive industries that fuel our economy.

Appendix A
Seminar Proposal

that capitalize upon their new knowledge of cognition, metacognition, and learning/presentation styles to improve the learning dynamics in their classrooms.

This seminar is to be presented in a hands-on-format, which means the attendees will be participating in learning exercises. In essence, they will become students. Through the process of directed discovery attendees realize their own learning styles, personality type, and cognitive processes as they pertain to assimilating scholastic information. Using this method each attendee will develop an appreciation of the voluntary adult learner's special educational needs. This appreciation should create the desire to implement their new skills into their presentations.

(Certificates of competency will be issued at the completion of this seminar.)

PROGRAM OUTLINE

- I. Introduction **1-hour**
 - A. Philosophy
 - B. Mission
 - 1. Purpose
 - 2. Open Forum Discussion
- II. Historical Background to Learning **1-hour**
 - A. Psychologists
 - B. Educators
 - C. Students
 - D. Open Forum Discussion
- III. Cognitive/Metacognitive Theories **4-hour**
 - A. Brain Based
 - 1. Theory
 - 2. Activity
 - B. How Brain/Mind Functions
 - 1. Theory
 - 2. Activity
 - C. Memory Tricks/Fallacies
 - 1. Theory
 - 2. Activity
 - D. Open Forum Discussion
- IV. Learning Models **2-hour**
 - A. Gardner
 - B. Dunn
 - C. Myers/Briggs
 - D. Open Forum Discussion
- V. Measurement Instruments **4-hour**
 - A. Personality Type
 - 1. Background
 - 2. Take Test
 - 3. Grade Test
 - 4. Application
 - B. Learning Styles
 - 1. Background
 - 2. Take Test
 - 3. Grade Test
 - 4. Application

- C. Presentation Style
 - 1. Background
 - 2. Take Test
 - 3. Grade Test
 - 4. Application
- D. Open Forum Discussion
- VI. Style Congruency **4-hour**
 - A. Teacher vs. Student Oriented Learning
 - B. Activity
 - C. Classroom Dynamics
 - D. Activity
 - E. Open Forum Discussion
- VII. Designing Activities **4-hour**
 - A. Group Learning
 - 1. Designing Activity
 - 2. Present Activity
 - 3. Competency Rate (grading)
 - 4. Trouble Shooting
 - B. Directed Discovery vs. Lecture
 - 1. Designing Activity
 - 2. Present Activity
 - 3. Competency Rate (grading)
 - 4. Trouble Shooting
 - C. Open Forum Discussion
- VIII. Walking the Talk **4-hour**
 - A. 5-minute Presentations
 - B. 5-minute Activities
 - C. Certificate of Competency

SEGMENT DESCRIPTIONS

Introduction

1-hour

The introduction presents highlights of the various teaching philosophies. It provides information on the mission of education in the vocational arena. It offers a unified purpose for the instructor in the classroom. This segment ends with an open forum discussion of the material and its implications.

Historical Background to Learning

1-hour

The Historical Background to Learning charts the evolution of learning through the various specialties. Psychologists and their contributions will be highlighted. Educators that had an impact on the educational trends of their times will be discussed. The historic role of the student and how it has changed over time to adapt to the needs of government will be contrasted with current volunteer adult learners entering into vocational contracts. This segment ends with an open forum discussion of the material and its implications.

Cognitive/Metacognitive Theories

4-hour

Cognitive/Metacognitive Theories begin with the theory of brain-based learning. A group participation activity designed to emphasize brain based theory will involve each attendee to illustrate basic points of brain based learning. The brain/mind functions activity is designed to illustrate how the brain/mind works when presented with new information or problems to solve. Memory tricks/fallacies presents information on how to improve memory while debunking activities that have little or no effect on memory. The memory activity consists of several games designed to illustrate how to improve memory. This segment ends with an open forum discussion of the material and its implications.

Learning Models**2-hour**

Learning Models discusses the learning model theories of Gardner, Dunn, and Myers/Briggs. Primary concentration will be placed on those aspects related to the voluntary adult learner. This segment ends with an open forum discussion of the material and its implications.

Measurement Instruments**4-hour**

The background and theory behind various measurement instruments will be presented. Primary focus will be placed on personality type, learning styles, and presentation styles. Attendees take the various tests to find their preferred type and styles. Activities designed to stress one type/style will involve the attendee into the learning environment from the student's point of view. Looking at learning from that perspective will engage attendees to see the efficacy of applying measurement instruments and their outcomes to their students. It ends with an open forum discussion of the material and its implications.

Styles Congruency**4-hour**

Styles Congruency discusses the points related to teacher-oriented instruction and contrasts them with student-oriented instruction. It brings the concepts of classroom dynamics into the learning equation. The activities are designed to illustrate the impact congruency has on the learning environment. It ends with an open forum discussion of the material and its implications.

Designing Activities**4-hour**

Designing Activities capitalizes on the previous segments and their activities as a basis for improving student performance through the use of interactive learning. Directed discovery and small

group learning activities are contrasted with the standard lecture format. Attendees participate in an interactive learning environment through the activities of this segment. Attendees will be shown how to design, present, grade competency, and trouble shoot activities. It ends with an open forum discussion of the material and its implications.

Walking the Talk

4-hour

Walking the Talk consists of fun and games designed and presented by each attendee. These 5-minute presentations and activities should utilize aspects of the previous segments. This is each attendee's declaration that the information provided by this seminar has been assimilated, processed, and applied. It ends with an open forum discussion of the material and its implications. Certificates of competency will be issued at the completion of this segment.

Appendix B

Attendee Notebook List

ATTENDEE NOTEBOOK

TABLE OF CONTENTS

- List of page numbers for each area.

HOW TO USE THIS NOTEBOOK

- Simple directions on how this notebook can be used.
- Suggestions for duplicating.
- Brief description of each area.

SYNOPSIS OF SEGMENT INFORMATION

- Each segment of the seminar will be synopsized.
- Important content will be bulleted.
- Suggestions for incorporation into classroom.

EXAMPLES OF MEASUREMENT INSTRUMENTS

- Every measurement instrument used in seminar.
- Explanations as to when each should be used.
- Trouble shooting student questions.

KEYS TO MEASUREMENT INSTRUMENTS

- Evaluations for each measurement instrument.
- Directions for how to use the keys.
- Suggestions for rating student performance.

EXPLANATION OF RESULTS OF MEASUREMENT INSTRUMENTS

- Explanations for each measurement evaluation.
- What to tell the student.
- Comparison and combining results.

SUGGESTIONS ON HOW TO APPLY MEASUREMENT INFORMATION

- Classroom integration of teaching styles.
- Group vs. individual activities.
- Expanding your presentation.

SAMPLE ACTIVITIES

- Games.
- Projects.
- Presentations.

NOTES

- Area for attendee to keep personal notes.
- Good area to keep track of personal evaluations.

REFERENCES

- Where the information for this seminar was found.
- On-line sites for further study.

Appendix C

Segment Information Synopsis

SYNOPSIS OF SEGMENT INFORMATION

This index presents brief examples of information that appears in the Attendee Notebook in the section titled Synopsis of Segment Information. Each synopsis covers important aspects addressed in the seminar. The synopses are prefaced by a topic outline and end with a subject related reading list.

Introduction

The Introduction presents highlights of the various teaching philosophies from the Socratic to the Montessori methods. It provides information on the mission of education in the vocational arena and how it has evolved over the centuries. It offers a unified purpose for the instructor in the classroom as it pertains to educational trends and issues. This segment ends with an open forum discussion of the material and its implications.

Historical Background to Learning

The Historical Background to Learning charts the evolution of learning through the various specialties. It highlights contributions from noted psychologists such as Jung, Skinner, and Roger. Educators that impacted the educational trends of their times are discussed. The historic role of students has changed over time to adapt to the needs of government. These changes are contrasted with current volunteer adult learners entering into vocational contracts. This segment ends with an open forum discussion of the material and its implications.

Cognitive/Metacognitive Theories

Cognitive/Metacognitive Theories begin with the theory of brain-based learning. A group participation activity designed to emphasize brain-based theory involves each attendee and illustrates basic points of brain-based learning. The brain/mind functions activity is designed to illustrate how the brain/mind works when presented with new information or problems to solve. Memory tricks/fallacies presents information on how to improve memory while debunking activities that have little or no effect on memory. The memory activity consists of several games designed to illustrate how to improve memory. It ends with an open forum discussion of the material and its implications.

Learning Models

Learning Models discusses the learning model theories of Gardner, Dunn, and Myers/Briggs. Primary concentration is placed on those aspects related to the voluntary adult learner. It ends with an open forum discussion of the material and its implications.

Measurement Instruments

The background and theory behind various measurement instruments is presented. Primary focus is placed on personality type, learning styles, and presentation styles. Attendees take the various tests to find their preferred type and styles. Activities designed to stress one type/style involve the attendee into the learning environment from the student's point of view. Looking at learning from that perspective engages attendees to see the efficacy of applying measurement

instruments and their outcomes to their students. It ends with an open forum discussion of the material and its implications.

Styles Congruency

Styles Congruency discusses the points related to teacher-oriented instruction and contrasts them with student-oriented instruction. It brings the concepts of classroom dynamics into the learning equation. The activities are designed to illustrate the impact congruency has on the learning environment. It ends with an open forum discussion of the material and its implications.

Designing Activities

Designing Activities capitalizes on the previous segments and their activities as a basis for improving student performance through the use of interactive learning. Directed discovery and small group learning activities are contrasted with the standard lecture format. Attendees participate in an interactive learning environment through the activities of this segment. Attendees are shown how to design, present, grade competency, and trouble shoot activities. It ends with an open forum discussion of the material and its implications.

Walking the talk

This last segment consists of fun and games designed and presented by attendees. These 5-minute presentations and activities utilize aspects of the previous segments. These are attendees' declarations that the information provided by this seminar has been assimilated, processed, and applied. It ends with an open forum discussion of the material and its implications. Certificates of competency are issued at the completion of this segment.

Appendix D

Examples of Measurement Instruments

EXAMPLES OF MEASUREMENT INSTRUMENTS

This appendix illustrates a few of the many measurement instruments used during the seminar appearing in the attendee Notebook. These instruments include keys and explanations to better understand outcomes. Attendees participate in all measurement activities, which provide them with the ability to administer and evaluate each instrument. Ultimately this illuminates the various facets of student cognitive styles.

A BRIEF TEST OF CHARACTER TRAITS

Place a ✓ in the box before your best answer

1. I prefer to be:

- E seemly
- Q efficient
- Y pleasing
- B effective

2. I prefer feeling:

- X inspired
- A excited
- D concerned
- P calm

3. I take pride in being:

- A a winner
- D accountable
- P competent
- X authentic

4. I'd like being a:

- E magnate
- Q wizard
- Y sage
- B prodigal

5. I'd rather be:

- P pragmatic
- X ethical
- A practical
- D traditional

6. There's a virtue in:

- Z goodwill
- C boldness
- F ownership
- R independence

7. I'm confident when:
- C dashing
 - F included
 - R self-willed
 - Z in rapport
8. I most often look for:
- X my identity
 - A adventures
 - D security
 - P means
9. I'm proud of being:
- Y genuine
 - B ahead
 - E dependable
 - Q capable
10. I'm best at:
- C expediting
 - F monitoring
 - R organizing
 - Z mentoring
11. I often crave:
- A spontaneity
 - D ceremony
 - P achievement
 - X love
12. I put my trust in:
- D authority
 - P reason
 - X intuition
 - A luck

13. I am a good:

- B crafter
- E inspector
- Y counselor
- Q sequencer

14. I can be:

- B impetuous
- E dispirited
- Q preoccupied
- Y alienated

15. I'd rather be:

- P ingenious
- X prophetic
- A a prodigy
- D dignified

16. I'm better at:

- D logistics
- P strategy
- X diplomacy
- A tactics

17. I count more on:

- B chance
- E certification
- Q logic
- Y instinct

18. I like being seen as:

- R progressive
- Z altruistic
- C urbane
- F forbearing

19. I'm better acting as:
- Z an envoy
 - C a player
 - F a Broker
 - R a planner
20. I tend to be rather:
- X credulous
 - A optimistic
 - D pessimistic
 - P skeptical
21. I'm often:
- A cynical
 - D fatalistic
 - P solipsistic
 - X mystical
22. I often speak in:
- B street talk
 - E polite terms
 - Q shop talk
 - Y metaphors
23. I like myself more if:
- D prosperous
 - P autonomous
 - X benevolent
 - A nervy
24. I often search for:
- Q modes
 - Y self
 - B risks
 - E safety

25. I like being seen as:
- R generative
 - Z unworldly
 - C worldly
 - F dedicated
26. I have more faith in:
- Z feelings
 - C the breaks
 - F licensure
 - R grounds
27. I often yearn for:
- R attainment
 - Z affection
 - C whims
 - F rites
28. I'm better at:
- Q devising
 - Y championing
 - B adapting
 - E supplying
29. I often want more:
- A pleasures
 - D services
 - P problems
 - X romance
30. I'm more capable in:
- Z personalizing
 - C thematizing
 - F standardizing
 - R systemizing

31. My words are often:

- D conventional
- P technical
- X allegorical
- A lingo

32. Trouble is often:

- Y paradoxical
- B farcical
- E predestined
- Q meaningless

33. I tend to seek:

- F immunity
- R methodology
- Z uniqueness
- C gambles

34. I'm rather often:

- Q a doubter
- Y a believer
- B buoyant
- E leery

35. I often speak:

- Z figuratively
- C slang
- F establishment
- R jargon

36. I'm self-confident if:

- P self-directed
- X empathic
- A impactful
- D belonging

37. I often feel:

- Q tranquil
- Y enthused
- B elated
- E serious

38. I have a hunger for:

- Y caring
- B impulses
- E rituals
- Q accomplishments

39. I often speak of:

- P entailment
- X cues
- A facets
- D amounts

40. Sometimes I get:

- Z estranged
- C reckless
- F downcast
- R distracted

41. I'm better at:

- B composing
- E insuring
- Q configuring
- Y conciliating

42. Bad times are often:

- R random
- Z inexplicable
- C a mockery
- F inevitable

43. Maybe I'll become:

- C top dog
- F an official
- R a mastermind
- Z a seer

44. My best ability is:

- D stabilizing
- P patterning
- X humanizing
- A fashioning

45. I'd be good at:

- P a marshaller
- X a teacher
- A an expediter
- D a supervisor

46. I can do well in:

- X advocating
- A improvising
- D providing
- P contriving

47. I'd like to be:

- C a virtuoso
- F a magistrate
- R a genius
- Z an oracle

48. I prefer to feel:

- F solemn
- R serene
- Z fervent
- C thrilled

49. There's virtue in:

- B daring
- E affluence
- Q independence
- Y kindness

50. I emphasize:

- C description
- F evaluation
- R definition
- Z interpretation

51. I'm better at:

- F providing
- R inventing
- Z revealing
- C performing

52. I like being seen as:

- Y warm
- B sophisticated
- E staunch
- Q productive

53. I'm confident if I'm:

- E a member
- Q strong-willed
- Y sympathetic
- B impressive

54. I like myself if I'm:

- R skilled
- Z sincere
- C competitive
- F responsible

55. Under stress I can get:

- D depressed
- F preoccupied
- X confused
- A impulsive

DIRECTIONS FOR SCORING

Determine your score by adding:

- The number of A, B, and C choices
- The number of D, E, and F choices
- The number of P, Q, and R choices
- The number of X, Y, and Z choices
- Place the totals of each in the correct boxes
- Add each row together
- Place that total in the correct box
- The largest of these sums indicates which of the temperaments you are probably most like

$$\text{A } \square + \text{B } \square + \text{C } \square = \square \text{ The Artisans}$$

$$\text{D } \square + \text{E } \square + \text{F } \square = \square \text{ The Guardians}$$

$$\text{P } \square + \text{Q } \square + \text{R } \square = \square \text{ The Rationals}$$

$$\text{X } \square + \text{Y } \square + \text{Z } \square = \square \text{ The Idealists}$$

DESCRIPTIONS OF THE FOUR CHARACTER TYPES

*The following information was found at:
<http://keirse.com/personality/sj.html>*

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Artisans (Concrete Utilitarian)

Being concrete in communicating and utilitarian in implementing goals can become highly skilled in tactical variations. Thus their most practiced and developed intelligent operations are usually promoting and operating (SPT expediting), or displaying and composing (SPF improvising). They would be virtuosos of one of these forms of artistic operation if they could. Artisans are proud of themselves in the degree that they are graceful in action, respect themselves in the degree that they are daring, and feel confident of themselves in the degree that they are adaptable. This "Sensations Seeking Personality" trusts in spontaneity and hungers for impact on others. They are usually hedonic about the present, optimistic about the future, cynical about the past, and their preferred time and place is the here and now. Educationally they go for arts and crafts, avocationally for techniques, and vocationally for operations work. They tend to be permissive as parents, playmates as spouses, and play oriented as children. There are many artisans to be found in many places where the action is. At least 35% to 40% of the population is artisans.

Guardians SJs (Concrete Sanctioner)

Being concrete in communicating and cooperative in implementing goals, they can become highly skilled in logistics. Thus their most practiced and developed intelligent operations are often supervising and inspecting (SJT administering), or supplying and protecting (SJF conserving). They would be magistrates watching over these forms of social facilitation if they could. They are proud of themselves in the degree that they are reliable in action, respect themselves in the degree that they do good deeds, and feel confident of themselves in the degree that they are respectable. In the search of security they are the "Security Seeking Personality" they trust in legitimacy and hunger for membership. They are usually stoical about the present, pessimistic about the future, fatalistic about the past, and their preferred time and place is the past and the gateway. Educationally they go for commerce, avocationally for regulations, and vocationally for material work. They tend to be enculturating as parents, helpmates as spouses, and conformity oriented as children. There are even more guardians than artisans around. At least 40% to 45% of the population is guardian.

Rationals NTs (abstract Utilitarian)

Being abstract in communicating and utilitarian in implementing goals, they can become highly skilled in strategic analysis. Thus their most practiced and developed intelligent operations tend to be marshalling and planning (NTJ organizing), or inventing and configuring (NTP engineering). They would be wizards in one of these forms of rational operation if they could. They are proud of themselves in the degree that they are competent in action, respect themselves in the degree that they are autonomous, and feel confident of themselves in the degree that they are strong willed. Ever in search of knowledge, this is the "Knowledge Seeking Personality". They trust in reason and hunger for achievement. They are usually pragmatic about the present, skeptical about the future, solipsistic about the past, and their preferred time and place are the interval and the intersection. Educationally they go for the sciences, avocationally for technology, and vocationally for systems work. Rationals tend to be individualizing as parents, mind mates as spouses, and learning oriented as children. Rationals are very infrequent, comprising as few as 5% to 7% of the population.

Idealists NFs (Abstract Sanctioner)

Being abstract in communicating and cooperative in implementing goals, they can become highly skilled in diplomatic integration. Thus their most practiced and developed intelligent operations are usually teaching and counseling (NFJ mentoring), or conferring and tutoring (NFP advocating). They would be sages in one of these forms of social development if they could. The idealist temperament have an instinct for interpersonal integration, learn ethics with ever increasing zeal, sometimes become diplomatic leaders, and often speak interpretively and metaphorically of the abstract world of their imagination.

They are proud of themselves to the degree that they are empathic in action, respect themselves to the degree that they are benevolent, and feel confident in themselves to the degree that they are authentic. Idealist types search for their unique identity, hunger for deep and meaningful relationships, wish for a little romance each day, trust their intuitive feelings implicitly, and aspire for profundity. This is the "Identity Seeking Personality". They are credulous about the future, mystical about the past, and their preferred time and place are the future and the pathway. Educationally they go for the humanities, avocationally for ethics, and vocationally for personnel work.

Social relationships: In their family interactions they strive for mutuality, provide spiritual intimacy for their mates, opportunity for fantasy for their children, and for themselves continuous self-renewal. Idealists do not abound, being as few as 8% to 10% of the population.

THE ROGERS INDICATOR OF MULTIPLE INTELLIGENCES

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DIRECTIONS: Using the descriptors below, place the number of your most accurate response for each statement in the boxes. Think carefully about your knowledge, beliefs, preferences, behavior, and experience. Decide quickly and move on. There is no right or wrong, no good or bad, no expected or desirable response. Use your heart as well as your head. Focus on the way you really are, not on the way you "ought to be" for someone else.

Rarely	Occasionally	Sometimes	Usually	Almost Always
1	2	3	4	5

1. I am careful about the direct and implied meanings of the words I choose.
2. I appreciate a wide variety of music.
3. People come to me when they need help with math problems or any calculations.

4. In my mind, I can visualize clear, precise sharp images.
5. I am physically well coordinated.
6. I understand why I believe and behave the way I do.
7. I understand the moods, temperaments, values, and intentions of others.
8. I confidently express myself well in words, written or spoken.
9. I understand the basic precepts of music such as harmony, chords, and keys.
10. When I have a problem, I use a logical, analytical, step-by-step process to arrive at a solution.
11. I have a good sense of direction.

12. I have skill in handling objects such as scissors, balls, hammers, scalpels, paintbrushes, knitting needles, pliers, etc.
13. My self-understanding helps me to make wise decisions for my life.
14. I am able to influence other individuals to believe and/or behave in response to my own beliefs, preferences, and desires.
15. I am grammatically accurate.
16. I like to compose or create music.
17. I am rigorous and skeptical in accepting facts, reasons and principles.
18. I am good at putting together jigsaw puzzles, and reading instructions, patterns, or blueprints.
19. I excel in physical activities such as dance, sports, or games.

20. My ability to understand my own emotions helps me decide whether or how to be involved in certain situations.
21. I would like to be involved in "helping" professions such as teaching, therapy, or counseling, or to do work such as political or religious leadership.
22. I am able to use spoken or written words to influence or persuade others.
23. I enjoy performing music, such as singing or playing a musical instrument for an audience.
24. I require scientific explanations of physical realities.
25. I can read maps easily and accurately.
26. I work well with my hands, as would an electrician, seamstress, plumber, tailor, mechanic, carpenter, assembler, etc.

27. I am aware of the complexity of my own feelings, emotions, and beliefs in various circumstances.
28. I am able to work as an effective intermediary in helping other individuals and groups to solve their problems.
29. I am sensitive to the sounds, rhythms, inflections, and meters of words, especially as found in poetry.
30. I have a good sense of musical rhythm.
31. I would like to do the work of people such as chemists, engineers, physicists, astronomers, or mathematicians.
32. I am able to produce graphic depictions of the spatial world as in drawing, painting, sculpting, drafting, or map making.
33. I relieve stress or find fulfillment in physical activities.

34. My inner self is my ultimate source of strength and renewal.
35. I understand what motivates others even when they are trying to hide their motivations.
35. I enjoy reading frequently and widely.
37. I have a good sense of musical pitch.
38. I find satisfaction in dealing with numbers.
39. I like the hands-on approach to learning when I can experience personally the objects that I'm learning about.
40. I have quick and accurate physical reflexes and responses.
41. I am confident in my own opinions and am not easily swayed by others.
42. I am comfortable and confident with groups of people.

43. I use writing as a vital method of communication.
44. I am affected both emotionally and intellectually by music.
45. I prefer questions that have definite "right" and "wrong" answers.
46. I can accurately estimate distances and other measurements.
47. I have accurate aim when throwing balls or in archery, shooting, golf, etc.
48. My feelings, beliefs, attitudes, and emotions are my own responsibility.
49. I have a large circle of close associates.

MULTIPLE INTELLIGENCE SCORE

DIRECTIONS: In the chart below, the box numbers correspond to the statement numbers in the survey. Place the rating judgment for each statement in the numbered boxes below. Then add down the columns and write the totals at the bottom to determine your score in each of the seven intelligence categories. Then for the meanings of the scores consult the interpretations following the chart.

	Verbal/ Linguistic	Musical/ Rhythmic	Logical/ Mathematical	Visual/ Spatial	Bodily/ Kinesthetic	Intra- Personal	Inter- personal
	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31	32	33	34	35
	36	37	38	39	40	41	42
	43	44	45	46	47	48	49
TOTALS							

INTERPRETATIONS OF SCORES

To some degree we possess all of these intelligences, and all can be enhanced. We are each a unique blend of all seven. We all differ in the degree to which we prefer and/or are competent to use each intelligence. Below are interpretations for the scores in the three ranges of low, moderate, and high.

<u>Score</u>	<u>Intensity of Preference and/or Competence</u>
--------------	--

7 - 15	Low Intensity: You tend to avoid and are probably uncomfortable when using this intelligence. Tertiary preference (3). This probably is not your favorite. You may lack confidence and go out of your way to avoid exercise of this intelligence. Your competence is probably low. Unless you are unusually motivated, gaining expertise might be frustrating and would require great effort.
--------	---

16 - 26	Moderate Intensity: You tend to accept and/or use this intelligence with some comfort and ease. Secondary preference (2). Though you accept it, you do not prefer to employ it. You would not necessarily avoid using it because you have a moderate preference for this intelligence. Your competence is probably moderate also. Gaining expertise would be satisfying, but probably would require considerable effort.
---------	--

27 - 35

High Intensity: You tend to prefer and use this intelligence with comfort and ease. **Primary preference (1).** You enjoy using it and usually select it. Your competence is relatively high if you have developed it. Becoming an expert should be rewarding and fulfilling, and will probably require little effort compared to a moderate or low preference.

HOW DO I LEARN

This exercise that appears on the next page is designed to assist the student in determining his/her own learning style. No one learning style is better than another. Distribute the following questionnaire to your students and ask that they reflect on it until next week. Students can then write their discovery and/or intention statements. They can also be invited to talk about what they learned during share time. Discussion groups may facilitate a better understanding of each student's choice. Remember, there is no correct or incorrect answer. They do provide an indication as to whether the student is globally or non-globally oriented.

DIRECTIONS: Circle the items you think are most like you. If you think more than one item is like you, circle more than one.

<p>A. I can learn best in the:</p> <ol style="list-style-type: none">1. morning2. middle of the day3. afternoon4. evening <p>B. I can learn something easily by:</p> <ol style="list-style-type: none">1. reading it2. hearing it3. seeing it in pictures4. writing it in my own words5. explaining it to someone6. drawing a diagram or picture of it7. talking about it with someone else8. teaching somebody else <p>C. I dislike having to learn:</p> <ol style="list-style-type: none">1. in large groups2. in small group meetings3. in game situations4. with a partner who chose me5. with a partner the teacher chose for me6. with a partner I don't know7. by myself8. in team situations	<p>D. While learning, what bothers me most is:</p> <ol style="list-style-type: none">1. being in a quiet place2. being in a noisy place3. having a radio or TV on4. being interrupted5. stopping before I'm finished6. waiting on others to finish <p>E. I seem to do homework best with:</p> <ol style="list-style-type: none">1. an hour or more to think2. short work sessions3. having a work routine <p>F. For learning by reading, I like to:</p> <ol style="list-style-type: none">1. Ask questions before reading2. Skim before reading3. Ask questions after reading <p>My most difficult subject matter is: _____ _____ _____</p> <p>The easiest: _____ _____ _____</p>
--	---

LEARNING STYLES EXERCISE

This exercise is designed to identify how individuals learn most easily and most efficiently. This is not a test. There are no right or wrong answers. In this exercise you will hear a total of fifty single English words. Each word is a common word you are familiar with. As you hear each word, observe your own immediate reaction. Notice what goes on inside your head. For each word, you will probably:

1. Visualize an activity
2. Picture the word spelled out in your mind
3. Hear the word and understand its meaning based on the sound
4. Have some physical or emotional feeling about the word, such as a tightening of a muscle or a feeling such as warmth, sorrow, etc.

This is NOT a test of word association. It is not important which other word or what picture you might think of. The nature of your own immediate and instantaneous reaction to the word itself is the important data.

DIRECTIONS: On the answer sheet provided, circle the number in the appropriate column for your own response to each word. Each word will be read only one time, since the important answer is your immediate response when you first hear the word, not what comes to you after you have thought about it for a few seconds or have heard the word a second time.

The following words are to be read out loud to your students. Say each word only once.

- | | | |
|---------------|-------------|-------------|
| 1. Pool | 18. Foot | 35. Freedom |
| 2. Tall | 19. Justice | 36. Letter |
| 3. Summer | 20. Baby | 37. Think |
| 4. Long | 21. Enemy | 38. Love |
| 5. House | 22. Bag | 39. Running |
| 6. Guilty | 23. Shame | 40. Ugly |
| 7. Chicken | 24. Street | 41. Law |
| 8. Strange | 25. Truth | 42. Angry |
| 9. Liar | 26. Story | 43. Friend |
| 10. Beautiful | 27. Happy | 44. Paper |
| 11. Grass | 28. Ground | 45. Warm |
| 12. Hope | 29. Hate | 46. Above |
| 13. Yellow | 30. Talk | 47. Kill |
| 14. Fear | 31. Ocean | 48. Swim |
| 15. Five | 32. Good | 49. Hungry |
| 16. God | 33. Paint | 50. Bad |
| 17. Read | 34. Down | |

Learning Style Identification Exercise Answer Sheet

Name _____ Date _____ Class _____

Instructions: As each word is read, circle the letter indicating your response according to the following code:

- A. Mental picture of some object or activity
- B. Mental picture of the word spelled out
- C. No mental picture; sound of word carries meaning
- D. Physical or emotional feeling about the word

- | | | |
|-------------|-------------|-------------|
| 1. A B C D | 18. A B C D | 35. A B C D |
| 2. A B C D | 19. A B C D | 36. A B C D |
| 3. A B C D | 20. A B C D | 37. A B C D |
| 4. A B C D | 21. A B C D | 38. A B C D |
| 5. A B C D | 22. A B C D | 39. A B C D |
| 6. A B C D | 23. A B C D | 40. A B C D |
| 7. A B C D | 24. A B C D | 41. A B C D |
| 8. A B C D | 25. A B C D | 42. A B C D |
| 9. A B C D | 26. A B C D | 43. A B C D |
| 10. A B C D | 27. A B C D | 44. A B C D |
| 11. A B C D | 28. A B C D | 45. A B C D |
| 12. A B C D | 29. A B C D | 46. A B C D |
| 13. A B C D | 30. A B C D | 47. A B C D |
| 14. A B C D | 31. A B C D | 48. A B C D |
| 15. A B C D | 32. A B C D | 49. A B C D |
| 16. A B C D | 33. A B C D | 50. A B C D |
| 17. A B C D | 34. A B C D | |

Total Responses: A _____ B _____ C _____ D _____

A GUIDE TO INTERPRETING THE SCORE

- A. **Visualization** - This category indicates the relative importance to the learner for actually seeing objects and activities in order for him/her to learn.
- B. **Written Word** - This category is distinguished from the first by noting whether a person gets more details from an incident by seeing the event occur (visualizations) or by reading a description of the event (written word). Persons scoring very high in this category have a great dependence on the written word. Persons scoring very low in this category may read quite well, but tend to translate written words into another category (visual images or sounds) rather than being able to get meaning from the words immediately.
- C. **Sound Understanding or Listening** - This category indicates the degree to which a person is able to learn from hearing the spoken language without using some other mode. Persons scoring very high in this category will find audio tapes an invaluable aid in learning. Those scoring very low will probably need to work to increase comprehension of the spoken language.
- D. **Feeling or Activity** - This category represents the importance of physical activity to the learning process. A person scoring high in this category finds it advantageous to become physically active in order to facilitate learning. Such activities include taking notes, writing out exercises, or pacing the floor while memorizing. Persons scoring fairly high in this category are usually compulsive note takers in class, lectures, and even films. They seldom need to refer to their notes at a later time because the activity of writing seems to impress the information on their memory.

THE KEIRSEY CHARACTER SORTER

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The questionnaire is in two parts. In the first part, for each question, rank each response according to your preference. **Choose option 1 for most preferred choice, 4 for your least preferred choice.**

Example

Example question:

- 1 2 3 4 My second choice is on this line.
1 2 3 4 My best choice is on this line.
1 2 3 4 My third choice is on this line.
1 2 3 4 My last choice is on this line.
-

Part I

1. I'd do best in a job working with

- 1 2 3 4 systems & structures
1 2 3 4 material & services
1 2 3 4 human resources development
1 2 3 4 tools & equipment

2. I'm in a life-long search for more

- 1○ 2○ 3○ 4○ thrills & adventures
1○ 2○ 3○ 4○ self-understanding
1○ 2○ 3○ 4○ safety & security
1○ 2○ 3○ 4○ efficient operations methods

3. I'm most self-confident when I'm

- 1○ 2○ 3○ 4○ strong-willed & resolute
1○ 2○ 3○ 4○ honorable & respectable
1○ 2○ 3○ 4○ genuine & authentic
1○ 2○ 3○ 4○ adaptable & flexible

4. As a guide to action I look primarily at

- 1○ 2○ 3○ 4○ immediate advantages
1○ 2○ 3○ 4○ future possibilities
1○ 2○ 3○ 4○ past experience
1○ 2○ 3○ 4○ the necessary & sufficient

5. I often like to be

- 1○ 2○ 3○ 4○ calm, cool, & collected
1○ 2○ 3○ 4○ cautious & prudent
1○ 2○ 3○ 4○ enthusiastic & inspired
1○ 2○ 3○ 4○ excited & stimulated

6. I feel best about myself when

- 1 2 3 4 I'm graceful in action
1 2 3 4 I feel empathy for someone
1 2 3 4 I'm rock-solid dependable
1 2 3 4 I exercise my ingenuity

7. I keep coming back to

- 1 2 3 4 figuring out how things work
1 2 3 4 shoulds & shouldn'ts
1 2 3 4 help others accept themselves
1 2 3 4 perfecting my craft

8. I'd rather study

- 1 2 3 4 arts & crafts
1 2 3 4 literature & humanities
1 2 3 4 business & finance
1 2 3 4 science & engineering

9. I'm more inclined to trust

- 1 2 3 4 pure reason & formal logic
1 2 3 4 customs & traditions
1 2 3 4 intuitions & intimations
1 2 3 4 Impulses & whim

10. I'm sometimes eager to

- 1 2 3 4 make impression & have impact
1 2 3 4 have romantic dreams
1 2 3 4 belong & be a worthy member
1 2 3 4 achieve scientific advance

11. If it were possible I'd like to become

- 1 2 3 4 a technological genius
1 2 3 4 a chief executive
1 2 3 4 a wise prophet
1 2 3 4 an artistic virtuoso

12. I appreciate it when others

- 1 2 3 4 surprise me with generosity
1 2 3 4 recognize my true self
1 2 3 4 express their gratitude
1 2 3 4 ask me what I think

13. I respect myself more for

- 1 2 3 4 being autonomous & independent
1 2 3 4 doing good deeds
1 2 3 4 having good intentions
1 2 3 4 being bold & adventurous

14. In facing the future I guess that

- 1○ 2○ 3○ 4○ something good will turn up
1○ 2○ 3○ 4○ it's best to stick to my beliefs
1○ 2○ 3○ 4○ my motto is "be prepared"
1○ 2○ 3○ 4○ it's best to have my doubts

15. Coming right down to it I tend to be

- 1○ 2○ 3○ 4○ efficient & pragmatic
1○ 2○ 3○ 4○ dutiful & diligent
1○ 2○ 3○ 4○ compassionate & empathic
1○ 2○ 3○ 4○ practical & opportunistic

16. Thinking about misfortune

- 1○ 2○ 3○ 4○ I laugh it off
1○ 2○ 3○ 4○ I wonder why
1○ 2○ 3○ 4○ I make the best of it
1○ 2○ 3○ 4○ I view it from a wide perspective

THE KEIRSEY CHARACTER SORTER

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Part II

Select the appropriate response. Skip the difficult choices.

1. Do you think of your self as a
 - sentimental person
 - hard-headed person

2. Are you the kind of person who
 - doesn't miss much
 - is rather talkative

3. In trying circumstances can you be
 - too sympathetic
 - rather unsympathetic

4. Does interacting with strangers
 - tax your reserves
 - energize you

5. Are you swayed more by
 - a touching appeal
 - solid evidence

6. Do you tend to
 - keep your ears open
 - blurt out what's on your mind

7. At work, is it more natural for you to
 - try to please others
 - tell others what to do

- 8. At the market, are you likely to**
- waste no time
 - chat with strangers
- 9. If you must disappoint someone are you**
- warm & considerate
 - blunt about it
- 10. When the phone rings do you**
- hope someone else will answer
 - hurry to get to it first
- 11. Are you more comfortable in making**
- warm-hearted choices
 - tough-minded choices
- 12. At a party, do you**
- wait to be approached
 - strike up conversations
- 13. In a discussion, do you manage to**
- look for common ground
 - stick to your guns
- 14. Do you think of yourself as**
- a private person
 - an outgoing person
- 15. In evaluating others are you inclined to be**
- rather compassionate
 - rather dispassionate
- 16. At work are you inclined to**
- keep more to yourself
 - be sociable with your colleagues

17. Which rules you more

- your feelings
- your thoughts

18. Do you consider yourself

- "a good listener"
- blessed with a "gift of gab"

19. With children, are you usually

- forgiving & lenient
- firm & tough

20. Do you prefer spending an evening with

- a few friends you can really talk with
- many friends, visiting with each briefly

THE TRAITS OF TEMPERAMENT AND CHARACTER

		CONCRETE		ABSTRACT	
COMMUNICATION IMPLEMENTATION CHARACTER	UTILITARIAN ARTISAN	COOPERATIVE GUARDIAN	COOPERATIVE IDEALIST	UTILITARIAN RATIONAL	
Language Referential Systematic Rhetorical	Harmonic Indicative Descriptive Heterodox	Associative Imperative Comparative Orthodox	Inductive Interpretive Metaphoric Hyperbolic	Deductive Categorical Subjunctive Technical	
Intellect Directive Role Expressive Reserved Infom. Role Expressive Reserved	Tactical Operator Promoter Crafter Entertainer Performer Composer	Logistical Administrator Supervisor Inspector Conserving Provider Protector	Diplomatic Mentor Teacher Counselor Advocating Champion Healer	Strategic Coordinator Fieldmarshal Mastermind Engineer Inventor Architect	
Interest Education Preoccupation Vocation	Artcraft Technique Equipment	Commerce Morality Material	Humanities Morale Personnel	Sciences Technology Systems	
Orientation Present Future Past Place Time	Hedonism Optimism Cynicism Here Now	Stoicism Pessimism Fatalism Gateways Yesterday	Altruism Credulism Mysticism Pathways Tomorrow	Pragmatism Skepticism Relativism Intersections Intervals	
Self-Image Self-Esteem Self-Respect Self-Confidence	Artistic Audacious Adaptable	Dependable Beneficent Respectable	Empathic Benevolent Authentic	Ingenious Autonomous Resolute	
Value Being Trusting Yearning Seeking Prizing Aspiring	Excited Impulse Impact Stimulation Generosity Virtuoso	Concerned Authority Belonging Security Gratitude Executive	Enthusiastic Intuition Romance Identity Recognition Sage	Calm Reason Achievement Knowledge Deference Wizard	
Social Role Mating Parenting Leading	Playmate Liberator Negotiator	Helpmate Socializer Stabilizer	Soulmate Harmonizer Catalyst	Mindmate Individuator Visionary	

THE KEIRSEY TEMPERAMENT SORTER II

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1. **Do you find visionaries and theorists**
 - somewhat annoying
 - rather fascinaing
2. **Is it worse to be**
 - a softy
 - hard-nosed
3. **Do you tend to be more**
 - factual than speculative
 - speculative than factual
4. **When in charge of others do you tend to be**
 - firm and unbending
 - forgiving and lenient
5. **Are you more**
 - observant than introspective
 - introspective than observant
6. **Facts**
 - speak for themselves
 - illustrate principles
7. **With people are you usually more**
 - firm than gentle
 - gentle than firm

- 8. In stories do you prefer**
- action and adventure
 - fantasy and heroism
- 9. In a heated discussion, do you**
- stick to your guns
 - look for common grounds
- 10. Are you the kind of person who**
- is rather talkative
 - doesn't miss much
- 11. Are you swayed more by**
- convincing evidence
 - a touching appeal
- 12. Do you feel better about**
- coming to closure
 - keeping your options open
- 13. Are you inclined to be**
- hurried than leisurely
 - leisurely than hurried
- 14. Do you usually want things**
- settled and decided
 - just penciled
- 15. On the job do you want your activities**
- scheduled
 - unscheduled

- 16. Are you more comfortable in making**
- critical judgements
 - value judgements
- 17. Are you prone to**
- nailing things down
 - exploring the possibilities
- 18. Are you inclined to take what is said**
- more literally
 - more figuratively
- 19. Are you more**
- sensible than ideational
 - ideational than sensible
- 20. Is it your way to**
- make up your mind quickly
 - pick and choose at some length
- 21. Which seems the greater fault:**
- to be too compassionate
 - to be too discompassionate
- 22. Which do you wish more for yourself:**
- strength of will
 - strength of emotion
- 23. Are you more interested in**
- what is actual
 - what is possible

- 24. Do you think of yourself as a**
- tough-minded person
 - tender-hearted person
- 25. Which is more of a compliment:**
- "There's a logical person"
 - "There's a sentimental person"
- 26. Are you more often**
- a cool-headed person
 - a warm-hearted person
- 27. Does interacting with strangers**
- energize you
 - tax your reserves
- 28. When finishing a job, do you like to**
- tie up all the loose ends
 - move on to something else
- 29. Do you tend to choose**
- rather carefully
 - somewhat impulsively
- 30. Do you consider yourself**
- a good conversationalist
 - a good listener
- 31. Do you prize in yourself**
- a strong hold on reality
 - a vivid imagination

32. Do you more often prefer

- final, unalterable statements
- tentative, preliminary statements

33. Do you value in yourself more that you are

- reasonable
- devoted

34. At a party, do you

- interact with many, even strangers
- interact with a few friends

35. At work do you tend to

- be sociable with your colleagues
- keep more to yourself

36. Waiting in line, do you often

- chat with others
- stick to business

37. If you must disappoint someone are you usually

- frank and straight forward
- warm and considerate

38. Do you see yourself as basically

- thick-skinned
- thin-skinned

39. Which appeals to you more

- consistency of thought
- harmonious relationships

40. Would you say you are more

- serious and determined
- easy going

41. Do you prefer contracts to be

- signed, sealed, and delivered
- settled on a handshake

42. Is it preferable mostly to

- make sure things are arranged
- just let things happen naturally

43. Are you more satisfied having

- a finished product
- work in progress

44. Is it worse to

- have your head in the clouds
- be in a rut

45. In making up your mind, you more likely to go by

- data
- desires

46. Is it easier for you to

- put others to good use
- identify with others

47. Do you think of yourself as

- an outgoing person
- a private person

48. Do you tend to

- say right out what's on your mind
- keep your ears open

49. In most situations are you more

- deliberate than spontaneous
- spontaneous than deliberate

50. In trying circumstances are you sometimes

- too unsympathetic
- too sympathetic

51. Are you more frequently

- a practical sort of person
- a fanciful sort of person

52. Do you tend to notice

- disorderliness
- opportunities for change

53. In sizing up others do you tend to be

- objective and impersonal
- friendly and personal

54. Do you more often see

- what's right in front of you
- what can only be imagined

55. Common sense is

- usually reliable
- frequently questionable

- 56. Are you drawn more to**
- fundamentals
 - overtones
- 57. Are you inclined to be**
- easy to approach
 - somewhat reserved
- 58. Which rules you more**
- your thoughts
 - your feelings
- 59. Are you more likely to trust**
- your experiences
 - your conceptions
- 60. Do you like writers who**
- say what they mean
 - use metaphors and symbolism
- 61. When the phone rings do you**
- hurry to get it first
 - hope someone else will answer
- 62. Do you prefer to work**
- to deadlines
 - just whenever
- 63. Children often do not**
- make themselves useful enough
 - exercise their fantasy enough

- 64. At work, is it more natural for you to**
- point out mistakes
 - try to please others
- 65. Are you more comfortable**
- after a decision
 - before a decision
- 66. Do you speak more in**
- particulars than generalities
 - generalities than particulars
- 67. Is it better to be**
- just
 - merciful
- 68. Are you more inclined to feel**
- down to earth
 - somewhat removed
- 69. Is clutter in the work place something you**
- take time to straighten up
 - tolerate pretty well
- 70. Are you more**
- routinized than whimsical
 - whimsical than routinized

Appendix E
Examples of Activities

EXAMPLES OF ACTIVITIES

This appendix represents only a few of the activities planned for this seminar. Activities include individual, small group, and total group participation. Activities could fall into, but not be limited to, the following categories:

- *Test taking and evaluation.*
- *Directed discovery.*
- *Student learning simulations.*

Testing & Evaluation

- Right Brain or Left Brain.
- Personality Type.
- Learning Styles.
- Instructor Styles.
- Temperament Sorter.

Directed Discovery

- Classroom Dynamics Good vs. Bad.
- Presentation Style Good vs. Bad.
- Student Feedback Reflects Instructor Style.
- Learning Styles In Action.

Student Learning Simulations

- Stress Stimulators.
- Instructor vs. Student Directed Learning.
- Teamwork (solving a murder mystery).
- Let's Play.

WHAT IS YOUR COLOR

Activity One

DIRECTIONS: Have attendees go around the room and read the character descriptions on each colored poster. Then they need to stand in front of the poster that they feel best characterizes them.

Activity Two

DIRECTIONS: Separate attendees into groups by their chosen color. As a group they are to explain what being that color means to them. (Allow them 30 minutes together to strategize.)

Activity Three

DIRECTIONS: Assign each colored group a contrasting group. Using the characteristics of the other group's color they need to present an educational method that would best utilize strengths while minimizing weaknesses. Match Blue with Green, and Orange with Gold. (Allow them 30 minutes together to strategize.)

Activity Four

DIRECTIONS: Assign each colored group a contrasting group. Using the characteristics of the other group's color they need to work out a strategy for dealing with a disruptive student. Match Blue with Orange, and Green with Gold. (Allow them 30 minutes together to strategize.)

GOLD

I need to follow rules and respect authority

♦**Loyal, Dependable, Prepared**♦

I have a strong sense of what is right and wrong in life

♦**Thorough, Sensible, Punctual**♦

I need to be useful and belong

♦**Faithful, Stable, Organized**♦

I value home, family and tradition

♦**Caring, Concerned, Concrete**♦

I am a natural preserver, parent and helper

- ♦ **AT WORK,** I provide stability and can maintain organization. My ability to handle details and to work hard makes me the backbone of many organizations. I believe that work comes before play, even if I must work overtime to complete the job.

- ♦ **IN LOVE,** I am serious and tend to have traditional conservative views of both love and marriage. I want a mate who can work along with me, building a secure, predictable life together. I demonstrate love and affection through the practical things I do for my loved ones.

- ♦ **IN CHILDHOOD,** I wanted to follow the rules and regulations of the school. I understood and respected authority and was comfortable with academic routine. I was the easiest of all types of children to adapt to the educational system.

GREEN

I seek knowledge and understanding

♦Analytical, Global, Conceptual♦

I live life by my own standards

♦Cool, Calm, Collected♦

I need explanations and answers

♦Inventive, Logical, Perfectionistic♦

I value intelligence, insight, fairness and justice

♦Abstract, Hypothetical, Investigative♦

I am a natural non-conformist, a visionary, a problem solver

- ♦ **AT WORK,** I am conceptual and an independent thinker. For me, work is play. I am drawn to constant challenge in careers, and like to develop models, explore ideas, or build systems to satisfy my need to deal with the innovative. Once I have perfected an idea, I prefer to move on, leaving the project to be maintained and supported by others.
- ♦ **IN LOVE,** I prefer to let my head rule my heart. I dislike repetition, so it is difficult for me to continuously express feelings. I believe that once feelings are stated, they are obvious to a partner. I am uneasy when my emotions control me. I want to establish relationships, leave it to maintain itself, and turn my energies back to my career.
- ♦ **IN CHILDHOOD,** I appeared to be older than my years and focused on my greatest interests, achieving in subjects that were mentally stimulating. I was impatient with drill and routine. I questioned authority, and found it necessary to respect teachers before I could learn from them.

ORANGE

I act on a moments notice

♦Witty, Charming, Spontaneous♦

I consider life as a game, here and now

♦Impulsive, Generous, Impactful♦

I need fun, variety, stimulation and excitement

♦Optimistic, Eager, Bold♦

I value skill, resourcefulness and courage

♦Physical, Immediate, Fraternal♦

I am a natural trouble-shooter, a performer, a competitor

- ♦ **AT WORK,** I am bored and restless with jobs that are routine and structured and satisfied in careers that allow me independence and freedom, while utilizing my physical coordination and my love of tools. I view any kind of tool as an extension of myself. I am a natural performer.
- ♦ **IN LOVE,** I seek a relationship with shared activities and interests. With my mate, I like to explore new ways to energize the relationship. As a lover, I need to be bold and I thrive on physical contact. I enjoy extravagant gifts that bring obvious pleasure to my loved ones.
- ♦ **IN CHILDHOOD,** of all types of children, I had the most difficulty in fitting into the academic routine. I learn by doing and experiencing, rather than by listening and reading. I need physical involvement in the learning process and am motivated by my own natural competitive nature and sense of fun.

BLUE

I need to feel unique and authentic

◆**Enthusiastic, Sympathetic, Personal**◆

I look for meaning and significance in life

◆**Warm, Communicative, Compassionate**◆

I need to contribute, encourage and care

◆**Idealistic, Spiritual, Sincere**◆

I value integrity, and unity in relationships

◆**Peaceful, Flexible, Imaginative**◆

I am a natural romantic, a poet, a nurturer

- ◆ **AT WORK,** I have a strong desire to influence others so they may lead more significant lives. I often work in the arts, communication, education and helping professions. I am adept at motivating and interacting with others.
- ◆ **IN LOVE,** I seek harmonious relationships. I am a true romantic and believe in perfect love that lasts forever. I bring drama, warmth, and empathy to all relationships. I enjoy the symbols of romance such as flowers, candlelight, and music and cherish the small gestures of love.
- ◆ **IN CHILDHOOD,** I was extremely imaginative and found it difficult to fit into the structure of school life. I reacted with great sensitivity to discordance or rejection and sought recognition. I responded to encouragement rather than competition.

WORKING WITH YOUR TRUE COLORS

	Gold	Green	Orange	Blue
Esteemed by:	Being of Service	Insights	Recognition	Helping People
Appreciated for:	Accuracy & Thoroughness	Their Ideas	Creativity	Unique Contributions
Validated by:	Appreciation of Service	Affirming Their Wisdom	Visible Results	Personal Acceptance
At Work They Are:	Procedural	Pragmatic	Flexible	A Catalyst
Their Specialty Is:	Results	Strategy	Energy	Relationships
Their Overall Mood:	Concerned	Cool, Calm Collected	Enthusiasm	Committed
Key Characteristic:	Reliability	Ingenuity	Skillful	Authenticity

IMPROVING PERSONAL RELATIONSHIPS

WITH A BRIGHT GREEN BY	WITH A BRIGHT BLUE BY
<p>Recognizing their need for independence ♦ Valuing their abstract thinking ♦ Helping them with day-to-day details ♦ Preserving their privacy to think and to read ♦ Accepting their lack of romantic gestures ♦ Realizing their stress comes from the fear of appearing foolish ♦ Allowing them to be self-critical ♦ Understanding that they esteem themselves by being competent ♦ Praising their ingenuity</p>	<p>Making romantic gestures ♦ Having intimate talks ♦ Recognizing their need to contribute ♦ Providing the warm touch and embrace ♦ Reassuring your loving commitment ♦ Expressing your feelings ♦ Being open and responsive</p>
WITH A BRIGHT ORANGE BY	WITH A BRIGHT GOLD BY
<p>Recognizing their need for freedom ♦ Valuing their playfulness ♦ Helping them to think before they act ♦ Spontaneously playing with them ♦ Realizing their stress comes from lack of excitement ♦ Reinforcing their optimism ♦ Praising their skills ♦ Responding to their generosity</p>	<p>Caring about their need for security ♦ Doing some reasonable planning ♦ Praising their responsible actions ♦ Remembering sentimental moments ♦ Acknowledging their stability ♦ Responding to important dates</p>

A NONVERBAL INTRODUCTION

Objectives:

1. To demonstrate that communication can sometimes be completely accomplished without words and still be largely effective.
2. To illustrate that interpersonal communication is indeed possible through the use of gestures and other nonverbal methods.

Procedure:

Divide the group into dyads (two people to each team). State that the purpose of this exercise is to introduce oneself to the other without using any words or vocalizations. Each may use visuals, pictures, signs, gestures, signals, or anything nonverbal.

After a two-minute time period allowed for each member of the dyad, have each group then take a few minutes to verbally "check out" how well each was able to communicate.

Discussion Questions:

1. How accurate were they in describing themselves? Have them rate themselves on a 1-5 scale with 5 being best.
2. How accurate were they in "reading" their partner's gestures? Have them rate using the same 1-5 scale.
3. Were some clues better than others? Why?
4. What barriers or problems got in the way?
5. How might these barriers be eliminated?

Materials Required:

None

Approximate Time Required

10 minutes

HAND TO CHIN EXERCISE

Objective:

To illustrate that action may speak louder than words.

Procedure:

As you demonstrate, ask the group to extend their right arms parallel to the floor. State, "Now make a circle with your thumb and forefinger." (As you speak, demonstrate the action.) Then continue, "Now very firmly bring your hand to your chin." (Note: As you say, "bring your hand to your chin," bring your hand to your cheek, not your chin.) Pause. (Most of the group will have done what you have, i.e., brought their hands to their cheeks.) Look around, but say nothing. After 5-10 seconds, a few in the group will realize their error and move their hands to their chins. After a few more seconds, more people will join in the laughter, and your point can then be verbally reinforced. "An instructor's actions may speak louder than words."

Discussion Questions:

1. Did you ever hear the saying, "Don't do as I do; do as I say?" Do we practice this as instructors?
2. We all know actions speak louder than words. How can we use this knowledge in our classrooms to help ensure better understanding?
3. Communication is always a scapegoat for performance problems. What other barriers to effective communication does this exercise suggest?

Materials Required:

None

Approximate Time Required:

5 minutes

ONE AND TWO WAY COMMUNICATION

Objective:

To demonstrate the misunderstanding that can occur in a one-way communication.

Procedure:

Prepare a diagram similar to the one shown on the following page. Ask a volunteer to assist. Explain to the audience that the volunteer is going to describe something to them and their task is to simply follow instructions in sketching out the illustration.

Provide the volunteer with the figure shown on the next page. Have the volunteer turn facing away from the audience to insure that no eye contact is possible. The volunteer can use only verbal communication, i.e., no gestures, hand signals, etc. Further, no questions are allowed on the part of the audience. In brief, only one-way communication is allowed. When the exercise is completed, project the correct figure using an overhead projector. Ask participants to judge whether their drawings are similar to it.

(If time allows, this activity can be immediately followed with another volunteer using a comparable illustration but allowing for full and free two-way communication.)

Discussion Questions:

1. How many of us got confused and just "quit" listening? Why?
2. Why was the one-way communication so difficult to follow?
3. Even two-way communication cannot ensure complete understanding. How can we make our classroom communication efforts more effective?

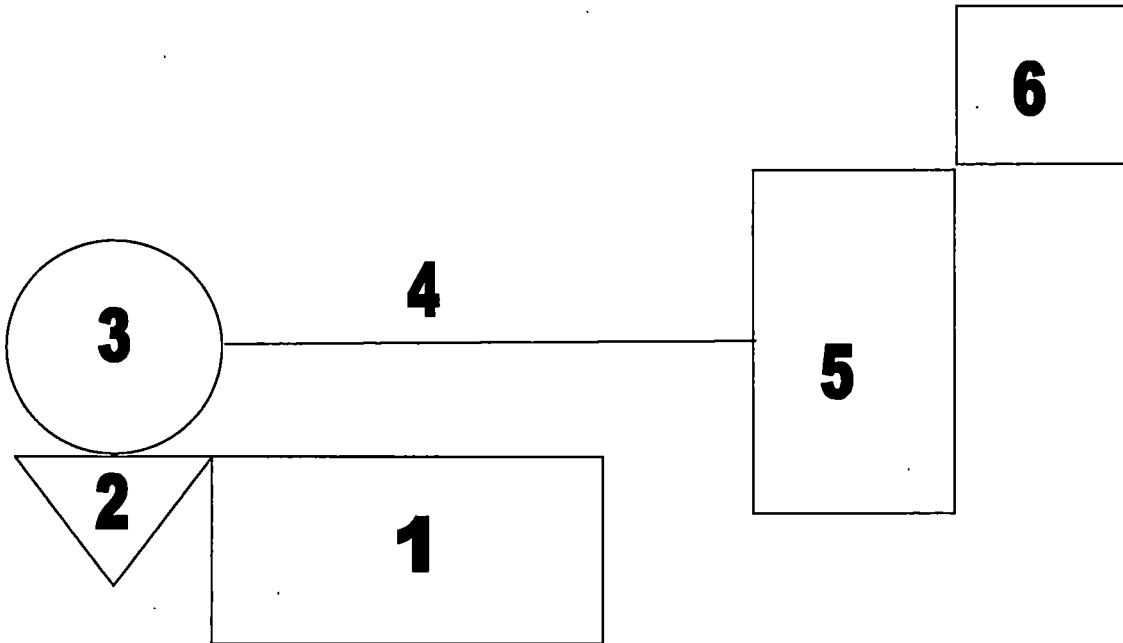
Materials Required:

Diagram, as shown
Overhead projector and screen

Approximate Time Required:

10-20 minutes

ONE WAY COMMUNICATION DIAGRAM



THE AARDVARK

Objective:

To illustrate that mental imagery or visual aids in communicating or teaching strongly increase common understanding.

Procedure:

Pass out a sheet or card with the description shown on the following page. Without identifying the object, ask the group to read through this description abstracted from an encyclopedia and then to sketch out or draw whatever kind of picture these printed words give them. Allow about 5 minutes for them to draw, and then randomly ask various people what they drew. After you have announced the correct answer as the aardvark, ask the group to reread the description to see how neatly the words are now reinforced with the mental picture in their minds.

Discussion Questions:

1. We know visuals can enhance the learning effort. Why aren't they used more often?
2. What are some problems inherent in written communication?
3. Can you recall other incidents where the written word has been the cause of misinterpretation or misunderstandings?

Materials Required:

Cards or paper with the description written on it.

Approximate Time Required:

5-10 minutes

“The body is stout, with arched back; the limbs are short and stout, armed with strong, blunt claws; the ears long; the tail thick at the base and tapering gradually. The elongated head is set on a short thick neck, and at the extremity of the snout is a disc in which the nostrils open. The mouth is small and tubular, furnished with a long extensile tongue. A large individual measured 6 feet 8 inches. In color it is pale sandy or yellow, the hair being scanty and allowing the skin to show.

Objective:

To demonstrate that most adults listen at about a 25% level of efficiency.

Procedure:

Clip a story from a newspaper or magazine that is approximately two or three paragraphs long. With absolutely no introduction, casually mention to your group, "... some of you probably saw this item in the paper the other day," and read aloud the entire two to three paragraphs. When finished, you'll see a room of either bored or disinterested faces. Pull out a dollar bill and state, "OK, I've got a few questions for you based on the story you just heard, and whoever gets them all right wins this dollar." Read eight to ten prepared questions (i.e., names, dates, places, etc.). In all likelihood, not one person will be able to answer all questions correctly.

Discussion Questions:

1. You all heard that story, yet few could remember very much about it. Why? (Disinterest, no objective, no advance reward.)
2. Why didn't we listen? Is this typical? What can we do to sharpen our listening skills? (See the following page for a list of common suggestions.)
3. If I had told you initially you could win some money, would you have listened more attentively? Why?
4. How can we ensure our students listen better (without monetary rewards)?

Materials Required:

Any newspaper article with several facts contained therein.

Approximate Time Required:

5-10 minutes

Guides to Good Listening

1. Find an area of interest
2. Judge content, not delivery
3. Delay evaluation
4. Listen for ideas
5. Be flexible
6. Actively work at listening
7. Resist distractions
8. Exercise your mind
9. Keep your mind open
10. Keep your mouth closed
11. Capitalize on thought speed

THE NINE DOTS

Objective:

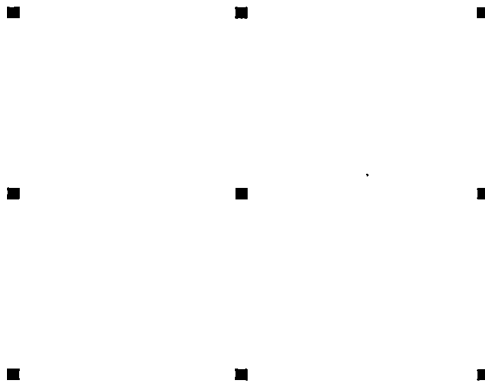
To suggest to instructors that their pre-existing mental set might constrain their capacity to learn new ideas.

Key:

To force one's mind to expand beyond the self-imposed "box" created by the nine dots.

Procedure:

Display to the group the following configuration of nine dots. Ask them to reproduce the dots on a sheet of their own paper. Assign them the task of connecting all nine dots by drawing four straight continuous lines (without lifting their pencils or retracing a line). Allow them a few minutes to make several attempts. Ask how many solved the task successfully. Then either ask a volunteer to step forward and display the correct solution, or else show them the key (found on the following page) on an overhead transparency projector.



Alternative Solutions:

1. The task can also be solved with three straight continuous lines. The first starts at the top of the upper left dot, extends through the center of the upper middle dot, on through the bottom of the upper right dot, and out beyond that dot. The second line returns through the second set of three dots, descending gradually from right to left. The last line returns through the bottom three dots
2. Another approach is to fold the paper so the three lines of dots align closely. Then a single (wide pencil line will touch all nine dots simultaneously.
3. A third approach is to take a paintbrush and, with a single sweep, connect all nine dots simultaneously.

Discussion Questions:

1. What is the impact in our minds of the configuration of the nine dots? (We mentally create a square and try to circumscribe it with the four lines, leaving the center dot untouched.)
2. What is the key to solving the puzzle? (Get our of the boxes that we, or others, create.)
3. What implications does this exercise have for our students, co-workers, and our jobs?

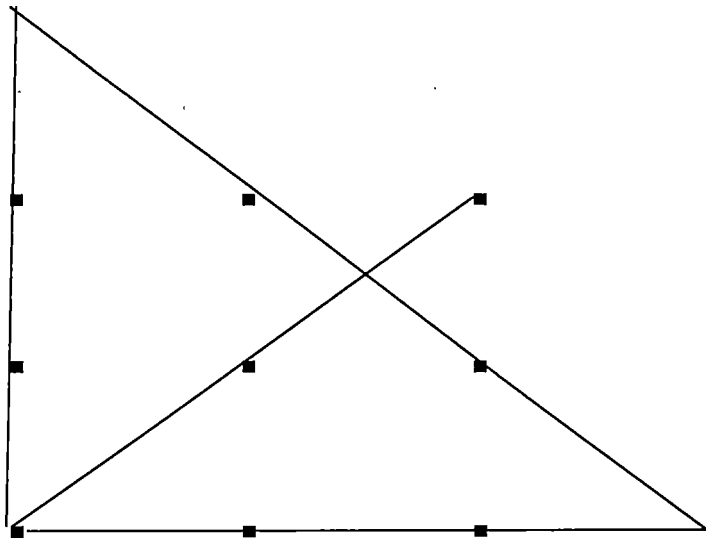
Materials Required:

A transparency of the nine dots and the solution.
An overhead projector

Approximate Time Required:

5-10 minutes

KEY: THE NINE DOTS



Appendix F

Seminar Cost Analysis

SEMINAR COST ANALYSIS

This appendix establishes the criteria to estimate the cost, to a school or educational corporation, of putting on this seminar for a group of 12 and project it for a group of 24. Consideration includes, but not limited to:

➤ Conference room/day	\$300.00
➤ Hotel accommodations/attendee/day	\$150.00
➤ Hotel accommodations/presenter/day	\$210.00
➤ Airline ticket average round trip	\$950.00
➤ Luncheon catered/person/day	\$ 45.00
➤ Meals covered by corporation @ 2/day	\$ 40.00
➤ Notebook preparation and cost	\$ 50.00
➤ Miscellaneous/day (parking/rental/tips)	\$ 40.00
➤ Substitute instructor/day	<u>\$100.00</u>
Daily Estimate	\$1,885.00

Projected Estimate

Hosting Corporation for 12 Attendees @ 3 Days:

- Conference room for 3 days\$900.00
 - Hotel room for presenter for 3 days (multiply
by the number of presenters as needed) \$630.00
 - Airline ticket for presenter (multiply by the
number of presenters as needed)\$950.00
 - Catered luncheon 12 attendees for 3 days ...\$1,620.00
 - Catered luncheon presenters for 3 days\$135.00
 - Meals covered for presenters for 3 days\$120.00
 - Notebook preparation for 12 attendees\$600.00
 - Miscellaneous for presenter for 3 days (multiplied
by the number of presenters needed)\$120.00
- 3 Day Estimate 12 Attendees & 1 Presenter\$5,075.00**
- 3 Day Estimate 24 Attendees & 1 Presenter\$7,895.00**

Projected Estimate

Hosting Corporation for 24 Attendees @ 3 Days:

- Conference room for 3 days\$900.00
 - Hotel room for presenter for 3 days (multiply
by the number of presenters as needed)\$630.00
 - Airline ticket for presenter (multiply by the
number of presenters as needed)\$950.00
 - Catered luncheon 12 attendees for 3 days ...\$3,240.00
 - Catered luncheon presenters for 3 days\$135.00
 - Meals covered for presenters for 3 days\$120.00
 - Notebook preparation for 12 attendees\$1,200.00
 - Miscellaneous for presenter for 3 days (multiply
by the number of presenters as needed)\$120.00
- 3 Day Estimate 24 Attendees & 1 Presenter\$7,895.00**

Projected Estimate

Hosting Corporation for *Presenters @ 3 Days:

- Hotel room for presenter for 3 days (multiply by the number of presenters as needed)\$630.00
 - Airline ticket for presenter (multiply by the number of presenters as needed)\$950.00
 - Catered luncheon presenter for 3 days\$135.00
 - Meals covered for presenters for 3 days\$120.00
 - Notebook preparation for presenter\$ 50.00
 - Miscellaneous for presenter for 3 days (multiply by the number of presenters as needed)\$120.00
- Presenter Estimate for 3 Days\$2,005.00**

*Suggested Presenters Needed to Put On Seminar:

Presenter to conduct actual seminar presentation (main speaker)	1
Presenters assisting with seminar presentation	2
Presenters to handle arrangements (check in, oversee, troubleshoot, etc.)	4
Total Number of Presenters Suggested	7

Projected Estimate

School Cost for 1 Attendee for 3 Days

➤ Hotel accommodations/attendee X 3 days	\$450.00
➤ Airline ticket average round trip	\$950.00
➤ Meals covered for 3 days @ 2/day	\$120.00
➤ Miscellaneous X 3 day (parking/rental/tips) ..	\$120.00
➤ Substitute instructor/day X 2 days	<u>\$200.00</u>
Estimate for 3 Days	\$1,840.00

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