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# Demonstrating Experiential Learning at the Graduate Level Using Portfolio Development and Reflection

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ABSTRACT

DEMONSTRATING EXPERIENTIAL LEARNING AT
THE GRADUATE LEVEL USING PORTFOLIO
DEVELOPMENT AND REFLECTION

by

David W. Rausch

Chair: James A. Tucker

ABSTRACT OF GRADUATE STUDENT RESEARCH

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Andrews University

School of Education

Title: DEMONSTRATING EXPERIENTIAL LEARNING AT THE GRADUATE
LEVEL USING PORTFOLIO DEVELOPMENT AND REFLECTION

Name of researcher: David W. Rausch

Name and degree of faculty chair: James A. Tucker, Ph.D.

Date completed: October 2007

Problem

Various guidelines for assessment have been developed in an effort to promote

academic quality and integrity for educational programs that recognize experiential

learning. The purpose of this present study was to determine the extent to which

experiential learning and assessment, through portfolio development, help adult students

in a graduate-degree program demonstrate graduate-level learning and competency.

Method

This qualitative single-case study used the assessment processes and outcomes

elements of the Jackson and MacIsaac process model to analyze the use of reflective

practice and the use of portfolios in a graduate education program. Data were triangulated

using individual interviews and the analysis of portfolio artifacts, attestations, and documents including reflective and synthesis papers.

## Results

The participants' perspectives of the portfolio as an experiential learning and development tool changed during the portfolio-development process. Each participant shifted from a belief that a portfolio represents experiences, to a belief that a portfolio coupled with reflection represents experiential learning. The process of theoretically informed written reflection allowed the participants to move beyond descriptive accounts of experiences to analyze, assess, interrelate, and synthesize their experiences in relation to their graduate-level learning and competency.

## Conclusions

Successful demonstration of graduate-level experiential learning when using a portfolio requires reflection that includes a description of the experience, linkage to the relevant theoretical constructs, and the application of the learning.

Andrews University

School of Education

DEMONSTRATING EXPERIENTIAL LEARNING AT
THE GRADUATE LEVEL USING PORTFOLIO
DEVELOPMENT AND REFLECTION

A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

David W. Rausch

October 2007

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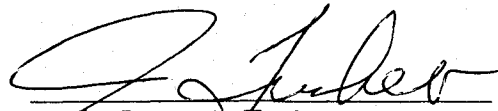
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A dissertation
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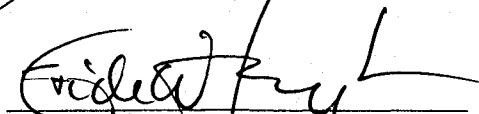
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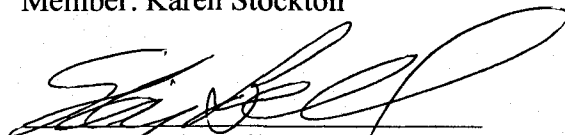
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CHAPTER 1

INTRODUCTION

Traditional classroom approaches for adults with respect to teaching, learning, coaching, and assessment may not be as effective as once thought when it comes to adult students. Adult students bring a wealth of diversity and experiences into the college setting (Brookfield, 1986; Knowles, 1984). The diversity of adult learners and the richness that such diversity brings into the learning environment is nowhere more noticeable than in the process of experiential learning, a learning process to which students bring all of their previous experiences: good, bad, and diverse (Merriam, 1996).

This study focused on the practice and assessment of graduate-level experiential learning, specifically as it occurred through the use of experiential learning portfolios as a method to demonstrate learning and to assess competencies. This study uses Voorhees' definition of competency as a combination of skills, abilities, and knowledge needed to perform a specific task (Voorhees, 2001).

**Background of the Problem**

A number of educators acknowledge the differences among students, noting the importance of program design and delivery strategies (Knowles, 1984; Merriam & Brockett, 1997; Merriam & Caffarella, 1999). Few studies examine the use of assessment

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techniques that facilitate students in documenting their experiences while at the same time engaging them in purposeful self-reflection and assessment of their experiential learning while in the practice of their profession (Merriam & Brockett, 1997; Merriam & Caffarella, 1999). Understanding how adults learn while developing appropriate programs and instructional techniques for this growing population in higher education has been the subject of numerous studies (Apps, 1991; Brookfield, 1986; Knowles, 1984; Merriam & Caffarella, 1999).

Researchers have investigated the unique characteristics of adult learners and the role that experience plays in how adults learn (Apps, 1991; Brookfield, 1986; Knowles, 1984; Merriam & Caffarella, 1999). Few studies, however, examine the perspective of adults who are involved in a graduate-degree program that incorporates an experiential learning portfolio as part of their program experience (Merriam & Brockett, 1997; Merriam & Caffarella, 1999).

## Purpose of the Study

The aim of this study was to further understand and potentially refine a method of learning and assessment for use in graduate-level learning. In this study I investigated experiential-learning assessment in graduate-level learning to determine the applicability of a model designed by a group from the University of Northern Colorado that served as the framework for the study. Through the application of their model, "Applying Experiential Learning in Teaching Assessment: A Process Model," Jackson and Caffarella (1994) used an interdisciplinary study group to focus on the assessment of

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experiential learning, rather than on the teaching process. The Jackson and Caffarella model emphasizes reflective practice (Schon, 1987) and the compilation of portfolios as an aid to student self-reflection and self-assessment.

## Basic Research Question and Exploratory Questions

The basic research question is: Does the process of developing a portfolio help adult students in a graduate-degree program demonstrate graduate-level learning and competency?

In order to address the basic research question, four exploratory questions guided the study (Figure 1):

1. What are participant perceptions about portfolios as a learning tool in graduate-level learning?

2. According to participants, how does participant self-reflection enhance the learning process?

3. How does the process of portfolio compilation help the participant represent the cumulative learning that has taken place?

4. How does the presentation of a portfolio document reflection-in-action and transitional growth in each participant?

## Need for the Study

Various guidelines for portfolio assessment have been developed in an effort to promote academic quality and integrity for programs using portfolios (Gamson, 1989; Simosko & Associates, 1988; Whitaker, 1989), yet little information exists about the

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participant's perspective of the portfolio experience and its value. Information from this

study may serve to address some of the criticism about the portfolio and its use

EQ 1. What are participant perceptions
about portfolios as a learning tool in graduate
level learning?

EQ 2. How does student
self-reflection enhance
the learning process?

Does the process of developing a portfolio help
adult students in a graduate program demonstrate
graduate-level learning and competency?

EQ 3. How does the process of portfolio
compilation help the student represent
his or her cumulative learning?

EQ 4. How does the presentation of a
portfolio document reflection-in-action and
transitional growth in each participant?

*Figure 1.* The relationship of the exploratory questions (EQ) to the research question.

as an evaluative tool in graduate-degree programs. This information could be an

important step toward ensuring the growth of programs that consider both academic

quality and the rich experiential background of adult learners. The study aims to provide

information for quality improvement, greater accountability, and closer assessment of

programs using a portfolio component.

A number of educators agree that learning is lifelong (Cross, 1981; Gross, 1989).

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One of the major trends in adult learning is the increase in the number of participants stemming from the baby-boom generation in collegiate and non-collegiate education. Studies of this population's learning acquisition in diverse venues and programs can serve to expand the existing practical and theoretical knowledge-base in such areas as how adults learn, adult-education program-design, and instructional/facilitation techniques. Although many studies examine how adults learn and about the role that experience plays in learning, little information exists in the literature from the learner's perspective on the effect that the portfolio-development process and the reflection process can have on learning.

## Definition of Terms

The following terms are defined as used in this dissertation.

**Adult Student:** According to Cross (1981) this is typically an individual 23 years of age or older; single, married, or divorced; often with children; working full-time or part-time; assuming other adult responsibilities in society; and who is also enrolled in an undergraduate or graduate college degree program.

**Case Study:** A qualitative method of inquiry, using multiple data sources, which focuses on an individual or group setting to examine and understand an experience or phenomenon (Berg, 1998).

**Competency:** A combination of skills, abilities, and knowledge needed to perform a specific task (Voorhees, 2001).

**Critical Reflection:** Reflection in which the individual challenges the validity of

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presuppositions in prior or experiential learning. Critical reflection includes reflective observation about the theoretical connections to books, articles, and research as they pertain to the individuals' interpretation of their own experience and the artifacts that represent their experience (Penner, 2002).

**Experiential Learning:** College-level learning acquired outside traditional or nontraditional college programs and sometimes referred to as prior experiential learning in the literature (Whitaker, 1989).

**Learning:** Multi-faceted, multi-dimensional phenomenon in which the learner receives, processes, stores, retrieves, and applies information from a variety of sources and in a variety of settings, resulting in the acquisition of knowledge or skills. Learning is influenced by the individual's cognition and physiological processes as well as by external environmental conditions and influences. Learning takes place in conjunction with the brain's capacity to take in, structure, restructure, store, and retrieve information stimuli (Merriam & Caffarella, 1999).

**Reflection:** The process by which an individual creates and or validates the meaning of his or her observations of what is known to him or her (Mezirow & Associates, 1990). The literature also refers to reflection as reflective observation (Kolb, 1984). Boud, Keogh, and Walker (1985) further define reflection as "a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations. It may take place in isolation or in association with others" (p. 3).

**Reflective Journal:** In this study, the reflective journal is a means of capturing

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the participant's reflection about the process of portfolio compilation (Penner, 2002).

**Reflective Paper**: In this study, the reflective paper represents reflection and critical reflection to document the participant's analysis and insights into the connections between the experiences chronicled in the portfolio, the artifacts within the portfolio, the relationship between theory and practice, and the program competencies.

**Synthesis Paper**: In this study, the synthesis paper is a summary of the participant's experiences in the graduate program in which the participant uses reflection and critical reflection to evaluate his or her development during the course of the program. Synthesis papers vary in content and presentation as they document the participants' personal journeys (Penner, 2002).

## Significance of the Study

This study addresses the utility of reflective practice, self-assessment, and the construction of portfolios as learning tools for students engaged in experiential learning in graduate education and for the assessment of their learning. It demonstrates how each learner brings her or his own previous experiences to bear on the learning process, and how the use of reflection and portfolio development helps learners engage in self-assessment. The study's findings may provide useful information to students, faculty, and administrators who are interested in the use of portfolios and any associated portfolio development processes as a way to express, assess, or document experiential learning at the graduate level.

## Conceptual Framework

Through the basic research question and the exploratory questions that guided the study, I attempted to understand, describe, and explain the research study participants' perspectives of the portfolio phenomenon before, during, and after the development process.

The conceptual framework and significance of the study are introduced in this chapter covering a number of key points including:

1. Adult learning, experiential learning, and issues of academic quality in nontraditional college degree programs lend themselves to the unique characteristics of adult students.

2. Practitioners and researchers in the field of adult graduate-education have noted the lack of research on experiential learning.

3. Greater understanding of the perspective of adults who participate in graduate-level portfolio programs may provide useful guidelines, especially in the area of academic quality, for the design of degree-granting graduate programs with a portfolio component.

4. Data from the study may further the understanding of instructional strategies for graduate-level adult learners. The single-case study method of inquiry using qualitative data collection techniques is introduced as well as a discussion of assumptions, limitations, and delimitations.

Notable among the assumptions made in the justification of the need for this study is that graduate programs will continue to represent an increasing segment of the offerings made by colleges and universities for the foreseeable future, making it critical

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that these programs take into account adult-learner characteristics. Additionally, as this is

a case study with a purposive sample of six adult participants from one university

program, the results of this study are unique and specific to the perspectives of the study

participants and to the university's program and its use of portfolios.

## Assumptions

Several assumptions were made during the course of conducting the study:

1. Graduate-level programs will continue to represent an increasing segment of

offerings by colleges and universities for the foreseeable future.

2. Colleges and universities will continue to develop curricula that use

nontraditional methods to attract and engage adult learners.

3. Nontraditional programs must be of high academic quality while accounting for

the unique characteristics and needs of adult learners.

## Limitations

There are three limitations inherent in this study.

1. While the selected study participants are characteristic of adult graduate

students, they all come from one university's program. There was no intent to generalize

to a larger population on the basis of this study.

2. All study participants who were engaged in the study had already successfully

completed portfolios within the prior 6 years; therefore their recall of the experience

before and after the portfolio development process may have been altered by a time

factor.

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3. I am a student in the program from which all of the participants involved in the study were selected. While my experiences are different from those of the studied program participants, I do have a positive orientation toward the portfolio process.

## Delimitations

There are three key delimitations for this study.

1. All of the study participants were selected from a group who had completed their portfolios after January 1, 1999.

2. All of the study participants have successfully presented their portfolios and received the associated credit awards.

3. Study participants were selected in an effort to give equal rather than proportional consideration to gender and professional background.

## Summary

The purpose of the study is to understand whether and how the process of developing a portfolio helps adult students in a graduate-degree program demonstrate graduate-level learning and competency. Few studies have been conducted to assess the students' perspectives on the learning, benefits, and drawbacks derived from the portfolio experience, particularly in graduate-level adult-learning programs.

The study is divided into five chapters. Chapter 1 identifies the problem, the significance of the problem, and outlines the basic research questions. Chapter 2 is a review of literature encompassing experiential learning, reflective practice, and assessment processes, with a focus given to the literature on the use of portfolios as an

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assessment process. Chapter 3 presents the research methodology and design used for the study. Chapter 4 addresses the data collected from the participants' portfolios, their reflective synthesis papers, and the participant interviews that were conducted as part of the study. Chapter 5 includes the conclusions and implications of the study, including limitations of the research and opportunities for further investigation.

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CHAPTER 2

REVIEW OF THE LITERATURE

**Historical Perspective**

This study describes and explains the perspective of six adult students regarding

the learning that resulted from the process of developing an experiential learning portfolio

as a required part of their graduate program. The theoretical basis for this study originates

in the theory and practice of adult education. The "learning by doing" theory of the

importance of experiential learning can be traced to writings of Aristotle and others. Early

in the 20th century Lindeman (1926) and Dewey (1938) articulated the theory of learning

by doing in adult education literature stating that experience is the key to all genuine

learning.

The literature review focuses on theoretical and empirical research in the

following three areas: (a) adult learning theories, (b) how experiences are transformed

into learning, and (c) assessment theory. These specific focus areas assist in furthering the

understanding developed in previous studies regarding the ways adults learn in general,

and how the development of a portfolio and critical reflection may specifically influence

their knowledge about their professional, personal, and educational lives.

There are five learning theories that can be categorized as classical in origin

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dating from the end of the 19th and the mid-part of the 20th century and four theories, dating from the 1970s to the present, that can be considered to be more current. The five classical theories originated in the field of psychology. They include behaviorist, gestaltist, cognitivist, humanist, and social learning theories (Merriam & Caffarella, 1999; Phillips & Soltis, 1991). The four more recent theories of adult learning reviewed here come from the field of education. They are andragogy, self-directed learning, transformative learning, and situated learning (Merriam & Brockett, 1997). Each one of these very different perspectives sheds light on how learning takes place in adulthood.

## Classical Learning Theories

### Behaviorist

As psychology became a discipline in its own right, separating from philosophy at the end of the 19th century, the behaviorists put forth their theories of learning. Watson, Thorndike, Pavlov, and others developed ideas while conducting studies, largely on animals, to demonstrate the key role that environment plays in knowledge acquisition. They believed that learning was a product of one's environmental influences, could be determined by a change in one's behavior, and was related to the timing and reinforcement of external events (Skinner, 1962).

Skinner's ideas have profoundly affected education. Since environment affects learning, that is, produces behavioral change in a positive or negative direction, it is the teacher's role to create an educational setting that will produce the desired response. Mechanisms such as behavioral objectives, competency-based programs, reinforcement

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and repetition in skills, training and development, and the importance of praise or rewards

to shape behavior and learning were influenced by behaviorist thinking (Skinner, 1962;

Thorndike, 1913).

## Gestaltist

Differing theories challenged the behaviorists' emphasis on the influence of the

environment on the learning process. Wolfgang Kohler, a German gestalt psychologist,

and others such as Kofka and Lewin, believed "learning takes place through an act of

insight" (Kohler, 1957, p. 13). Unlike the behaviorists, the gestaltists believed the

individual, not the environment, controls the learning activity. In the gestaltist

perspective, emphasis was on the learner's ability to discern patterns or meaningful

"wholes" through the senses. Learners possessed an innate mechanism (the nervous

system) to make connections among phenomena. They believed this ability allows insight

to take place and learning to occur (Kohler, 1957).

Gestaltists influenced American educational philosopher John Dewey, who

underscored the importance of the learner in the learning process by using and applying

knowledge through problem solving; the individual is actively engaged in the learning

process (Dewey, 1957). Though Dewey's research focused on children, his ideas on the

importance of activity and experience in the learning process have relevance for adults.

In fact, the recognition of the adult learner's role in the learning process through

application (activity) and experience was noted a decade earlier by adult educator Eduard

Lindeman (1926). Lindeman had a tremendous influence on Malcolm Knowles, who later

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set forth the concepts of andragogy (discussed under more contemporary adult learning theories in this chapter). Knowles identified the unique characteristics of adult students in order to create new, more participatory "methods and techniques to help [adults] learn" through problem solving and hands-on activities (Knowles, 1984, p. 3).

## Cognitivist

Cognitive psychologists further developed the importance of the role of the individual's intellectual processes in learning that was begun by the gestaltists. Foremost among the cognitivists was Jean Piaget, a Swiss psychologist who studied developmental stages in children. Heavily influenced by the behaviorists and the gestaltists, Piaget believed learning took place as a result of the maturation of the individual's internal mental or cognitive structures (schemata) and proposed a four-stage theory of cognitive structural development (Piaget, 1972).

Expanding Piaget's ideas to adults, Levinson (1978), in his widely-read text, *The Seasons of a Man's Life,* studied developmental stages in adult males. More recent research on adult developmental stages by Perry (1981), Kegan (1995), and others emphasized that it is important for educators to be aware of developmental stages when selecting appropriate materials with respect to gender and diversity. According to cognitivist theory, it is important to be aware of the learner's stage of intellectual development. Learners need time to reorganize and build upon their existing mental structures, or schemata, to ensure that cumulative learning takes place. If a learner has not mastered certain fundamental concepts through direct experience, new knowledge

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acquisition cannot take place (Merriam & Caffarella, 1999). Thus the cognitivist theory

recognizes the critical role of experience in the learning process. In addition, schema

theory (the idea of internal structures upon which learning builds) is derived from

cognitive thinking and has influenced the design of instruction and training for adults in

business and industry, education, the military, and other fields (Gagne, Briggs, & Wager,

1992). Cognitive instructional-techniques that have influenced educational instruction

and materials for adults include the use of mind-mapping and clustering (Rico, 1983),

webbing exercises, and the design of tests using particular types of layouts, colors, and

graphics to enhance learning (West, Farmer, & Wolff, 1991).

## Humanist

Another classical approach to learning that included cognitivist thinking and the

importance of the "human potential for growth" (Merriam & Caffarella, 1999, p. 132)

came from the humanists. Early proponents of humanist psychology, Abraham Maslow

and Carl Rogers, noted and underscored the need to examine an individual's affective as

well as cognitive processes in learning. Maslow believed the human motivation to learn is

intrinsic and equated it with psychotherapy because it contributes to a person's mental

health (Maslow, 1987).

Like Maslow, Rogers (1983) described five characteristics of adult learning that

greatly influenced educators of adults:

1. Personal involvement—the affective and cognitive aspects of a person should

be involved in the learning event.

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2. Self initiated—a sense of discovery must come from within.

3. Pervasive—the learning makes a difference in the behavior, attitudes, and perhaps even the personality of the learner.

4. Evaluated by the learner—the learner can best determine whether the experience is meeting a need.

5. Essence is meaning—when experiential learning takes place, its meaning to the learner becomes incorporated into the total experience (p. 20).

Humanistic philosophy has deep roots that can be found in the ideas of Confucius, Greco-Roman philosophers such as Aristotle, and many of those involved in the Italian Renaissance of the 15th century (Elias & Merriam, 1980). Perhaps the best-known adult educator with this orientation toward learning was Malcolm Knowles who was mentioned earlier in this review. Building on the importance of insight and experience for adult learners, Knowles outlined a series of "assumptions" that he called *andragogy*, or the art of helping adults learn (Knowles, 1980, 1984).

## Social Learning

The final classical learning theory explored in this review is social-learning theory. In contrast to all the previous theories that describe the learner as a solo participant in the learning process, social-learning theory underscores the importance of the learner's social context (Phillips & Soltis, 1991). Dewey, Vygotsky, and Bandura are among the leading social-learning theorists. For them, learning takes place not in isolation but in social settings such as the family, workplace, and schools (Dewey, 1938).

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Schemata are less important in the learning process than the imitation of other people's behavior (Bandura, 1970). Bandura moved social-learning theory toward cognitive processes as part of an individual's observation of others and toward the social significance of an individual's interaction in the environment. He has maintained that observation and imitation are two separate acts. One, in fact, could learn vicariously without imitating another's behavior but by "visualizing self-generated consequences" (Bandura, 1970, p. 392).

Social-learning theory has underscored the importance of social interaction, observation of social roles, and mentoring in the learning process (Merriam & Caffarella, 1999). Its influence in adult education can be seen in the use of small groups in the classroom, collaborative learning projects, cooperative-learning approaches, and the sharing of experiences. Additionally, similar to the proponents of more current learning theories such as andragogy, self-directed, and situated learning, the teacher, according to the social-learning theory, becomes a facilitator of learning. The cultural and social context of learning is also recognized as important and influential. In the case of the portfolio, the Merriam and Caffarella study (1999) findings underscore the importance of the social setting of work in learning.

The preceding classical theories serve as the seminal ideas upon which the following contemporary works on learning theory are based.

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## Contemporary Adult Learning Theories

Contemporary theories that explain how adults learn include andragogy, self-directed learning, transformative learning, and situated learning. They all contain elements of classical learning-theories but specifically emphasize the process of learning as it pertains to adults.

## Andragogy

A proponent of andragogy, Malcolm Knowles, first came across the term "andragogy" while talking with a European educator who defined it as "the teaching of adults" in contrast to pedagogy, "the teaching of children" (Knowles, 1984, p. 6). Influenced by Lindeman and Houle as well as by European adult educators, Knowles developed his ideas about andragogy in the 1960s and 1970s (Knowles, 1989). Many of his ideas were rooted in humanistic principles, especially those concerning motivation and self-directed learning. According to this view, teachers become facilitators of learning, and guide the development of the whole person. Learning is grounded in experience and is highly interactive. Additionally, the learner's physical environment and commitment to learning are essential elements of the learning process (Knowles, 1984).

In his work, *Andragogy in Action* (1984), Knowles described what he called an emerging theory of adult learning. In this text, he identified the characteristics of the adult learner and the adult learning environment, citing a number of case studies in educational and corporate settings where andragogical principles were applied. One of Knowles' major tenets in andragogy is the importance of recognizing experience in the teaching and

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learning process. He believed that adults have a greater quantity and quality of experiences than younger students, making it is necessary for educators to consider experience both in the selection of instructional strategies and in the design of programs. According to Knowles, the portfolio, as an instructional strategy, lends itself to the exploration of experience and has become an increasingly recognized component of adult degree programs.

Some critics considered andragogy a "set of assumptions and methods" (Darkenwald & Merriam, 1982, p. 14) rather than a theory of adult learning. Pratt (1988) pointed out that andragogy has been useful in understanding adults as learners, but tells us little about the process of learning in adults. Regardless of this debate, experience is a major assumption "that can arguably lay claim to being viewed as a 'given' in the literature of adult learning" (Brookfield, 1986, p. 98).

<p align="center">Self-directed Learning</p>

A second theory on how adults learn comes from the studies conducted by Tough (1967, 1979), a Canadian educator who was influenced by the ideas of Houle on the initiation of learning projects by adults. In the 1970s, Tough studied types of self-initiated and self-planned learning projects among a sample of 66 adults, taking into account the number of projects per year and the number of hours spent on individual projects (Tough, 1979). The findings of the study indicated that the majority of learning projects were "planned, implemented, and evaluated primarily by the learners themselves, [individuals averaged five projects per year with 100 hours spent on each one] . . . and numerous

<p align="center">20</p>

replications with diverse samples of adult learners have largely supported Tough's conclusion" (Merriam & Brockett, 1997, p. 138).

While verification studies confirmed that involvement in self-directed learning projects is common for the majority of adults, these studies do not support Tough's idea that self-directed learning is a linear process (Spear & Mocker, 1989). In fact, in educational settings, Brookfield (1986, 1991) claimed that self-direction and critical thinking are not automatic processes in adults. Rather, it is the role of the educator to nurture and to empower adult students in these areas.

The implications of this research to understand how adults learn through self-direction are significant. Self-directed learning studies suggest that it is "the most frequent way in which adults choose to learn and there is a strong connection between self-directed learning and self-concept" (Merriam & Brockett, 1997, p. 140). These findings indicate that instructors may need to take self-concept into consideration in designing adult-learning activities.

## Transformative Learning

Transformation theory is a third learning theory that has been explored since the 1970s. Transformation theory was first proposed by Jack Mezirow (1981) and his colleagues at Columbia University Teachers College. Using interviews, Mezirow and his staff studied women students reentering the college environment. Their findings suggested a process of change identified as "perspective transformation" experienced by adults as the result of a disorienting dilemma (Mezirow & Associates, 1990). Though

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other adult educators, through anecdotal data, linked life experiences, learning, and adult development, Mezirow produced one of the few empirical studies of this phenomenon that helped to both create and support transformation theory.

Over the years since the initial study at Columbia University, Mezirow developed his thinking on perspective transformation. Critical theorists, the writings of Paolo Freire, and psychiatrist Robert Gould influenced his ideas (Mezirow, 1996). In 1990 Mezirow called perspective transformation "transformative-learning theory" and defined transformative learning as "the process of learning through critical self-reflection" (Mezirow & Associates, 1990, p. xvi). In subsequent writings, he further elaborated on his theory of adult learning. Referring to transformation theory as a synthesis between objectivists and interpretive paradigms, Mezirow (1996) claimed the adult-learning process involves "critical reflection and discourse in human communication, [resulting in] the transformative potential of our interpretive frames of reference" (p. 158). Similar to Brookfield, Mezirow saw adult education as an emancipatory and empowering process in which perspectives are transformed through critical reflection and expression.

Situated Learning

Situated learning draws on social learning theory and has emerged as a concept of how adults learn. This perspective also emphasizes the need to take into account the influences of culture and social forces on the perspectives of learners (Mezirow, 1996). Also known as "situated cognition" (Merriam & Brockett, 1997, p. 155), this emerging theory proposes that a key factor in understanding individual learning is the socio-cultural

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setting, that is, "recognizing the inextricability of thinking and the context in which it occurs, and exploiting the inherent significance of real-life contexts in learning" (Choi & Hannafin, 1995, p. 53).

Situated learning theorists also emphasize the need for educators to understand the importance of context in learning to incorporate more true-to-life environments for learning—for example, through experiences such as internships and service learning. In learning, considering context is equally important to support the transfer of learning from one context to another (Choi & Hannafin, 1995). The idea of transferability of learning is one of the criteria upon which college credit for experiential-learning portfolios is based. National standards for the assessment of this type of learning assert that college-level experiential learning should have a theoretical as well as an applied component (Whitaker, 1989). Learners should be able to explain the "why's" of what they do or have done and therefore be able to transfer what they do to other settings:

> The common complaint about experiential learners is that they can *do* (in a particular setting), but can't *explain* – because they haven't really mastered the general principles that would allow them to apply their learning to new settings. Experiential learning should be balanced by enough theoretical learning to make it useful college-level learning. A common test is whether the learning is transferable to other contexts than that of the specific learning environment. For example, does the intern in an accounting firm (or a prior learner with "x" years of experience in the firm) know how to balance the books only in that one firm, or only when a particular brand of computer is used? (Whitaker, 1989, pp. 13-14)

Participants in Whitaker's study, who reflected on their learning experiences from one context to another over time, confirmed situated learning ideas. The transferability of

learning from one workplace setting to another was critical to their professional growth and success.

The various theories explored in this dissertation on how adults learn are not exhaustive of adult-learning theory. However, the theories examined were selected for their relevance to operationalizing the study's research question and exploratory questions. Further, the theories on the transformation of experiences to learning that are explored in the next section of this chapter support the findings of the Whitaker study referred to above.

## Experiential Learning

Experiential-learning theories have gained in strength and influence in the arena of educational thought (Boud et al., 1985; Boud & Walker, 1991; Freire, 1970; Jarvis, 1987; Knowles, 1980; Kolb, 1984; Merriam & Brockett, 1997). While many definitions abound of what constitutes experiential learning, Rose (1989) described experiential learning simply as learning that takes place outside the classroom.

David Kolb (1984), in his seminal treatise on experiential learning, defined learning as "a process whereby knowledge is created through the transformation of experience" (p. 38). Kolb described this process of adaptation and transformation through a learning model in a four-stage cycle (Figure 2). The first stage involves the learner engaging in concrete experiences. The next stage allows the learner to use the experience as a basis for reflective observation. From this reflection, the learner moves on to Kolb's third stage, that of building an idea, a generalization, or theory about the experience and

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reflection. The fourth stage, active experimentation, comes as the learner tests the

application of the newly developed theories in order to solve practical problems, and the

cycle continues. The cycle also depicts four different kinds of learning environments,

which in turn demonstrate the learning styles or preferences of the student at each stage of

learning. Kolb claimed, however, that it is from the utilization of all four stages of the

cycle that meaningful learning occurs (Kolb, 1984; Merriam & Brockett, 1997).



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              Concrete
              Experience


Active                              Reflective
Experimentation                     Observation


              Abstract
          Conceptualization
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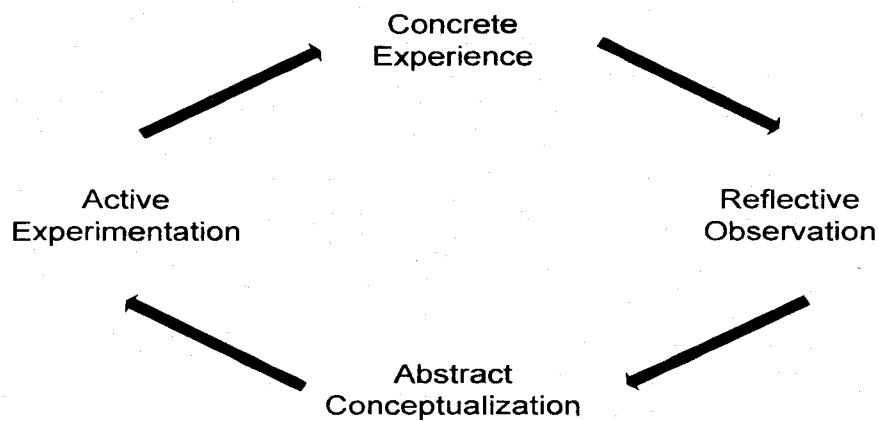
*Figure 2*. Experiential Learning Cycle. From "Toward an Applied Theory of Experiential
Learning" (p. 34), by D. Kolb and R. Fry, in C. Cooper (Ed.), *Theories of Group
Processes,* 1975, London: John Wiley.

The importance of experience as an element of learning is not new to the

educational arena. Merriam and Yang (1996) conducted a study of the relationship

between selected life experiences to developmental outcomes, specifically those of

personal agency, political participation, concern for social inequity, and social-action

participation. They selected seven independent variables: marriage, parenting,

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unemployment, type of employer, work with people, educational attainment, and location. The findings showed that each of the seven variables selected to operationalize life experience was significantly related to one or more of the dependent variables representing developmental outcomes. Merriam and Yang interpreted their findings as a demonstration of the strong connection between life experience, learning, and developmental outcomes.

Boud and Walker further explored experiential learning in the workplace. Boud and Walker's monograph (1991) investigated the complexities of experiential learning and emphasized the roles that previous experience and the intent of the learner had on the outcome of the learning experience. They noted challenges of recognizing and measuring experiential learning, particularly in the workplace:

> Learning from experience is a complex matter. How it happens depends on learners, on the task and on the learning context. Little is generally controlled or readily controllable. We know a great deal about learning in highly controlled settings where there is a task analysis, a curriculum, a trainer and support resources, but relatively little about learning in the messy reality of the workplace. (Boud & Walker, 1991, p. 8)

Boud and Walker (1991) found that the extraordinarily complex nature of experience sheds some light on experience as an interaction between learners and the learning milieu. They concluded that understanding this complexity hinges on recognizing "what learners bring to the situation, and . . . it is the learners' involvement with the event that constitutes the learning experience" (p. 13).

## Process Model for Assessment of Experiential Learning

The need for a clear approach to designing methods of instruction and assessment

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to meet the needs of adult learners who are undertaking experiential learning has become apparent (Lewis & Williams, 1994). As student populations have evolved, educators recognized differences in students' methods of processing information, in their psychological development, and their learning styles (Kolb, 1984). They then questioned the use and effectiveness of traditional methods of instruction and assessment when applied to a diversified student population involved in experiential learning (Brookfield, 1986; Candy, 1991; Jarvis, 1987; Mezirow & Associates, 1990). The Jackson and MacIssac process model (1994) offers such a framework for examining experiential learning (see Figure 3).

Five components comprise the model: (a) the characteristics and needs of the adult learner, (b) the conceptual foundations of experiential learning, (c) methods and techniques for engaging learners in experiential learning, (d) assessment processes and outcomes involved in building a folio, and (e) assessment processes and outcomes involved in constructing a portfolio.

In the first component of the model (see Figure 3), the characteristics and needs of the adult learners center on the role of experience and prior knowledge (Kidd, 1973) and on the differences in processes of learning (Caffarella & Barnett, 1994). The model also addresses the active involvement of students in the learning process, the affiliation needs of the learners, and the context of their adult lives.

The second component of the model (see Figure 3), conceptual foundations, delineates the definitions of knowledge, as used in experiential learning, the elements of cognition, and the constructivist approach to teaching.

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McKenzie (1991) described constructivism as the way in which we each make or construct meaning in our lives thereby creating our own particular worldview. Candy (1989) stated that constructivist teaching "allows a learner to make sense out of the perplexing variety and constantly changing texture of their experiences" (p. 98). In a more complete explanation of his theory of constructivism, Candy (1989) explained:

> Teaching is not a process of transmitting knowledge intact to learners, but a matter of negotiating meanings. Learning was asserted to be an active process of *constructing* a system of meanings, and then using these to *construe* or interpret events, ideas or circumstances. (Candy, 1989, pp. 111-112)

The conceptual foundation component of the process model also employs Schon's theory of reflective practice as a way in which "people use experience, intuition, and trial-and-error thinking to define, solve, or rethink a particular problem or dilemma they may be facing or have faced" (Caffarella & Barnett, 1994, p. 38).

In the third component of the model (see Figure 3), Lee and Caffarella (1994) discussed guideposts for experiential learning activities, as well as the design of classroom or field-based experiences. Brookfield (1986) saw self-directed learning "as the mode of learning characteristics of an adult who is in the process of realizing that his or her adulthood is concerned as much with an internal change of consciousness as with the external management of instructional events" (p. 58).

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Characteristics and Needs of
Adult Learners

Role of experience and prior knowledge
Difference in the process of learning
Active involvement in learning process
Affiliation needs of learner
Context of adult lives

Conceptual Foundations of
Experiential Learning

Definitions of knowledge
Elements of cognition
Constructivist teaching
Reflective practice

Methods and Techniques for Engaging Learners in
Experiential Learning Activities

Design of in-class experiments
Design of field-based experiments
Coordination and integration of in-class and in-field experiences

Assessment Processes and Outcomes:
Building a Folio
(Point-in-time performance assessment)

Artifacts
(Artistic material, budgets,
lesson plans, resumes)

Attestations
(Honors, letters of
recommendation, job
performance evaluations)

Assessment Process and Outcomes:
Portfolio Construction
(Assessing transactional learning)

Self-assessment and self-reflection
Assessing learner progress in a program
Self presentation to external sources

*Figure 3.* Applying experiential learning in teaching and assessment: A process model. From "Introduction to a New Approach in Experiential Learning," by L. Jackson and D. MacIsaac, 1994, *New Directions for Adult and Continuing Education, 62,* 20.

Merriam and Caffarella (1999) also addressed the importance to adult learners of self-directed learning. They defined it as "a form of study in which learners have the primary responsibility for planning, carrying out, and evaluating their own learning experiences" (p. 41).

The final two components of the process model (see figure 3) include assessing processes and outcomes, as well as building a folio from which a portfolio is later constructed (Barnett & Lee, 1994; MacIsaac & Jackson, 1994). Barnett and Lee (1994) described a folio as "a compilation of the products, materials, and activities adults accumulate as a result of their learning experience" (p. 55), and they discussed how a portfolio is developed by the selection of materials amassed in a folio. MacIsaac and Jackson (1994) discussed the assessment functions that portfolios can fulfill. These include: "a portfolio for self-assessment or reflection on personal growth: portfolios that facilitate progress assessment within an educational program for adults, and portfolios that enhance self-presentation to external sources" (p. 67). The external sources might include the use of portfolios for job interviews.

MacIsaac and Jackson (1994) stated that a portfolio can be used to show signs of the learner's cumulative learning and transitional growth. They stated that

> portfolios portray cumulative learning; that is, the set of artifacts, reproductions and attestations that are included in a portfolio give evidence to the evolving and expanding knowledge base and can be used as evidence of transitional change, which is the movement of a student from a beginning point to an ending point, where the student presents evidence of new knowledge and personal growth. (MacIsaac & Jackson, 1994, p. 68)

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This dissertation explores elements of all five components of the Jackson and Caffarella process model and focuses on two of the ideas presented in the process model (see Figure 3). These are (a) the use of reflective practice including self-reflection, addressed in the conceptual foundations of experiential learning and assessing transitional change and cumulative learning, and (b) the use of portfolios, as described by MacIsaac and Jackson (1994), for self-assessment and progress assessment. The following sections develop these ideas more fully. While Jackson and Caffarella (1994) offered suggestions for the use of the process model in higher education, teacher education, and in the workplace, a thorough literature review did not result in evidence of research that applied this model to graduate-level learning.

## Reflective Practice

Many educators, including Jarvis (1999), Kolb (1984), Mezirow & Associates (1990), Schon (1983, 1987), and Tremmel (1993) have addressed the importance of reflection as a fundamental component of knowledge. Schon's theory of "knowing-in-action" and "reflection-in-action" (Cervero, 1988; Schon, 1983, 1987) articulated the use of reflection as a way of developing "reflective practitioners" and improving the understanding of professional practice. Schon's theory serves as a central component of the process model discussed earlier.

In his discussion of reflective practice, Donald Schon (1983, 1987) contended that the Enlightenment, the scientific movement dating back to the 18th century, influenced the way modern society views acquisition of professional knowledge and skills. He described

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the 20th-century approach to developing professionalism in people as that of "Technical Rationality," in which it was assumed that one developed one's professional expertise by following a number of prescribed steps. To this end, the function of the professional school became "the transmission to its students of the generalized and systematic knowledge that is the basis of professional performance" (Hughes, 1983, p. 37).

Schon (1983) developed an alternative approach to professionalism, wherein he posited that professionals possess tacit knowledge, which he refers to as "knowledge-in-action." This tacit knowledge comes from recognizing the phenomena of the profession and from the professionals being able to apply that knowledge through actions. Schon called it "the characteristic mode of ordinary practical knowledge" (p. 54). He further stated that professionals often do not have specific answers to problems, but are capable of "thinking on their feet" to find the right solutions. Schon termed this "reflection-in-action," that he maintained is central to the art, rather than mere science, of professionalism. From these reflections-in-action, reflective practice is established and provides the basis upon which, in turn, the theory, practice, and art of the profession is built (Schon, 1983, 1987).

In the development of his theory, Schon (1987) saw the need for a revision of how professional education is carried out: "Professional education should be redesigned to combine the teaching of applied science with coaching in the artistry of reflection-in-action" (p. xii). A decade later, Boud and Walker (1998) reported that "over the past ten years or so, we have seen the translation of ideas of reflection and reflective practice into courses and [programs] for the initial training and continuing education of a wide variety

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of practitioners" (p. 192). They voiced concern, however, over the ways in which reflection and reflective practice were being used by instructors, having found "examples of poor educational practice being implemented under the guise and rhetoric of reflection" (p. 192)

Several studies have used Schon's model of reflection-in-action. In one such study, Ferry and Ross-Gordon (1998) focused on the use of reflection-in-action by adult educators. They found that both novice and experienced educators developed expertise through the use of reflection-in-action and reflection-on-action. They also found, however, that "the presence of experienced educators exhibiting minimal reflection and the presence of one highly reflective novice indicates that experience alone is not the 'master teacher' of the reflective process" (p. 98).

Schon (1987) described the steps involved in identifying the process of reflection-in-action as follows:

1. recognition of the problem

2. recognition of incongruities

3. evidence of reframing of the problem

4. generation of new solutions

5. testing in action of solutions

6. evaluation of outcomes (Schon, 1987, p. 102).

In this study, Schon used these steps as a guide to determine whether or not students exhibit signs of reflection-in-action during the course of their practicum experiences.

Brookfield asserted that critical reflection is not synonymous with transformative

learning (Mezirow, 2000). Reflection most often relies only on learning from experience

and not on an in-depth transformation process (Cranton, 1996; Munoz-Chrobak, 2001).

Brookfield (1986) defines critical reflection as "reflecting on the assumptions underlying

ours and others' ideas and actions, and contemplating alternative ways of thinking and

living" (p. 87). This type of reflection requires being self-aware (Wilson & Hayes, 2000),

making sense of experience (Garrison, 1992), deconstructing and reconstructing meaning

in life, critique of premises and ideologies (Brookfield, as cited in Mezirow & Associates,

2000), and principled thinking (Mezirow, 1998). Mezirow (Mezirow & Associates, 1990)

states:

> [Critical reflection] addresses the question of the justification for the very
> premises on which problems are posed or defined in the first place. We
> very commonly check our prior learning to confirm that we correctly
> proceeded to solve problems, but becoming critically aware of our own
> presuppositions involves challenging our established and habitual patterns
> of expectation, the meaning perspectives with which we have made sense
> of our encounters with the world, others, and ourselves. (p. 12)

Critical reflection focuses on emancipation and autonomy of the learner to gain

better control of rapid change in the environment connected to their private lives and to

public issues (Brookfield, 1991). One study proposes that critical reflection practiced by

educators results in personal growth, increased professionalism, increased democracy and

justice in the learning environment, increased appreciation for complexities of teaching,

better meeting the needs of diverse learners, and increased collaboration among educators

(Munoz-Chrobak, 2001).

The practice of critical reflection requires a community of peers, uncovers

commonly held and possibly false assumptions, and is dependent on context and personal

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experiences. This type of reflection is social action that includes imagining and exploring

alternatives to current assumptions. Those who reflect critically are self-aware and often

become more skeptical of the world around them. Brookfield's phases for successful

critical reflection include:

1. Trigger event

2. Appraisal of assumptions

3. Exploration of alternatives to current assumptions

4. Developing alternative perspectives

5. Integration of new perspectives into daily life (Brookfield, 1991).

## Assessment of Learning

Palomba and Banta (1999) defined assessment as "the systematic collection,

review, and use of information about educational programs undertaken for the purpose of

improving student learning and development" (p. 4). They advocated a view of

assessment that "provide[s] students an opportunity to learn from the activities in which

they engage" (p. 336).

Wiggins (1990) defined and contrasted authentic assessment with traditional

assessment,

> Assessment is authentic when we directly examine student performance on worthy
> intellectual tasks. Traditional assessment, by contrast, relies on indirect or proxy
> "items"–efficient, simplistic substitutes from which we think valid inferences can
> be made about the student's performance at those valued challenges. (¶ 1)

Case (1992) categorized authentic assessment into three types of assessment including

performance assessment, naturalistic assessment, and portfolio assessment:

> Performance assessment is the person's ability to use ideas either by

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completing a complex task or by producing an object. . . . Naturalistic
assessment occurs when someone else gathers information about a
person's normal work activities by observing his or her performance,
gathering documents, or talking to other people about the person's
accomplishments. . . . Portfolio assessment consists of individuals
compiling a collection of materials documenting their learning experiences
over a substantial period of time. (p. 16)

There are a number of other definitions for these types of assessment. Portfolio

assessment, as a method that can also include performance and naturalistic assessment,

has come to be widely used in adult learning (Barnett & Lee, 1994).

Authentic assessment and performance assessment are sometimes labeled as

alternative assessment. All of the terms have as a common denominator two

characteristics: "First, all are viewed as alternatives to traditional multiple-choice,

standardized achievement tests; second, all refer to direct examination of student

performance on significant tasks that are relevant to life outside of school" (Worthen,

1993, p. 445). That alternative or authentic assessment emerged in the 1990s as a

valuable approach to educational evaluation is evidenced by the body of research on the

subject (Bol, Stephenson, O'Connell, & Nunnery, 1998; Madaus & Kellaghan, 1993;

Maeroff, 1991; Meyer, 1992; Worthen, 1993).

### Portfolio Assessment

A review of the literature reveals a great deal of research on the use of portfolios

in the K-12 levels of the educational system, with more literature about their use in adult

education and undergraduate education, with less research focused on portfolio use in

graduate education (Abruscato, 1993; Mills & Reisetter, 1995; D. Wolf, 1989; K. Wolf,

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1991).

Many of the studies that describe portfolio usage in graduate education tend to be connected to teacher education, where the assessment technique is taught with a dual purpose in mind. The first is to educate professionals to use portfolios for their own assessment, while the second purpose helps to train them to use portfolios with their students (K. Wolf, 1991). In a 4-year study at Stanford University designed to explore new approaches to teacher evaluation, teachers used portfolios to document their own work. K. Wolf found that portfolios "can give teachers a purpose and framework for preserving and sharing their work, provide for occasions for mentoring and collegial interactions, and stimulate teachers to reflect on their own work and on the act of teaching" (p. 136).

Mills and Reisetter (1995) described their experiences with authentic assessment through the use of portfolios in graduate classes in the field of education. They discussed their failures and successes and the need to achieve a delicate balance between educating graduate students in what materials may be included in the portfolio, when to prescribe materials to be included, and how to encourage students to be creative in their own selection of materials. MacIsaac and Jackson (1994) also discussed the idea of balance between prescribed material and the free choice of inclusions. They advised:

> Although learners should be permitted great flexibility in constructing their portfolios so that their unique voices are heard, the portfolio process and its products must be configured in a manner that enhances the way information is communicated to portfolio users. (p. 65)

Further, the authors explained that structured or required materials make it easier for adult

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learners to substantiate the learning that has taken place, showing competencies gained in cumulative learning and demonstrating personal growth and change.

## Experience and Learning

As discussed throughout this chapter, scholars have emphasized the connection between experiences and learning (Kidd, 1973; Knowles, 1980, 1984, 1989; Kolb, 1984; Merriam & Cafferella, 1999). Lindeman (1926) declared that learning does not end when one reaches adulthood; the whole of life is a learning process. Kidd (1973) echoed Lindeman's observation when he declared, "All life is for learning" (p. 10). While there are many learning theories that support the critical role played by experience in the adult learning process, there have been a limited number of empirical studies on the relationship between experience and learning in adults and even fewer on how experiences are transformed to learning (Merriam & Brockett, 1997).

Mezirow's (Mezirow & Associates, 1990) study of women reentering college in the 1970s established a relationship between reflection on experiences and learning. Several more recent studies focused on the relationship between the specific experience of college and that of students' learning. Pascarella and Terenzini (1991) and Kuh (1993) conducted quantitative and qualitative studies, respectively, on both traditional-age and adult college students. The purpose of these studies was to determine the impact of the college experience on the growth and learning of students of all ages. The findings suggested that the college experience increased all students' verbal, quantitative, and

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subject matter learning regardless of how old they were. College also promoted changes in self-concept, self-esteem, moral development, attitude, and values (Kuh, 1993).

In a subsequent study, Graham and Donaldson (1996) conducted an analytical review to assess adult students' learning and the college experience. They analyzed the responses of both adult and traditional-age students to compare degrees of growth for each population experience in college. They used existing data from the College Outcomes Survey (COS) developed by the American College Testing Program Proficiency Examination Program (ACT PEP). Their findings indicated that adult learners, similar to traditional-age students, "found the greatest gains in obtaining academic competency, intellectual curiosity, a well-rounded education, increased self-confidence, long term goals and values, perseverance, and abilities to change and learn new things" (Graham & Donaldson, 1996, p. 18). While their study did not indicate whether portfolio development was undertaken by these adults, it would be interesting to know if any of the adult respondents had developed a portfolio as part of their degree program. I took the findings from these studies into account in the interpretative analysis of the research data in chapter 4.

Merriam and Yang's (1996) quantitative study related the value of selected life experiences (including work, marriage, parenting, and educational attainment) as well as learning and development in adulthood. This longitudinal study, which repeatedly surveyed adult development outcomes and life experiences, spanned 20 years, and indicated "support for the connection between life experience, learning and developmental outcomes" (p. 62). Developmental outcomes represented an individual's

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growth in two major areas: (a) personal agency or locus of control and (b) socio-political activity. The study's findings included support for the premise that work has a strong impact on one's worldview and perspective. Merriam and Yang explained this in their discussion of the findings: "Taken as a group, the three employment-related variables, type of employer, work with people, and period of employment underscore the idea that one's work can shape certain developmental outcomes" (p. 77).

Another quantitative study that was concerned with an aspect of adult experiential learning was conducted by Conti and Fellenz (1991), who administered the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) to measure adult learning strategies in actual-life learning scenarios. SKILLS presented 12 situations to which adults' responses revealed a number of types and levels of learning. The answer to each scenario explores the likelihood of using various strategies for responding to the learning problem. The scenarios and responses indicated the relationship between experiences and five aspects of learning process that included critical thinking and meta-cognition. The instrument was initially tested on 253 adults with good reliability: construct validity and criterion-related validity. The researchers commented that the instrument needed further refinements in order to help adults think about how they learn.

Experiential learning in adults was the subject of a study by Merriam and Clark (1993). In their study they surveyed 405 adults and interviewed 19 of the study participants. The survey and interviews showed that most learning was gained through experiences, not in formal academic settings. The findings also indicated that in order for

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experiential learning to be significant, it must expand the learner's skills and be valued by the learner or cause transformation.

## Autobiography and Learning

With the increase of qualitative research since 1990, educators of adults have used empirical research to examine the relationship between autobiography, experiential learning, and knowledge acquisition. While there are a limited number of studies in the area of autobiography, the research that does exist suggests a strong connection between experiences and learning through autobiographical expression. Many of the connections between autobiography and learning find their roots in concepts described by anthropologists and sociologists (Mezirow, 1996).

Those who teach in higher education have primarily conducted studies on the relationship between autobiography and learning. They used qualitative methods of inquiry to describe, explain, and understand this relationship. For example, McCallister (1996) found that the teacher-researchers' autobiography served as an important link between these dual roles. Using the case study approach to describe one class of college students and their professor's method of instruction, the researcher found the need to understand her own position in relation to the study in order to make judgments and respond to students' needs. Autobiography became the connection between theory and practice, allowing the researchers to make sense of the research experience.

Trapedo-Dworsky and Cole (1996) further underscored the link between autobiography, learning, research and teaching. They emphasized the need for self-

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reflection through autobiography. The authors asserted that this form of self-study could better prepare the teacher-researcher to evaluate personal pedagogy and the needs of students. Shirk (1996) also investigated the influence of autobiography on adults. His study included interviews with 191 adults from a variety of educational and socioeconomic backgrounds. Shirk found in these oral autobiographies that all participants attempted to use their prior experiences to make sense of positive and negative life challenges.

Nelson's (1994) research indicated that the use of autobiography is a powerful tool to study adult transformation; however, he warned that it raises a number of political and ethical issues and concerns about qualitative methods through which participants may reveal sensitive and personal information. Even given these caveats, his study emphasized the usefulness of recreating one's life story for both student and teacher as researcher.

## Summary

This chapter introduced the conceptual framework that underpins the study (see Figure 2). Theories on how adults learn differ substantially from one another in their explanation of the learning process. No single theory adequately explains the depth and breadth of the learning process. While consensus does not exist on a comprehensive theory concerning learning in adulthood, there does appear to be a general consensus among researchers that adults learn in ways that often differ from traditional pedagogy. Proponents of andragogy and self-directed learning advocate a focus on the importance of the individual's internal and external experiences in the learning process. Transformative-

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learning theory and situated-learning theories emphasize both the roles of critical reflection and discourse and the social and cultural perspectives of the learner.

One theme that appears throughout all of the theories examined herein is the importance of the adult learner's experiences in the learning process. Whether learning occurs through:

1. observation or imitation within the social setting

2. whether it comes about through reinforcement, insight, and discovery

3. whether it must have "meaning" to be internalized and lasting

4. whether learning gives life meaning or changes internal thinking and/or external behavior

5. whether it motivates the learner to learn more or whether it occurs in negative or positive circumstances

6. whether learning is transformative and emancipatory or actually is embedded in situations, the theoretical review of related literature indicates a common theme that learning and experience are inextricably connected (Boud & Walker, 1998).

There are fewer empirical studies on the ways adults learn and the roles of experience in learning than there are theories that support these concepts. The studies that do exist support the connection between experience and learning in life's various domains. Likewise, studies on the impact of autobiography and learning in adults overwhelmingly indicate a relationship between autobiographical development and the augmentation of certain types of knowledge. With regard to the academic quality of degrees that include an experiential learning portfolio, such studies are limited in spite of

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the large number of college programs that include portfolio programs. Studies have

revealed mixed results with no consensus on the issue. Further research in this area

appears to be warranted regarding nontraditional college-degree programs.

The literature review frames the basic research question of this study: Does the

process of developing a portfolio help adult students in a graduate-degree program

demonstrate graduate-level learning and competency? The findings of other researchers

help guide the study's collection of data and contribute to the interpretive analysis.

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CHAPTER 3

METHODOLOGY

## Overview of the Study

The study examined the impact of portfolios as a method of learning and

assessment in graduate-level education. This chapter begins with an overview of the

setting of the study, including a review of the research questions and a general description

of the program selected for the study. This chapter also contains the research design with

a description of sampling strategies, data-collection strategies, and the method of data

analysis.

## Setting for the Study

This study sought the reflections and analyses of graduate-program participants in

a doctoral program in order to evaluate the efficacy of using portfolio development and

assessment as a way of evaluating the graduate-level learning of the participants in that

program. The graduate program selected for the study is located at a religiously affiliated,

fully accredited, Carnegie Category II, research university located in the midwestern

United States. The graduate program is multi-disciplinary, and its participants come from

throughout the United States and around the world.

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## Basic Research Question and Exploratory Questions

The basic research question is this: Does the process of developing a portfolio help adult students in a graduate degree program demonstrate graduate-level learning and competency? Or, in other words, can experiential learning take place through the development of a portfolio that includes a process of reflection?

In order to address the basic research question, four exploratory questions guided the study as illustrated in Figure 4.

1. What are participant perceptions about portfolios as a learning tool in graduate-level learning?

2. According to participants, how does participant self-reflection enhance the learning process?

3. How does the process of portfolio compilation help participants to represent the cumulative learning that has taken place?

4. How does the presentation of a portfolio document reflection-in-action and transitional growth in each participant?

The first exploratory question gathers information regarding the participants' expectations, experiences, and views regarding portfolio development. This first question operationalizes Barnett and Lee's (1994) construct that "a portfolio consists of a large array of products, materials, and other evidence of activities and experiences learners accumulate as they participate in different learning situations" (p. 57).

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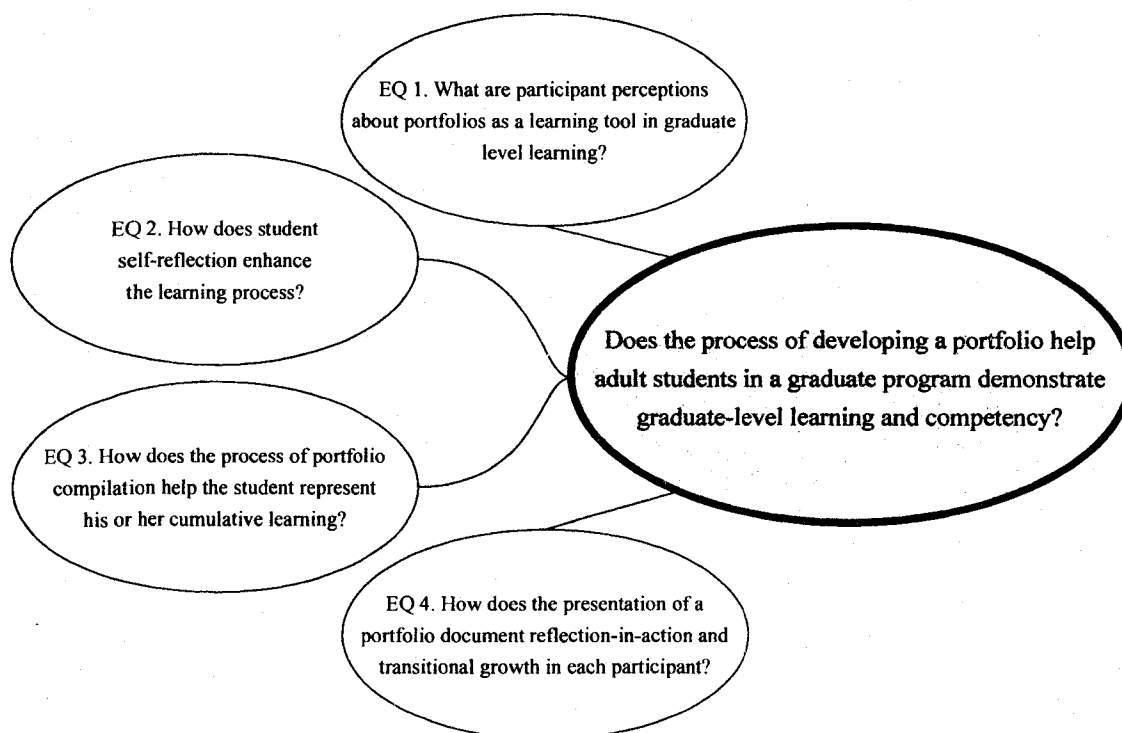
*Figure 4.* The relationship of the paraphrased exploratory questions to the research question.

The second and third questions explore the participants' views of the role and significance of compiling the portfolio, as well as reflection, in the portfolio development and learning process. These questions operationalize the construct, "The process of developing a portfolio is as significant as the final product, in that through its construction learners have the opportunity to reflect on their learning as well as their professional and personal development" (MacIsaac & Jackson, 1994, p. 67). The fourth question seeks to measure whether, and if so how, the presentation of the portfolio contributes to synthesis.

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From the exploratory questions flowed the interview-question development. The interview questions were constructed as open-ended questions. The open-ended structure of the questions, the overlapping nature of the interview questions, and in some cases, a single interview question may have contributed evidence for multiple exploratory questions as described below in the section on interviews.

## Program Description

The graduate program studied requires a portfolio as well as a dissertation as integral elements of the assessment. The role of the portfolio in the program is as a peer, faculty, and self-assessment process that results in a collection of carefully chosen items to portray the development of a student's competency.

## Design of the Study

This single case study used qualitative data-gathering techniques as the primary data-gathering methods. This entailed using individual interviews with program participants and a document review of their completed portfolios and reflective synthesis papers. Research field notes and a research journal expanded the data sources and aided in the analysis. The University's Institutional Review Board (IRB) approved the process in advance of data collection.

I based my choice of a qualitative approach for this study on several factors. First and foremost, the purpose of the study was to examine the impact of using portfolios as an assessment tool in graduate-level learning. The qualitative approach allowed me to increase the understanding of and to present the complexities of the social setting (Berg,

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1998; Janesick, 1998). As part of the qualitative approach, I explored the portfolio process from the "study participants' view" (Creswell, 2003). Janesick (1994) noted that qualitative research seeks meaning and perspective from the participants in the study. I was able to delineate the unique viewpoint of participants who have been engaged in portfolio development, which gives expression to their perspective through their own words and written reflections.

Second, answering the exploratory questions that guided the study necessitated a qualitative design. In order to fully understand individuals' perceptions of the portfolio experience and the subsequent types of learning that take place as a result of this process, it was essential to review the students' portfolios and gather information through in-depth interviews. The portfolio is, in essence, a qualitative document reflecting the professional and personal experiences of each participant. Therefore, his or her experience, feelings, and attitudes about the process are expressed through qualitative methods of inquiry in this study.

Third, flexibility was a primary aim of the data-collection process. As Patton (1990) pointed out, qualitative research demands a design flexibility that adapts to the needs of the study as it progresses. Qualitative research is both inductive and holistic, taking into account the social and cultural context of the participants. In this study I interviewed males and females, representing different occupational groups. By using qualitative data-collection methods, I was able to justifiably adapt the semi-structured interview questions, to acknowledge the uniqueness of the participants, and to maintain the focus of the study.

Fourth and finally, owing to the dearth of information in the literature on adult students' experiences with the portfolio as an instructional and assessment strategy in a graduate program, I sought to augment the knowledge base in this area by using a descriptive, narrative style of expression with which I have experience from professional and educational pursuits. Creswell (2003) confirms such an approach as appropriate for qualitative researchers who "need to provide a detailed view . . . and [have] interest in writing in a literary style" (p. 16).

## Case Study

I combined a single-case study with qualitative data-collection techniques to discover the participants' experiences in portfolio development. Focusing on a case with specific boundaries allowed me to take an in-depth look at a particular group and program (Merriam & Simpson, 1995). The case in this study consisted of six adult students who developed a portfolio in a graduate-degree program. I used this design, as suggested by Yin (1989) and others, to target one particular group of adult students who had completed the portfolio-development process.

Creswell (2003) points out that the case study is a "bounded system . . . bounded by time and place [focusing on] a program, an event, an activity, or individuals" (p. 61). The benefits of using a case study in this research were that it allowed for the evaluation of individual student outcomes in the program studied (Patton, 1990). Consequently the study generated both theoretical and practical information for educational research. Further, this method of inquiry enabled the participants to present their views on the

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portfolio-development process; that is, they had the opportunity to describe and explain the meaning they derived from the experience. Stake (1995) summarized the nature of the case study in this way: "The case, in some ways, has a unique life. It is something that we do not sufficiently understand and want to—therefore, we do a case study" (p. 133).

Donmoyer (1990) discussed the value of the "lessons learned" from single-case studies. He argued that we often learn from the experiences of others, either through transfer or vicariously, because "we do not have to learn everything firsthand" (p. 202). Donmoyer speaks of the impact that Arthur Miller's *Death of a Salesman* had on him:

> Though the Willy Loman on stage and the adolescent who sat in the darkened theatre had little in common, I learned a great deal about myself that night. Despite the many differences between Miller's aging salesman and the adolescent who watched him—or possibly because of these differences—something, which in ordinary parlance could be called generalization, occurred. (p. 86)

Thus this study of adult students in a specific program and university can also serve as a source for learning beyond the boundaries of the single case.

## Data-Gathering Techniques

I used a variety of methods to describe and explain the experiences of the six participants who developed portfolios as assessment tools. Specifically I conducted in-depth one-on-one interviews, reviewed participants' portfolios and synthesis papers, compiled field notes, and kept a reflective journal. Wolcott (1990) underscored the value of such techniques for descriptive purposes when researching a problem or a setting. All of these techniques are well suited to the "intensive description and analysis of a phenomenon or social unit" of the case study (Merriam & Simpson, 1995, p. 108).

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Interviews

The interview is an accepted practice as a qualitative research strategy (Berg,

1998; Eisner, 1998; Kvale, 1996; Merriam & Simpson, 1995; Strauss & Corbin, 1997).

Interviews are a "rich source of information to help [one] understand what's going on"

(Eisner, 1998, p. 82). The purpose of this study is to describe and explain the use of an

experiential-learning portfolio in graduate programs; therefore interviews were a primary

data-collection technique to achieve that end. In this study I used individual interviews to

capture each participant's perspective through conversation (Berg, 1998). As Kvale

(1996) pointed out:

> The qualitative research interview is a construction site for knowledge.
> An interview is literally an *inter view,* an interchange of views between
> two persons conversing about a theme of mutual interest. . . . The purpose
> of the qualitative research interview . . . is to obtain descriptions of the
> lived world of the interviewees with respect to interpretations of meaning
> of the described phenomenon. (pp. 14, 30)

Discussions about a number of different types of interviews appeared in the

literature. Semi-structured interviews with open-ended questions elicited information

from each participant about the portfolio development process and allowed for the

emergence of a variety of ideas and feelings. I conducted the interviews by telephone or

by e-mail. For the telephone interviews I obtained consent from the participant to record

the interviews. The telephone interview recordings were transcribed verbatim and served

as a key data source. Additionally, I wrote field notes during and after the interviews and

analyzed the content of the interviews. In addition, I kept a reflective journal to aid in the

analysis.

With regard to ethics, Kvale (1996) discusses guidelines that I followed in the interview process. He discusses seven stages in interviewing: "thematizing, designing, interview situation, transcription, analysis, verification and reporting" (p. 14) and attached ethical considerations to each one. I designed the inquiries "with regard to improvement of the human situation investigated" (p. 111) and to advance the field of knowledge in this area. Issues of informed consent and identity protection were addressed in the study design. Interview sessions were conducted with the participants' well-being as the primary consideration. Confidentiality and consequences in the areas of transcription, analysis, verification, and reporting were also taken into account, keeping in mind my commitment to give the highest respect to each participant in the study.

The interviews in this study served as critical information points. In his seminal work, *The Art of the Case Study,* Stake (1995) comments on the use of interviews in case studies:

> Much of what we cannot observe for ourselves has been or is being observed by others. Two principal uses of case study are to obtain the descriptions and interpretations of others. The case will not be seen the same by everyone. Qualitative researchers take pride in discovering and portraying the multiple views of the case. The interview is the main road to multiple realities. (p. 64)

As noted earlier, I conducted semi-structured interviews to cover the topic of the portfolio experience as well as to allow for natural, free-flowing responses. The types of interview questions include those described by Janesick (1998): "1. Basic descriptive questions, 2. follow-up questions, 3. experience/example questions, 4. simple clarification questions, 5. structural/paradigmatic questions, and 6. comparison/contrast

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questions" (pp. 30-31). My approach to the interview process corresponded with Janesick's definition of interviewing as "two people talking [communicating] and jointly constructing meaning about a particular topic" (p. 30). I asked open-ended questions to obtain the participants' experiences with the portfolio process. In order to confirm the interview data, I clarified responses for meaning during the interview sessions with each interviewee and, after the interviews, through review of the verbatim transcripts of the participants.

<div align="center">Document Review</div>

Document review is also an accepted practice in qualitative studies (Berg, 1998; Gay, 1996; Merriam & Simpson, 1995). The review and analysis of the participants' written reflections of learning from their experience added another source of data describing and explaining the participants' perspectives on learning through the portfolio process. Document review took place before the first interview in order to gain an initial understanding of the participants' perspectives. Eisner (1998) stated that documents are "an important source of information" (p. 184), often uncovering information not revealed in interviews. A document such as a portfolio is subjective by its very nature, because of its autobiographical content. Berg (1998) commented that this enhances its value as a data-collection technique in a case study because it "provides information and insight about the subject that might not be captured through some other data-collection technique" (p. 216).

<div align="center">54</div>

When reviewing documents, as with interviewing study participants, Stake (1995) stated that "one needs to have one's mind organized, yet be open for unexpected clues" (p. 68). I remained open-minded while maintaining an organized detail orientation to facilitate the analysis of the portfolio documents as information emerged from the data.

I observed ethical considerations in the document review, as in the interviews, and treated all information in the individual portfolios as confidential data. Participants were given fictitious names to protect their identity. In this stage, and in every portion of the study, from initial interviewing through reporting, I protected participant identity. For purposes of academic integrity and validation of the data, the chair of my dissertation committee can verify the sources of the study as well as authenticity of data gathering and analysis.

## Field Notes and Researcher's Reflective Journal

Other data and analysis points for this case study were field notes and a researcher's reflective journal. The use of field notes allowed the development, interpretation, and analysis of meaning of the study to arise from the data on an immediate and ongoing basis rather than establishing it ahead of time. Stake (1995) explained the paradoxical nature of case-study field notes and fieldwork for qualitative researchers:

> Clearly, in designing our studies, we qualitative researchers do not confine interpretation to the identification of variables and the development of instruments before data gathering and to analysis and interpretation for the report. Rather, we emphasize placing an interpreter in the field to observe the workings of the case, one who records objectively what is happening but simultaneously examines its meaning and redirects observation to refine or substantiate those meanings. (pp. 8- 9)

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Patton (1990) agreed that field notes are an important data-gathering technique in case studies and must be "descriptive, concrete and detailed" (p. 241). This was an important feature of the case study with its emphasis on a descriptive, narrative style of presentation. The field notes taken before and after the interviews were useful in triangulating data sources. In addition to field notes, I kept a reflective researcher's journal to aid with data analysis. This enhanced the analysis of the data, as Janesick (1991) explained:

> A designated writing time is suggested each day so that the researcher puts in writing all the thoughts of the day related to the design, implementation, problems, and joys of the study. By keeping a written record of each step and corresponding reflections, the researcher keeps track of how the study developed and this is often valuable during final analysis of the data. (p. 116)

Eisner (1998) concurred with Janesick on the researcher's use of a personal journal in qualitative research studies:

> In the kind of work described in this book [*The Enlightened Eye*], personal biography is one of the tools researchers work with; it is the major instrument through which meaning is made and interpretation is expressed. It is not interference; it is a necessity. (p. 193)

Sampling Strategy

A purposive-sampling design was used in order to facilitate a qualitative, in-depth study of a few rather than a large number of subjects. Further, a particular strategy of purposeful sampling, namely, critical-case sampling, was used to select subjects because they "can make a point quite dramatically or are, for some reason, particularly important in the scheme of things" (Patton, 1990, p. 174). Critical-cases provide evidence that

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cannot be used to make broad generalizations, but can be used to make logical generalizations, because the subjects represent a typical group where "if it happens there, it will happen anywhere" (p. 174).

Six participants were selected from the graduate program based on attributes suitable for critical-case sampling, profession and gender. The selection of these two criteria rested on the assumption that each factor has the potential to highlight differences in the participants' use of reflective practice, as well as possible differences in their cumulative learning through experience. Six participants were included in the analysis, but two additional participants were identified as a safety measure in case of attrition.

## Data Analysis

To understand how the participants responded to questions that guided the study, the following sections explain the data, its presentation, and its analysis in relationship to the basic research question and the four exploratory questions.

I extracted salient data for the study from several sources: audiotaped, individual interviews that were later transcribed, portfolios, field notes, and my reflective journal. The interviews and portfolio-document reviews were conducted to address the basic research question and the exploratory questions. The initial data consisted of: (a) typed, verbatim transcripts of audiotaped interview sessions with each participant, (b) six portfolios; (c) audio and handwritten field notes for each; and (d) handwritten pages of my reflective journal.

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To organize the data, I considered using various procedures, such as the index-card strategy of Lincoln and Guba (1985), labeled file folders (Merriam & Simpson, 1995), and computer-software programs (Creswell, 2003). Throughout the course of the study all of these methods were used. Quotes from interviews, passages from portfolios, and field notes were used in the description of the participants' experiences.

The analysis process entailed three major steps: (a) the interviews were openly coded initially into categories with a number of related codes, and the documents were openly coded with related codes; (b) the data were reorganized and coded by identifying overlapping information among interviews and documents and then combining information from these two sources with similar characteristics; and (c) in conjunction with ongoing information collected and information in my journal and field notes, the data were collapsed into categories constituting what the data revealed. Chapter 4 contains the findings emerging from the interview questions and chapter 5 contains the conclusions categorized by each of the four exploratory questions.

All of the data were analyzed in light of the basic research question, the four exploratory questions, and the interview questions. To reiterate, the basic research question was this: Does the process of developing a portfolio help adult students in a graduate-degree program demonstrate graduate-level learning and competency? The following paragraphs methodologically address each of the four exploratory questions, which relate to the required data, sources, methods, gathering techniques, and analysis.

## First Exploratory Research Question

What elements constituted the perspective of participant perceptions about portfolios as a learning and assessment tool in graduate-level learning? The data used were the descriptions of students' feelings, experiences, and opinions. The data sources were participants and field notes.

The methodology for gathering data pertaining to this exploratory research question was in-depth, individual interviews. Data-gathering techniques included interview-question guides and verbatim transcription of interviews. The analysis of the data was ongoing and included identification of categories, codes, a matrix to organize data from each source, review of field notes, and a researcher's journal. All 15 of the interview questions contributed to operationalizing this exploratory question as illustrated in Figure 5.

## Second Exploratory Research Question

According to participants, how does participant reflection enhance the learning process? The data collected were the same as for Exploratory Question #1 with the addition of portfolio-document review. The data sources were adult students as well as portfolios and field notes. The collection methods included document review as well as individual interviews. The data-gathering techniques and the analysis of the data were the same as those used to address the first question except for the addition of data comparison between interviews and portfolio documents. Figure 6 shows the linkages between Exploratory Question 2 and its corresponding interview questions.

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*Figure 5.* Representation showing the relationship of the paraphrased Interview Questions (IQ), paraphrased Exploratory Question (EQ) #1, and the research question.

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*Figure 6.* The relationship of the paraphrased Interview Questions (IQ), paraphrased Exploratory Question (EQ) #2, and the research question.


Third Exploratory Research Question

How does the process of portfolio compilation help the participant represent his or her cumulative learning that has taken place? This question required the same data and

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information as Exploratory Questions 1 and 2. I used the same data sources used in

question 2—adult students and portfolios—and employed the same methods and data

gathering techniques.



*Figure 7.* Representation showing the relationship of the paraphrased Interview
Questions (IQ) to Exploratory Question (EQ) #3.

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The analysis of the data for question 3 used the same analysis processes described for question 2. The interview questions that operationalize this exploratory research question, as shown in Figure 7, include the questions pertaining to the participant's perception of his or her accomplishments before, during, and after portfolio development; portfolio development challenges and benefits; learning attributable to the portfolio development process as well as learning as it relates to graduate program competencies; and the reflection experience as a part of the learning process as well as the use of reflective papers and/or journals.

## Fourth Exploratory Research Question

How does the presentation of a portfolio represent learning, reflection-in-action, and transitional growth in each participant? The data analysis required the same data sources, methods, gathering techniques, and analysis as for question 1. The interview questions that operationalize this are shown in Figure 8. The process included a question focused specifically on the role of the portfolio presentation as part of the learning process as well as related questions such as the respondents' perceptions of the portfolio as a learning tool, the value of a degree with a portfolio, and how self-reflection may enhance learning.

For all of the exploratory questions, multiple data-information sources, methods, gathering techniques, and analysis processes were used to enhance the integrity of the study and confirm the findings. The discussion that follows explains how the descriptive validity and credibility of the study were enhanced through triangulation.
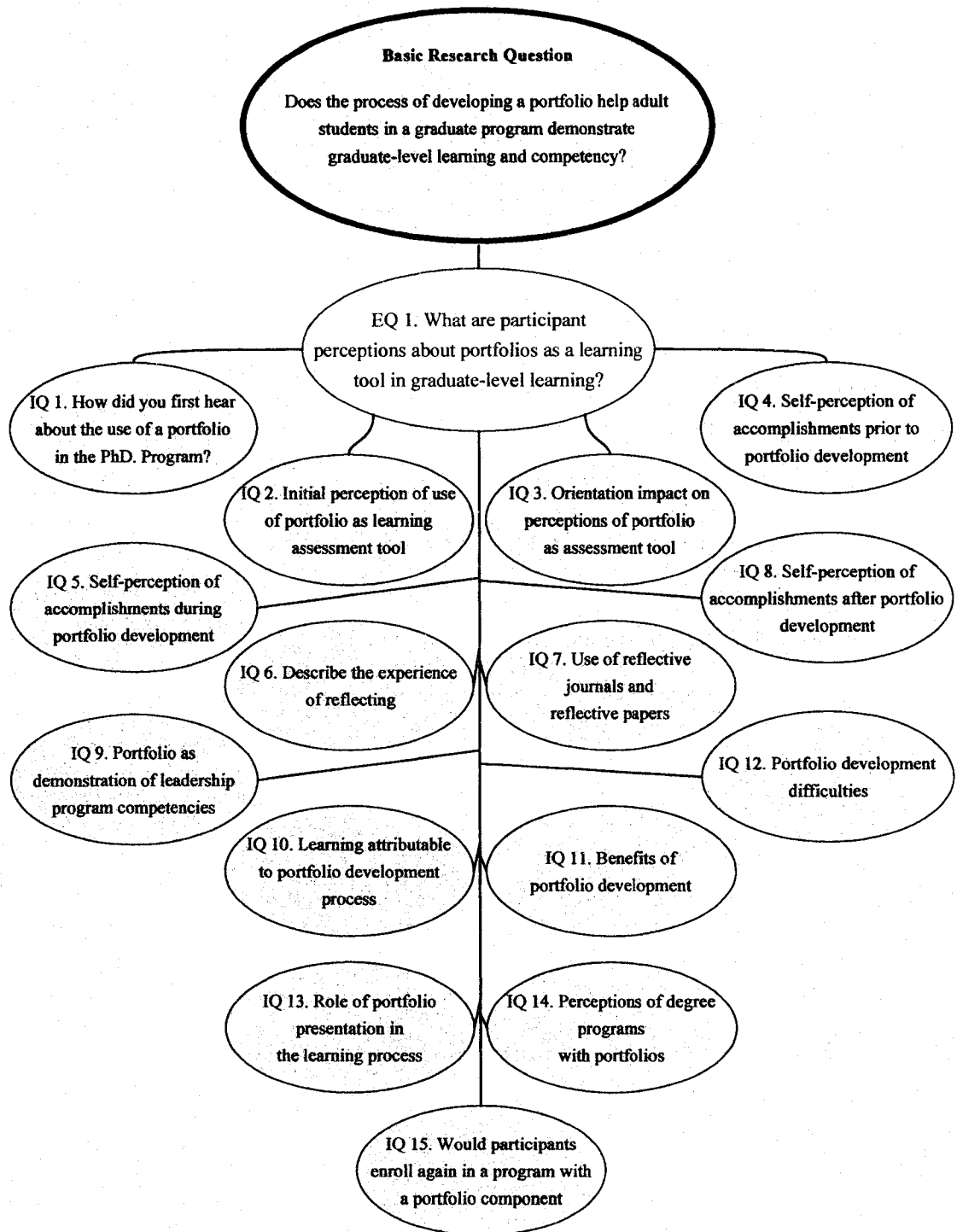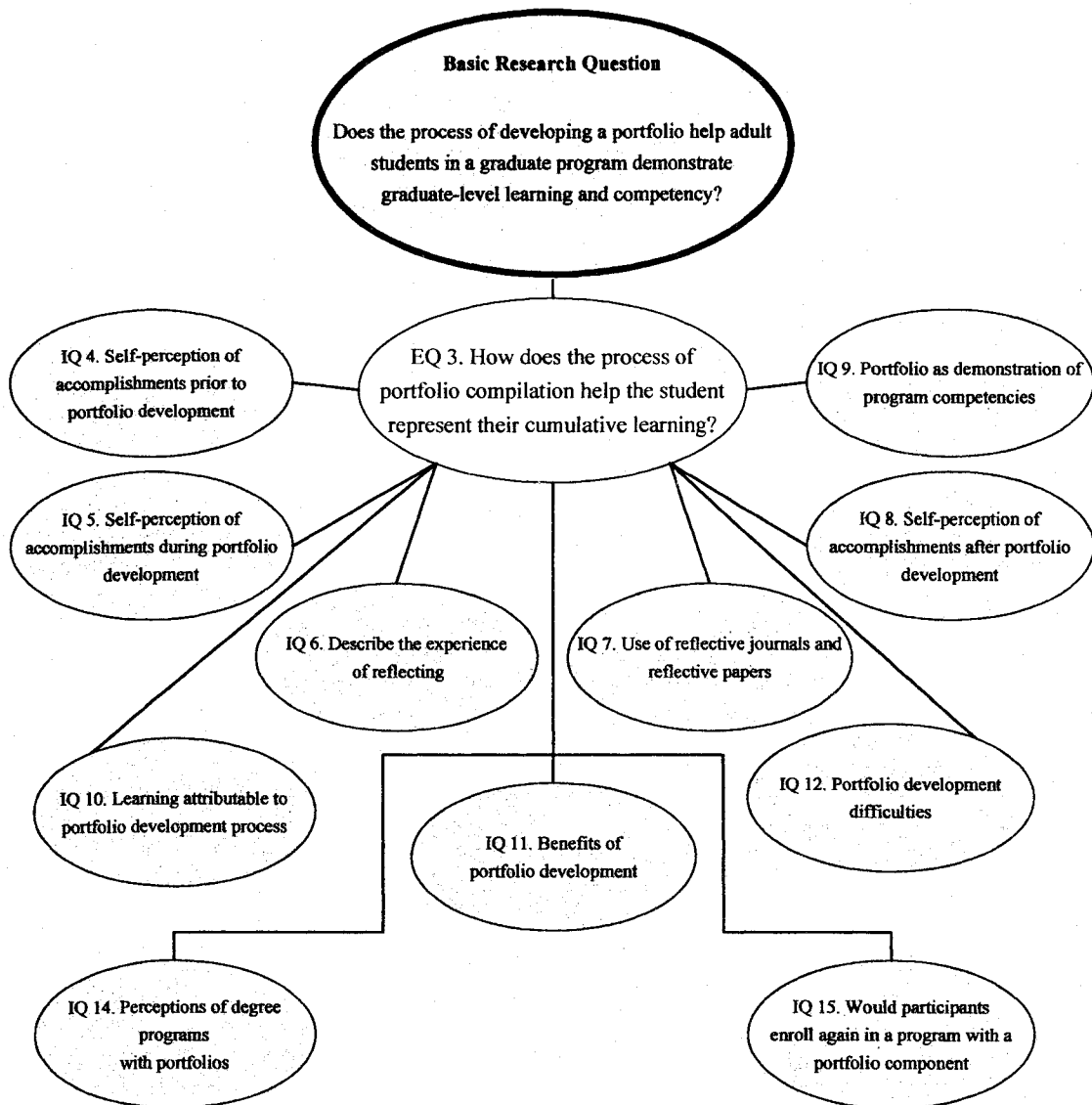
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*Figure 8.* Representation showing the relationship of the paraphrased Interview Questions (IQ) to Exploratory Question (EQ) #4.

## Confirming the Data

In his book *Images of Organization*, Morgan (1986) explored how metaphor can

illuminate and challenge our everyday thinking, but can also constrain it, leading

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sometimes to the uncritical adoption of certain views and the ill-advised neglect of others. He argues that "the use of metaphor implies a way of thinking and a way of seeing that pervade how we understand our world generally" (p. 12). In particular, he suggests that "metaphor exerts a formative influence on science" (p. 13). The metaphor I used to corroborate the accuracy of the study findings was triangulation (Denzin & Lincoln, 2000). Jick (1979) noted that the triangulation metaphor is taken from navigation and military strategy, which "use multiple reference points to locate an object's exact position" (p. 602).

As Figure 9 illustrates, data were triangulated in three areas: (a) data-gathering methods–interviews and document review; (b) data sources–participants' words, portfolio entries, and field notes; and (c) data analysis–peer review/examination (by a doctoral student) and a researcher's journal. A general discussion of descriptive validity and credibility in qualitative research with regard to my role as the interviewer and document reviewer precedes a specific explanation of the use of triangulation in this study.

Descriptive Validity and Credibility

Merriam and Simpson (1995) treat the subject of descriptive validity and credibility relative to the interviewer's role in a study when they note that "skill and knowledge in order to gather valid and reliable data" (p. 151) relate to the credibility of the interviewer.
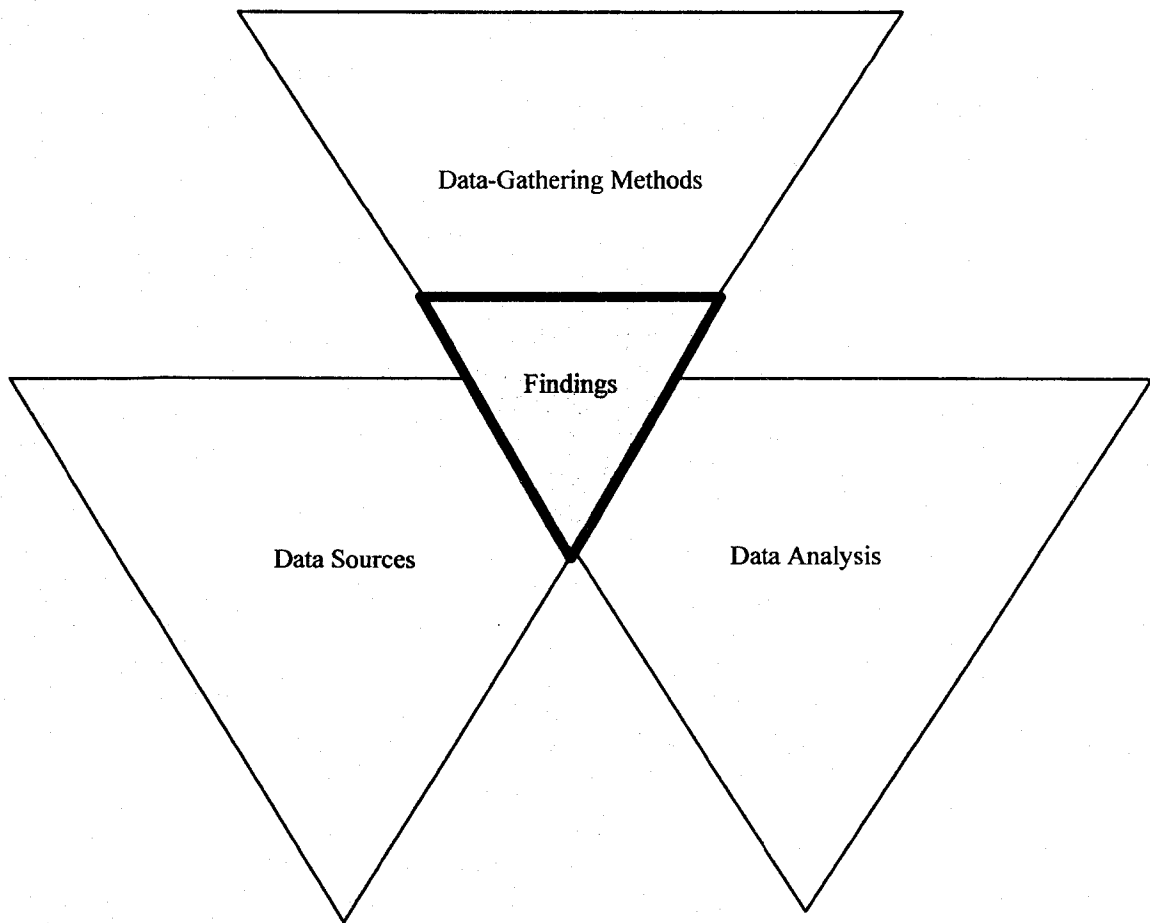
*Figure 9.* The relationship of data to findings using triangulation.

I have interviewed numerous professionals in business, higher education, government, and as a member of university search committees when I served as the academic dean at a midwestern university. My objective as the interviewer in this study was to "attempt a direct description of the students' portfolio experience . . . [where] objectivity [is] reached through intentional acts of consciousness and [is] an expression of fidelity to the phenomena investigate" (Kvale, 1996, p. 53). I was aware throughout the study, and specifically during the interviews, of my responsibility to manage multiple roles.

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Descriptive validity and credibility in the area of document review are characterized by the authenticity of original documents and the clarification of documents by primary sources (Gay, 1996). The portfolios reviewed were authentic documents. The data from these documents were further clarified through interviews with the participants who created them.

Merriam and Simpson (1995) sum up the descriptive validity and credibility worldview of the qualitative approach in the following manner: "Where quantitative measurement uses objective and standardized instruments to limit data collection to prescribed categories of response, qualitative data are open-ended in order to find out what people's lives, experiences, and interactions mean to them in their own terms and in their natural settings" (p. 157).

## Triangulation in This Study

The rigors of using triangulation in qualitative research by employing multiple methods, sources, and analysis points are underscored in the methodology literature. Denzin and Lincoln (2000) pointed out that many types of triangulation—including data sources, methods, investigators, techniques, and analysis—augment descriptive validity and credibility in qualitative studies and help capture many aspects of reality.

Lincoln and Guba (1985) also noted the usefulness in employing triangulation to account for the existence of multiple constructive realities. By using multiple sources to describe these realities, the qualitative researcher can increase the accurate representation of the case. Thus triangulation adds to the validity and reliability of studies by enabling

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researchers, as Berg (1998) stated, to have "multiple lines of sight directed toward the same point, [allowing] researchers [to] obtain a better, more substantial picture of reality" (pp. 4-5). Furthermore, according to Yin (1989), "the case study's unique strength is in its ability to deal with a full variety of evidence—documents, artifacts, interviews and observation" (p. 20).

As noted earlier, triangulation figured importantly in three critical areas of this study: (a) data-gathering methods: interviews and document review; (b) data sources: participants' words, portfolio entries, and field notes; and (c) data analysis: peer review, member check, and the researcher's reflective journal.

## Summary

In this chapter, I explained the study's qualitative research design and rationale and presented the case-study format. This was followed by an in-depth explanation of the data-collection techniques of interviews, portfolio documents, field notes, and my reflective journal, all of which were used to obtain detailed information and descriptive data about students' perceptions, feelings, experiences, and attitudes towards the portfolio-development process.

I have explained my rationale for the selection of the six participants in the study. I reported on the procedures used in the study, the nature of the data, and how the data were presented. Various coding and categorizing systems were considered prior to data collection and were amended as the study unfolded. The interviews were openly-coded initially and then re-coded and reorganized into categories, each with specific

corresponding components that constituted what the data revealed. Tesch (1990) noted in a summary of the principles used by the majority of qualitative researchers that categories are tentative and preliminary in the beginning, and that they remain flexible. Strauss and Corbin (1990) state that lower level categories (or codes) emerge relatively quickly and that higher level categories tend to come later when integrating concepts. This was helpful to my understanding of the iterative nature of qualitative analysis and was how I approached coding the findings.

The chapter concludes with a discussion of several important features in the area of data confirmation. These include an explanation of how descriptive validity and credibility were taken into account during the course of the study and how triangulation was used in multiple data sources, gathering techniques, and points of analysis. The findings that emerged from the study data are presented in chapter 4.

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CHAPTER 4

FINDINGS OF THE STUDY

This single-case study explores how the process of developing a portfolio may

assist adult students in a graduate-degree program to demonstrate graduate-level learning

and competency. As noted in chapter 3, the data-collection strategies used in the study

include document and artifact review and individual interviews. Using information from

interviews, excerpts from portfolios, reflection and synthesis papers, information obtained

from field notes, and journal entries, this chapter presents the following: (a) a description

of the setting, the program, and the participants; (b) the interview data and their

components; and (c) a summary.

**The Setting**

The graduate program selected for the study is a graduate program at a religiously

affiliated, regionally accredited, Carnegie Category II research university.

**The Program**

The graduate program is multi-disciplinary and participants in the program come

from throughout the United States and around the world. The graduate program is offered

through the University's School of Education. The program can lead to a Master of Arts

(M.A.), Education Specialist (Ed.S.), a Doctor of Education (Ed.D.), or a Doctor of Philosophy (Ph.D.) degree. The graduate program was developed to meet the needs of today's practicing and emerging leaders. The program prepares leaders for service in their professional forums and is based on the demonstration of competencies. It is individually customized, reflecting demonstrable competencies practiced in organizational, interpersonal, and community environments. The list of the competencies is located in appendix B.

The graduate program works through a collaborative structure. Each year approximately 20 applicants are accepted for the program and are assigned to faculty advisors/mentors. The program emphasizes competencies through the creation of an Individual Learning Development Plan (ILDP) that serves as each student's road map. The ILDP can replace some or most of the traditional coursework, making it field-based and flexible.

According to one of the graduate program's founding faculty members, the program represents a different paradigm of instructional delivery (Tucker, 2002). Founded on the idea that the program would be a way for students to earn a graduate degree while employed, the program focuses on demonstrating competencies in professional leadership. The ILDP serves as a means through which the student designs and implements his or her own plan to fulfill the competency requirements of the program. Through applying skills in the workplace, the student can demonstrate fulfillment of the competencies (Tucker, 2002).

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In the graduate program, students engage in traditional learning activities such as on-campus activities and off-campus fieldwork as well as non-traditional learning activities such as regional study-groups and intensive seminars. The delivery strategies include distance-learning methods in addition to a limited amount of traditional classroom delivery. One of the graduate program's founding faculty members identified the following polemics as the graduate program's theories of action:

1. Competency-based rather than course-based
2. Job-embedded and work-related rather than decontextualized
3. Community of learners rather than individualized distance-learning
4. Use of pedagogical learning theory rather than traditional presentation.
(Tucker, 2002, p. 54)

The graduate program requires a 1-week, on-campus orientation during the first year. During the course of the program, all students and faculty also meet for several days during an annual leadership conference in July. Throughout the orientation, new students begin planning their ILDPs which include formulating a vision statement and their proposed activities based on their own self-reflection and assessment of their competencies (Penner, 2002).

As one of the founding faculty members states,

Together the [ILDP] and the portfolio can be regarded as bookends that form a beginning and an end, and thereby hold the program together for the individual participant. Formulating the [ILDP] is where the participants begin; the presentation of the portfolio is the final activity, in which participants demonstrate that they have become the individuals described in their [ILDP]. The portfolio can be thought of as a 'box' that holds evidence of the transformation. Throughout the program, participants place physical verification into the box, verification that demonstrates their leadership competency in each of the 20 competencies. As a culminating activity they present the portfolio as "proof" of completion. (Penner, 2002, p. 92)

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The graduate program places great importance on the student's development of their ILDP and ensuring that the students fulfill the requirements that they themselves have specified in the ILDP as approved by their faculty advisors.

The ILDP documents the student's plan for demonstrating the graduate program's required competencies and specific supporting activities that the student will undertake to complete his or her degree.

> Each participant's ILDP is individualized and takes into account the participant's past experience, current level of knowledge and skills, and career goals. By comparing that information to the program's competency profile, the ILDP becomes the map that will take the participant from admission into the program to successful presentation of the portfolio. The ILDP is developed cooperatively by the participant and the advisor and approved by a program team consisting of the participant's advisor and a second member of the faculty. (Penner, 2002, p. 93)

Composed of three main parts, the ILDP includes a vision statement, a proposal that the student creates as the means to demonstrate the graduate program competencies, and a credit worksheet. The credit worksheet serves as "a translation of the plan into the participant's academic transcript, which, like all degrees, is the permanent record of the degree in the records of the university" (Penner, 2002, p. 93).

Penner further describes the role of the vision in the ILDP:

> The vision is a creative statement explaining who the participant is and who he or she wants to become. The process of writing the vision begins at the orientation, where participants are challenged to think more broadly than they may have done in the past. This opens up new windows into the future and stretches the participant to "dream large." The visions are individual, no two are alike, and the faculty has been very careful not to formalize or routinize the process. Within the vision there may be a review of the past, but it is looking to the future that creates the necessary gap between the present and future, the gap that we want to bridge during the course of the program. (Penner, 2002, p. 93)

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Building on their vision statements, students create their plans to develop and to demonstrate the program's 20 leadership competencies in six categories. Students customize these plans for demonstrating competency based on their own professional contexts and career goals. Penner describes the way participants format their plans for demonstrating competency:

> All participants must list physical evidence of what they have already done and what they plan to do, including additional evidence that will be provided to prove they have fulfilled the competencies. Often this entails writing a specific goal statement for a given competency, listing activities they have completed, activities to be completed, and the evidence of competence that will be included in the portfolio. (Penner, 2002, p. 93)

In the program, care is taken to ensure that the students meet all University requirements for their degree, and the ILDP includes a list of degree requirements. The student outlines how they have met those requirements whether through coursework, directed study, mentored activities, or other learning activities. In the graduate program, students pursuing a master's degree can choose whether they write a thesis. For the doctoral degrees, the dissertation is required and the student must fulfill all of the University's dissertation requirements.

One of the graduate program's founding faculty members identified the relationship between the Individual Learning Development Plan and the portfolio. He likened the ILDP to describing the route, and the portfolio to collecting the evidence (Penner, 2002). Students can provide artifacts and evidence, proof of competency, through a variety of means including documents, videotapes, and publications. The program requires that one or more observers, co-participants, or experts in the field of

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each competency evaluate the portfolio (Penner, 2002).

Penner notes the role of reflection in the portfolio development process:

> It is also important that the participants evaluate his or her own experience
> in light of what others have done or are doing. For this reason it is
> important to include not only the successful projects, but the failures as
> well, noting what was learned by the experience. Including reflective
> thoughts about books, articles, and research demonstrates an awareness of
> current ideas in any given field and the presence of a knowledge base on
> which to evaluate personal work. This step might take the form of a
> journal of the process, a summary paper of various experiences, or, a
> personal critique, all demonstrating that the participant not only has taken
> part in the activities but also has actively thought about each one. (Penner,
> 2002, p. 94)

Instead of a written comprehensive qualifying examination used by many graduate

programs, the graduate program in this study requires students to demonstrate

competence through the portfolio presentation as mapped out in their ILDP (Tucker,

2002). In the presentation, the student

> revisits his or her vision statement, considers his or her experiences in the
> leadership program, and produces a summary paper that synthesizes and
> evaluates his or her development during the course of the program. This
> paper is often accompanied by visual demonstrations, videos, power-point
> presentations, and dramas or poetry. Just as the vision is a very personal
> statement, the summary paper describes a personal journey and therefore
> varies in content and presentation. At the same time, the portfolio (usually
> several crates of material) is presented at a public evaluation. This step
> adds rigor and validation to the process. The presentation of the portfolio,
> while having elements of evaluation, is primarily an unveiling of the
> evidence and as such becomes a celebration of a job well done. (Penner,
> 2002, p. 95)

In summary, this study analyzes the use of portfolios to demonstrate experiential learning.

Participants in this study were enrolled in a graduate program in which they created an

ILDP with a resulting portfolio (and presentation of that portfolio) to demonstrate

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leadership competencies to fulfill some of the requirements of the graduate program. These activities take the place of the comprehensive qualifying examinations that are a feature in many graduate programs.

## The Study Participants

Six participants were selected from the graduate program for critical-case sampling, based on occupation and gender. The selection of these two criteria rested on the assumption that each factor had the potential to highlight differences in the participants' use of reflective practice, as well as possible differences in their cumulative learning through experience. Six students participated in the study, with two additional participants identified as a safety measure in case of attrition. The participants included three women and three men all of whom were at least 35 years of age. For purposes of protecting the identity of the participants, a pseudonym was assigned to each participant. The participants include Adam, Ben, Charles, Deborah, Esther, and Fiona. These pseudonyms were assigned as the interviews were confirmed and conducted.

## The Data

The data include individual interviews with the study's program participants and a document review of their completed portfolios and reflective synthesis papers. The semi-structured interviews with open-ended questions were used to elicit information from each participant about the portfolio process, and allowed for the emergence of a variety of concepts and feelings. The data that follow are presented in the order of the interview questions with additional analysis triangulated from the portfolio review (including

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reflective papers) and the participants' synthesis papers.

## The Initial Awareness of the Role of a Portfolio

Question 1: How did you first become aware of the use of a portfolio as part of the graduate program? None of the participants made reference to how or when they became aware of the program's specific portfolio element in their portfolios, reflective papers, or synthesis papers, though they discussed their initial awareness in interviews.

In interviews, four of the participants indicated that they had become aware of the portfolio aspect of this program prior to being admitted and attending the required orientation session. Two participants were not familiar with the portfolio requirement until orientation. The four participants who were aware of the portfolio requirement prior to the orientation indicated that even though they were aware of the portfolio, they may not have understood exactly how the portfolio requirement would work. Further, the four who were familiar with the portfolio requirement found it an acceptable way to recognize experiential learning because it was consistent with their beliefs about learning. In fact, two of those participants indicated that they had used portfolios in their Master's-degree programs thus establishing that they had personal experience with portfolios in another setting. Regardless of when the participants became aware of the portfolio requirement, through interviews they each indicated a belief in the value of portfolio component. The evidence supporting this assertion is discussed in interview questions 14 and 15.

## The Portfolio as an Assessment Tool

Question 2: What were your thoughts about the use of a portfolio as a learning

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assessment tool when you heard about it? All six participants responded that they were favorably inclined toward using a portfolio as a learning assessment tool. Additionally, five participants indicated that they had a favorable expectation with regard to the use of a portfolio as an assessment tool. Deborah said, "I was thrilled because it was part of the learner-centered model that I was seeking." Ben said, "I have a background in portfolio assessment so I felt pretty comfortable with it and had a decent understanding of it as well."

Charles, while expressing favorable expectations about the portfolio, did not consider the portfolio as a significant assessment tool commenting, "I had a lot of questions, but I just thought of [the portfolio] as a presentation that you had to make. I remembered hearing that the program culminated in a celebration, so I did not take [the portfolio] as a serious thing." In interviews, none of the participants indicated that they had a clear understanding upon entering the program of how the program competencies as demonstrated through the portfolio would ultimately translate into graduate credit.

A review of the participants' synthesis papers showed that though not all of the participants may have stated that they saw the portfolio as an assessment tool, they constructed their synthesis papers in a way that demonstrated an understanding that the synthesis paper would be used as a program assessment tool. In a review of the participants' portfolios, it appears that many understood the assessment tool role that the portfolio played in helping them demonstrate competency. For example, all of the participants used reflective analyses to tie both the practical and theoretical aspects of their various experiences and artifacts to a demonstration of competency. However, none

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of the participants used a reflective paper for every single competency.

## The Portfolio as an Assessment Tool After Orientation

Question 3: How did attending the graduate program orientation change your opinion on using a portfolio as an assessment tool? Only Deborah indicated a change of opinion stating, "After the orientation I had a much clearer understanding of what needed to be done as well as how [the program] worked. The orientation really helped me to better understand the significance of the competencies and the portfolio so I would say that it was a turning point." Charles expressed that the orientation had no impact, "I thought it was something different. I just thought it was something different than coursework, but I didn't think much about it."

Examination of the portfolios and synthesis papers did not record conclusive evidence of a change in the participants' view of the portfolio as an assessment tool as a result of orientation. Even though most participants felt they understood the portfolio as an assessment tool to demonstrate competency, even after orientation all of the participants were still unsure as to the relationship of the portfolio's demonstration of competency to specific grades and courses that would be posted on their transcripts.

## Perceptions Prior to Portfolio Development

Question 4: What were your perceptions of your professional and personal accomplishments before beginning the portfolio development process? This question prompted lively responses and discussion. For example Adam stated, "My perceptions about my accomplishments were reflected in the design of my portfolio. With few

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exceptions, I did not report prior accomplishments in my portfolio for two reasons. First, I had no evidence of prior accomplishments to exhibit, and second, I had a notion that I was going to earn a Ph.D. through efforts I was about to make, not through an accumulation of prior accomplishments." Inspection of the contents of Adam's portfolio supported his assertion. Adam's portfolio contained evidence almost exclusively contemporary with his participation in the program whereas the other five portfolios contained a mix of evidence from experience prior to and contemporary with their involvement in the program.

In her synthesis paper, Fiona expressed her view that learning is embedded in her day-to-day experience and that theory is relevant only after having had practical experience. The synthesis papers and portfolios of all of the other participants echoed this view. These observations are consistent with Kolb and Fry's (1975) Experiential Learning Cycle (Figure 2, p. 27) as discussed earlier. Additionally the participants' observations support what Jarvis (1992) noted regarding human existence being situated within time and emerging through time and that learning is the process through which the human being as opposed to the biological being grows and develops. So, according to Jarvis, in a simplistic sense, time is experienced as a matter of past, present, and future. All of the participants' synthesis papers indicated that they viewed their personal and professional experiences as significant before entering the graduate program. Additionally, though, they all included an interpretation of their prior personal and professional experiences through the lens of the theories that they had explored during the program.

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Through interviews, the relationship of personal and professional accomplishments to developing their portfolios was not completely clear to the participants prior to beginning this specific portfolio-development process. Some of the participants had portfolio-development experience and others felt they were familiar with the idea of portfolios. One of the unresolved issues in the participants' minds relative to the program's use of portfolios revolves around the use of the portfolio as a stand-alone way to get credit as in a prior-learning assessment-exercise, or the use of the portfolio to hold artifacts that help document experiences which through formal reflection may demonstrate experiential learning and competence.

## Perceptions During Portfolio Development

Question 5: What were your perceptions of your professional and personal accomplishments during the portfolio-development process? Deborah shared, "I would say is that it helped me understand that I did accomplish more than I normally think I accomplished. When I sit back to think of it I say, 'I guess I did accomplish a few things.'" Charles commented, "I saw them as competencies based on the requirements of the program. I started looking at some of my accomplishments and some of my projects that I worked on in my organization. I started making ties to the competencies. It started coming together a little bit more with regard to making sense of the program. [I thought], 'Okay, I understand this now.'" Esther commented, "I tried to pick out what would truly represent major learning, rather than going for incredible bulk; I tried to include valid pieces that would show different things. I was very purposeful in what I was chose and

why." Adam stated,

> The first competency I documented was 6(e) number 20, on Technology,
> and the last one was 4(c) number 12, on Decision Making, that I
> completed three years later. In my view, a considerable maturation of
> approach took place during those three years. I learned to more fully adapt
> the program to my own situation of leadership . . . , and in the process of
> reading and documenting my portfolio, I learned about the theoretical
> frameworks underpinning important aspects of my job, such as the
> importance of the emotional and social aspects of decision making. For the
> most part, I was pleased with what I put into my portfolio as I completed
> each of the competencies.

The relationship of personal and professional accomplishments to developing a

portfolio to demonstrate competence was very subjective for each participant. At the time

of the interviews, the program provided no specific rubric or guide to define the types of

personal and professional experiences or their value in demonstrating competency. As

some of the interviews indicated, there is a difference in what each participant perceived

as being important. This raises the question as to whether competency is demonstrated

through accumulating physical proof of having engaged in an experience, or whether

those experiences are valuable only when they are attributable through reflection to

learning. Inspection of the portfolios indicated no evidence that the participants included

specific reflection to relate each artifact within their portfolio to specific competencies.

Not only was the existence of the relationship between each portfolio artifact to

a specific competency unclear, the process of developing a portfolio can, by its

autobiographical nature, be emotional for adult learners. In interviews, each participant

expressed a personal reaction to the process of developing their portfolio, again

regardless of age, or gender. This aligns with the findings of McCormick (Cafarella &

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Barnett, 1994) and Merriam (1996) that there is an emotional aspect to portfolio development. Additionally, in interviews, the responses of the participants are consistent with Boud and Walker's (1998) findings:

> Reflection is not solely a cognitive process, emotions are central to all learning. Recognition of affective dimensions of learning means teachers taking responsibility to create a climate in which the expression of feelings is accepted and legitimate. (p. 194)

For some participants the portfolio and synthesis papers included solely professional information. Deborah acknowledged that she had screened out certain elements during the portfolio-development process because they would have been too personal for her to share even though they could have demonstrated learning or competency. Additionally, in her synthesis paper, Fiona commented that the program is life-embedded thus recognizing that it comprises both the professional and personal realms.

The Reflection Experience

Question 6: How would you describe the experience of reflecting on your accomplishments? Fiona stated, "I'll give you an example: the change competency. I knew [I had] personal experience with change because I had been doing it and had some on-the-job staff development. However, I had not thoroughly read any change literature. I was familiar with some of Senge's work along with a few peripheral articles, but as I said I had never read any original theorists." Fiona further explained, "The reflective paper brought together reading from all of these people [theorists and Senge] (Senge, 1990), to really draw from them the things that rang true with my experience and beliefs. I drew from those and actually used them in my reflective papers."

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As Fiona's account indicates, the portfolio, due to its very nature, requires the participants to reflect on their personal and professional lives. As Mezirow (Mezirow & Associates, 1990) pointed out in his research and writings on transformative theory, there are varying degrees of transformation that can take place in individuals when they engage in critical reflection. As evidenced by the findings in this study, all of the participants conveyed that they had experienced, to one degree or another, a transformation in how they viewed themselves and their professional lives. Similar to the ideas of Rogers (1983), who noted the nature of learning can change the learner's attitudes, the portfolio-development process led the participants to a richer understanding of *how* and *what* they accomplished in their career and personal lives, and changed their attitudes and opinions about their life achievements. An example of this came from Esther's interview in which she identified the importance of the experience of reflecting on her accomplishments: "I think that reflection is where the learning is, much more than the artifacts. I think that you get so caught up with the portfolio artifacts to prove competency that you can overlook the reflective pieces that I now understand are more important." Esther continued, "Reflection is where the real learning is, and it establishes the connections [to the portfolio artifact] in order to demonstrate competency."

In interviews and synthesis papers, the participants were split on whether they had gained a greater understanding of the importance and use of the reflective process in all aspects of their lives due to the portfolio experience. For example, Deborah stated, "In my master's degree program, we read the book *Blur* [Davis & Meyer, 1990]. So I had already

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been introduced to the concept of blurring your life (personal and professional) and your ambitions. I was struggling with how to do this until I began the doctoral program." She had operationalized the process of blurring through the reflection process which helped her to incorporate aspects of her personal and professional life. By contrast Charles, Adam, and Ben compiled portfolios that focused solely on their professional accomplishments and experiences. Though there were differences in the decision to include personal and/or professional artifacts in the portfolios that split along gender lines for the participants in this study, it does not necessarily follow that for a larger sample the findings would be the same. Both professionally focused portfolios and portfolios that blend professional and personal experiential learning are consistent with Mezirow's (Mezirows & Associates, 1990) finding that the transformative learning can take place through critical reflection.

The Reflection Experience Tools

Question 7: Did you keep a reflective journal or write reflective papers? Adam stated, "I did not keep a reflective journal, but I did write reflective papers for each of the competencies. I learned that I did not like digging inside myself to try to figure out why I thought what I thought, or at least, I did not like having to express it in writing. I suppose I found a way of getting by." Deborah shared, "I wrote a lot of reflective papers but I said that I would keep a journal and then I ended up not doing it." Fiona stated, "I didn't keep a journal, and that is not something that has ever appealed to me."

In contrast to the other participants who did not keep a reflective journal, Esther

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kept a reflective journal that she called a daily learning log. She said, "By journaling my

reflections, it helped me to internalize those connections [of portfolio artifacts to theories

to competencies] and be able to explain them to others [within my organization]. It was

useful to tell people where we were going, or what we were doing, or why we were

making changes." Esther did not include this reflective journal as a separate part of her

portfolio though in an interview she shared that she had drawn on the reflective journal

for content in the reflective papers in her portfolio. While some of the participants chose

not to use reflective journals as a method of reflection, the participant who used the

reflective journal reported that for her it was a very useful tool in the reflective process.

Perceptions After Portfolio Development

Question 8: What were your perceptions of your professional and personal

accomplishments after completing the portfolio? Adam said,

> I looked at everything differently after [completing my portfolio]. As I
> continued in my career and my professional life I was always referring to
> the portfolio. I guess I was always looking to see how [those
> accomplishments] related to my competencies. My goal was to build a
> portfolio on those twenty competencies, so I was always looking to see
> how I could apply whatever I did to those competencies and properly
> document them. I put everything I did under a microscope.

Esther noted that the portfolio had and continues to have value for her, "The

portfolio is a reflection of how I live my life. [The portfolio] is a useful tool. I still refer to

it." Deborah observed that in her opinion her most important accomplishment was the

dissertation and not the portfolio, "I did not notice a perception change. My biggest

source of growth in the program was really the commitment to the dissertation. I still read

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it now and am surprised that I wrote it. My dissertation is still my greatest

accomplishment." However, Deborah did not attribute personal learning to the portfolio-

development process, "It is basically putting together artifacts. Having come from another

competency-based program, it wasn't as much of a stretch for me. I think I already had

that awareness and it had begun to evolve into that. The portfolio is just a hard copy of

what I already knew." Examination of the portfolios indicated that artifacts ranged from

meeting minutes and/or certificates (to indicate attendance but not necessarily learning),

to reflective papers that linked experiences to a demonstration of competency using a

theoretical framework.

Throughout the portfolio-development process, the participants appeared to gain

insight into the possibilities of the impact that learning from people and experiences in

the workplace had on all aspects of their professional development. The effect of work on

one's psyche and world-view has long been noted by psychologists and educators such as

Merriam and Yang (1996), Kegan (1995), and Levinson (1978) who wrote of the positive

and negative connections between work and personal development. Theories and studies

on organizational culture, including Bolman and Deal (2003) and others, support

Marsick's (1990) observations on work, culture, and one's perspective:

> Individual meanings are influenced at work by the collective meanings and
> agreements that often remain implicit in the organization's culture.
> Learning reflects a concern for the transformation of personal frames of
> reference. It is impossible to separate one's professional, work-related
> knowledge and one's skills from the rest of oneself. (p. 24)

As noted in the program description, the work-embedded nature of the graduate

program reinforces the connections between individual and collective meanings. Some of

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the participants demonstrated these connections through their reflective papers, and all

participants demonstrated this through their synthesis papers.

Competency Demonstration Using a Portfolio

Question 9: Did the portfolio help you demonstrate your competency relative to

the Ph.D. program's competencies? Esther said,

> I think the portfolio helped demonstrate competency. The different
> artifacts that I was putting in [to it] helped to demonstrate the
> competencies and what I was learning. I think the reflective papers helped
> me think through the connections between my artifacts and the
> competencies. The artifacts in the portfolio just served as examples to
> demonstrate my experience related to the competencies.

Adam commented,

> Yes, the portfolio helped me demonstrate my competency relative to the
> program's competencies. I was glad to have had this portfolio experience,
> and [I] appreciate the value of this experience over the alternative measure
> obtained via comprehensive exams. A portfolio is a very individual
> creation. I believe I was able to create a representation that documented
> and demonstrated all twenty competencies.

Fiona shared, "Yes, absolutely, the portfolio and the reflective papers were my key to

demonstrating the competencies. I realized that you have to demonstrate competency to

yourself first. We wouldn't tend to do that if we didn't go through such an in-depth

exercise." Fiona's use of her portfolio in a job interview reinforces MacIsaac and

Jackson's (1994) findings regarding the multiple assessment functions of portfolios

including as a tool to demonstrate competency attainment in job interviews. Fiona did

note however that the portfolio was of more perceived value to her than those

interviewing her for a position.

When I applied for my current job I brought some artifacts from my

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portfolio, and asked if they wanted to see them and they didn't. I realized at that moment that the portfolio was a way I demonstrated competencies to myself and that was possibly more important than using it to demonstrate the competencies to other people.

Deborah said, "I don't feel it helped me demonstrate competency mainly because of the problem that I had with gathering the material. I had to spend a lot of time trying to resurrect things. I had more difficulty with that than I had with the dissertation." Charles noted the iterative nature of developing the portfolio and how he had evaluated his progress on his own, a feature of self-directed learning.

> [Developing the portfolio] put things in perspective. During the portfolio development process I referred back to my portfolio to check myself to see if I was on that right track to meet the competencies. If not, I had to decide what I needed to do [to demonstrate the competencies]. I used the portfolio artifacts as a gauge to measure my progress in meeting the competencies.

Similar to the findings for question 8, in question 9, the examination of the portfolios yielded evidence that every participant developed his or her own beliefs as to what met the criteria for demonstrating competency. This aligns with Knowles' (1980) assertion that adult learners benefit from a process that helps them to develop and apply self-evaluation procedures. Additionally, it supports Dewey's (1938) finding that it is appropriate to encourage adult learners to draw on their experiences with the subject matter in order to organize their knowledge.

Reviewing the portfolios, the associated reflective papers, and the synthesis papers illustrated that the inclusion of certain artifacts could be subjective and based on the participants' personal understanding of the competencies rather than an imposed program standard. During the period when the participants were in the graduate program

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there was not a rubric or clearly specified program standards for demonstrating

competencies. As such there existed the potential that the participants could demonstrate

varying levels of achievement for the various competencies. This allowed for great

individual growth and learning but not necessarily consistency between the participants'

demonstration of competencies.

Role of Portfolio in Learning

Question 10: What types of learning, if any, took place by developing a portfolio?

Ben said, "There is quite a bit of flexibility built into the portfolio-development process.

How you develop your portfolio depends a lot on your personal preference and learning

style." Esther commented,

> As I was developing my portfolio, I think the process of reflection helped
> my personal learning and growth. Without the reflective papers it would
> have been nothing more than filling up a bin with stuff. So I think the
> portfolio-development process helped me to take my learning one step
> further. It helped me become conscious of the things that I was already
> doing.

Esther's comments speak to how the portfolio-development process allowed her to gain a

deeper appreciation for her competencies because of the reflection that she did. In her

interview comments, Esther described that she had developed a process consistent with

Schon's (1987) concept of reflection-on-action.

Adam stated, "My major learning came from the reading I did to find a theoretical

framework for each competency." Adam reflected on his accomplishments and the

artifacts in his portfolio using theory to inform his own assessment of his competencies.

Ben noted the value of organizing his own experiences as a part of the learning process:

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Learning took place during the whole process, because of the ambiguity intentionally built into the program. [The program's ambiguity] was valuable because sorting out my experiences during the portfolio-development process was where a lot of my learning took place. If the portfolio-development process had been scripted it would have meant meeting someone else's expectations.

Through these comments Ben expressed that he appreciated the individualized nature of the portfolio-development process and that he had to define the process for himself. Ben also expressed that he valued gaining the feedback and input from other participants in the program before presenting his portfolio to faculty:

Going through my portfolio artifacts with my regional group and having them question the integrity of the items was helpful because I had to explain the value of the artifacts and why I was using one artifact instead of another. That gave me a sense of security before I got to the faculty who eventually signed off. I appreciated the nice stepping stone process of learning.

Ben's experience echoes Bandura's (1970) perspective on socially constructed learning.

The evidence gathered in the portfolio that demonstrates the participant's evolving and expanding knowledge base and competency aligns with the concept of cumulative learning and transitional growth as described by Jackson and MacIsaac (1994). Each student showed evidence of such learning taking place through reflective papers (when they used them) and synthesis papers. Each of the participants organized his or her synthesis papers by competency and highlighted certain artifacts. None of the participants discussed every single artifact in their portfolios however. Examination of the portfolios indicated that all of the portfolios contained evidence and artifacts for each of the 20 program competencies.

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Benefits of Portfolio Development

Question 11: What were the benefits of developing a graduate-level competency portfolio? Adam said, "Clearly, the scholarly reading that was a necessary part of reflecting on each competency was a major benefit in developing the portfolio." Charles' example of how he had imposed his own rigor on the portfolio-development process indicates the self-directed nature of portfolio development. He also indicated a preference for this process of learning as opposed to a more traditional approach:

> I think what [the portfolio-development process] did for me was that it drove me to be more disciplined in my research methods and to be more disciplined in my organizational skills. I think if I had only taken classes, it would have been different. You take a class for ten weeks and then you are done with it and you move on to the next.

Charles also noted the iterative nature of the portfolio-development process and how he had benefited from developing a more disciplined understanding of his own experience:

> During the development of my portfolio I found myself going back and checking and rechecking. I didn't finish a competency and then put it on the shelf. I was constantly reviewing everything I did, and I had a process for doing that. I think it made me more organized in my thinking.

Fiona shared that for her the benefits of the portfolio-development process were "the accountability, responsibility, self-awareness, growth, and the integrity of the process. The program reduces the fear of failure. Our [regional group's] motto was 'nurturing and positively reinforcing.' The portfolio was not separate from the entire system, but positively reinforced that motto within the program." Upon examination, the portfolio artifacts did not necessarily demonstrate benefits nor did the synthesis papers list benefits. However, in interviews, all of the participants expressed that they had

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derived benefits from the portfolio-development process.

## Portfolio-Development Difficulties

Question 12: What were the difficulties in developing a graduate-level competency portfolio? Ben said, "The only one I know of was the overwhelming nature of it. It was a large task to take on. Four years' worth of graduate study to put into six binders is kind of overwhelming, but that is the only difficulty that I experienced." Deborah said, "I had to sort out my artifacts and try to figure out which of my artifacts would be academically recognizable and merit inclusion in the portfolio." These two responses indicate that the participants went through a thought process of determining what would represent their learning and competencies. Though it may not have been formally captured, they reflected on which artifacts to include in their portfolios.

"The most difficult thing for me was also a benefit . . . the ambiguity of it," said Deborah. Similar to his early responses, Charles responded to this question by saying, "I am not a saver and I didn't feel that I knew what was expected." Consistent with the interview comments, a review of the portfolios and synthesis papers indicated that no single standard or guideline was used in the creation or compilation of the portfolios. Deborah's comment indicates that she valued the ambiguity because it caused her to elevate the level of analysis that went into the selection of artifacts to represent her demonstration of learning relative to the competencies. Just as the responses to the prior questions indicate, the responses to this interview question indicate that the participants became aware of the benefits of self-directed learning, and at times, the challenges and

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associated benefits of ambiguity.

The Role of the Portfolio Presentation in Learning

Question 13: What role did the presentation of your portfolio play in your learning process? Fiona shared how the presentation of the portfolio deepened her knowledge and likened the portfolio presentation to the process of teaching. "I tie that back to the learning theory that I believed before I even entered the program. That belief was that there is a whole pyramid of knowledge and that my depth of knowledge is less if I simply read something. I know that if I teach [a subject] I will really know it." Fiona contrasted the impact of the portfolio presentation with the value of writing the reflective papers: "The presentation of my portfolio further deepened my knowledge, more so than even writing the reflective papers and putting the whole thing together and having someone check it off."

Esther valued the portfolio presentation process and contrasted it with her view of traditional programs:

> It was a very affirming process. Before I defended my portfolio I was a little nervous. I wanted my presentation to reflect who I am. I wanted to demonstrate what I knew. I wanted the presentation to be hands-on because that is one of my major beliefs of learning. In a traditional program I would have just taken a test and it wouldn't have been as satisfying.

Her comments also indicated the value of the individual nature of her experience.

Ben indicated that he believed that he had not properly prepared for the portfolio presentation and therefore he had not found it as valuable of a learning experience as he believed it could have been. He said,

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The portfolio presentation didn't play an important role in my learning process and I will tell you why. My portfolio presentation was lousy. If I could redo one thing in the entire program it would be that. I defended my dissertation and presented my portfolio on the same day. I put way more importance on my dissertation defense than I did preparing for my portfolio presentation, and I think the portfolio presentation suffered.

Ben's comments indicate that he did not dismiss the potential for his portfolio presentation to have played an important role in his learning process had he been properly prepared.

Charles said, "My portfolio presentation was supposed to be a celebration and I think that would be the sense of it but I went through the portfolio presentation when there was a little bit of turmoil in the program. My celebration went from a celebration of knowledge and it slowly turned into a defense."

Charles raised the issue of ambiguity again:

I really didn't know what was expected of me in the portfolio presentation until after I did it. I was kind of winging it, because as we went along more and more things seemed to be more stringent than I thought they would be. In other words, in my mind and I believe in the minds of many others that went through the program, the requirements had changed. Maybe the requirements didn't change but our understanding had changed as we went along.

Charles' final statement indicates that his understanding of the requirements may have evolved and that, in that sense, learning may have taken place regarding the purpose of the portfolio presentation.

Deborah remarked that the portfolio presentation was, for her, a learning experience separate from preparing the portfolio. She noted that she needed to reflect upon her learning beyond what she had done when she compiled the artifacts and

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individual reflections in her portfolio. The preparation for the presentation and the portfolio presentation itself provided a synthesis for Deborah's learning integrating her experiential learning, theoretical foundations, and the program competencies: "At the portfolio presentation stage I connected my evidence with the theories from my courses. I also identified those competencies that fit with my experience and then supported them with a theory of practice." She further stated that the portfolio presentation facilitated her learning process and that she believed it was a necessary step in her learning.

Perception of Degrees

Question 14: What is your perception of a degree that has a portfolio component versus one that does not? Adam said, "I think a degree that does not include a portfolio component is distinctly the poorer for not having one. While it may be no less a degree, it lacks the lasting richness of the experience of creating the portfolio." Deborah valued the portfolio component and contrasted it with traditional programs:

> My perception is that the portfolio is a learning-centered model, which I endorse in all aspects of my life. I have friends that are in Ph.D. programs meeting someone else's expectations and I think it is because they don't have the portfolio piece in them, and that the professors don't buy into that philosophy of learning.

Esther also valued the portfolio component and contrasted it with traditional programs, "A program with a portfolio is a richer program. I don't want to seem judgmental but I think when you are going through a traditional program where you sit through classes and you take exams you do what you need to do to get through the class." Esther's further comment touches on a concept that is consistent with Bloom's taxonomy

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(1966) in that because of the portfolio component she had moved beyond memorizing

facts and had analyzed and synthesized: "You might be jumping through hoops and you

might be memorizing information for tests. I would argue you haven't learned. What you

had done was for the purpose of the course and the grade, getting credit, and just to get a

degree. I am not sure that all that material stays with you. So I am not sure that people

would be as prepared long term."

> Ben also valued the portfolio component over more traditional models,

> I think a degree program with the portfolio component is much better than
> a degree with a traditional oral comprehensive-exam. The portfolio
> component is cumulative in nature. You build the portfolio as you go and
> it can be summative and formative and the product at the end is
> summative.

Ben continued by indicating that he attributed personal learning to the portfolio-

development process and saw that as superior to programs with comprehensive

examinations:

> Along the way you learn about yourself and about what you are doing and
> maybe you want to make modifications. My own point of view changed
> quite a bit as I progressed through the program because I was learning
> about myself and developing. I realized that I wanted to do something
> different and I think that is cumulative, formative, and summative and is a
> much better tool than studying for a test at the end of a program.

This perspective echoes the literature on cumulative learning and transitional growth

identified by Jackson and MacIsaac (1994).

If You Knew Then What You Know Now

Question 15: If you could do it all over again would you enroll in a Ph.D. program

that used a portfolio? Ben said, "Yes." Adam said, "Unreservedly." Charles commented,

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"I believed whole-heartedly in the program and based on that I would probably go this route again." Deborah said, "Without hesitation." Fiona stated, "I would recommend the program." Esther said, "I would say the program is very valuable."

## Summary

This chapter presented the findings from the interviews, portfolios, reflective papers, and synthesis papers organized by question. The categories that emerged from the interview question data, the portfolio inspection, the reflective papers, and the synthesis papers are organized according to the study's overarching exploratory questions and are discussed in chapter 5.

CHAPTER 5

SUMMARY OF THE STUDY, RECOMMENDATIONS,

AND CONCLUSIONS

This study focused on the practice and assessment of graduate-level experiential

learning, specifically as it occurs through the use of portfolios and reflection as a method

to demonstrate learning and to assess competencies. In this chapter I will present a

summary of the study, discuss the findings related to the exploratory questions, and draw

conclusions based on the findings. I will also make recommendations for practice and

future research.

**Summary of the Study**

Adults have a great many professional and personal experiences that they bring

to academic life. Work, family, and community activities have a significant influence

on the learning of adults. This study examined the attitudes, opinions, feelings, and

perceptions of adult students before, during, and after they developed an experiential

learning portfolio as a component of their graduate-degree program. The purpose of

the study was to determine how experiential-learning, demonstrated through portfolio

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development and reflection, influenced the participants' understanding of what types

of learning the process of portfolio development generated.

The conceptual framework that provided the infrastructure of the study was

derived from theoretical and empirical studies of (a) the ways adults learn, (b) the

transformation of experiences into learning, and (c) the academic quality of

nontraditional graduate-level learning. Specifically, this dissertation investigated the

research question "Does the process of developing a portfolio help adult students in a

graduate-degree program demonstrate graduate-level learning and competency?" using

the Jackson and MacIsaac process model discussed in chapter 2 (Figure 3).

The findings of the study revealed that the portfolio-development process did help

the participants in the study demonstrate graduate-level learning and competency. In

interviews, all of the participants expressed satisfaction with the use of a portfolio to help

demonstrate experiential learning. This study offers a number of conclusions based on

triangulated data from interviews, portfolios and reflective papers, and synthesis papers.

These conclusions appear under each of the four exploratory questions.

Participant Perceptions About Portfolios

Exploratory Question 1 asked: What elements constituted the perspective of

participant perceptions about portfolios as a learning and assessment tool in graduate

education? The experiential learning model (Jackson & MacIsaac, 1994) in Figure 3

delineates three broad sets of assessment functions that portfolios can serve: the first,

portfolios for self-assessment or reflection on personal growth; the second, portfolios that

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facilitate progress assessment within an educational program for adults; and the third, portfolios that enhance self-presentation to external sources. Through interviews, examination of portfolios, reflective papers, and synthesis papers, the study revealed that the portfolio-development process did help the participants in the study demonstrate graduate-level learning and competency in these three ways. All of the participants expressed satisfaction with the use of a portfolio to help demonstrate their experiential learning.

Across numerous interview questions in this study, even though not asked directly, the participants volunteered that they believe that developing a portfolio is superior to a traditional graduate program that requires comprehensive-examinations as a means of assessment. This is a perception and not necessarily a statement of fact since the participants lacked experience with traditional graduate programs that require comprehensive-examinations. However, it is notable that all of the participants in the study believe that the portfolio is a valid learning and assessment tool. Further, when asked directly about the value of a graduate-degree program that requires a portfolio, they all indicated that they perceive it to be better than programs that do not. Additionally, these opinions support Jackson and MacIsaac's (1994) view of the value of cumulative learning and transitional growth in their process model for experiential learning.

The participants' observations about their perceptions regarding portfolios as a learning and assessment tool changed during their portfolio-development process. The interview questions tracked their recollections regarding their perceptions before, during, and after the process of developing their portfolios. They began with perceptions that the

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portfolios represented experiences and shifted to an understanding that their portfolios,

coupled with reflection, represented experiential learning.

## Reflection

Exploratory Question 2 asked: How does participant reflection enhance the

learning process? Artifacts and attestations that document learners' knowledge and

understanding must be coupled with reflection as represented through descriptions,

explanatory statements, and reflective commentaries. These narrations define, provide the

context for, and analyze the individual and collective contents of the portfolio. Without

these elaborations, a portfolio provides little context for purposeful and meaningful

assessment, and it is at risk of being an unwieldy and esoteric scrapbook (Edgerton,

Hutchings, & Quinlan, 1991). This is best reinforced by a quote from study participant

Esther: "Reflection is where the real learning is and it establishes the connections [to the

portfolio artifacts] in order to demonstrate [learning] competencies." Portfolio artifacts by

themselves are no different from archaeological artifacts or relics. That is, without

context and a demonstrated understanding of the artifact's relationship to a competency, a

portfolio artifact does not necessarily demonstrate learning. Experiential learning as a

result of portfolio development is achieved  only when a portfolio goes beyond being a

collection of artifacts representing an individual's experience.

The self-directed nature of the portfolio-development process linked with

reflection helped to mitigate the ambiguity of the portfolio-development process for the

participants in the study. As one of the participants noted, through the portfolio-

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development process a new understanding of the portfolio requirement emerged, and

hence a new understanding and appreciation for the value of the portfolio's meaning as

revealed through reflection. Reflection allowed the participants to move beyond

descriptive accounts to analyze, interrelate, and synthesize their various experiences in

relation to their learning and is consistent with Boud et al. (1985) that the activity of

recapturing an experience, thinking about it, mulling it over, and evaluating it is an

essential ingredient in the experiential learning process. The findings support Jackson and

MacIsaac's (1994) process model (Figure 3), and for the participants in this study, their

portfolios moved beyond "here's what I have done" (Jackson & MacIsaac, 1994, p. 69)

through reflection, self assessment, and self-reflection to "here's what it all means"

(Jackson & MacIsaac, 1994, p. 69) with respect to their learning. Portfolio development

can result in authentic experiential learning when accompanied by reflective analysis that

weaves the richness of the experience with a theoretical knowledge base.

Portfolio Development and Cumulative Learning

Exploratory Question 3 asked: How does the process of portfolio compilation help

the participants represent their cumulative learning that has taken place? According to

Wiggins (1989) portfolios chronicle a learner's growth and understanding, and they

provide opportunities for collaboration and reflection. In this study, a number of

participants cited the importance of working through their portfolio-development process

with the aid of feedback from their peers as well as the portfolio and reflective papers

being a record of their own personal growth throughout the process.

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Caffarella and Barnett (1994) observed, "Through reflection, using what Schon (1983) refers to as an 'internal dialogue' with one's self, people use experience, intuition, and trial-and-error thinking to define, solve, or rethink a particular problem or dilemma" (p. 38). The participants in this study recognized the importance of the iterative nature of the portfolio-development process. They noted that the portfolio-development process was a formative measure of learning and that the portfolio itself was a summative measure of learning. Caffarella and Barnett (1994) stated, "Reflection can focus on a variety of issues, including the tacit norms underlying a judgment, the strategies behind an action, the feelings associated with an event, or the specific role a person is trying to fulfill" (p. 38).

Portfolios portray a multi-textured view of learners, and they make visible both the processes and products involved in learning. Forrest (1990) found the process of developing portfolios is as useful a means for learners to think through the connectedness of their ideas as it is for revealing how participants construct more complex ideas.

## Portfolio Presentation

Exploratory Question 4 asked: How does the presentation of a portfolio document reflection-in-action and transitional growth in each participant?

As Mezirow (Mezirow & Associates, 1990) observed we become reflective by challenging the established definition of a problem being addressed, perhaps by finding a new metaphor that reorients problem-solving efforts in a more effective way. Multiple participants' observations as discussed in chapter 4 regarding the presentation of the

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portfolio indicate that it represented for them one of the ambiguous elements of the program. In fact, one participant observed that the presentation process was where the real learning occurred. As Mezirow put it, "This crucially important learning dynamic is analogous to the process of paradigm shift that Thomas Kuhn (1970) characterized as the way revolutions occur in science; which, after all, is only a more formal mode of inquiry for construing the meaning of experience" (pp. 12-13).

Much of the literature focuses on the value of the development of portfolios and corresponding written reflection and these proved to be important components in this study. However, the literature does not acknowledge the element of portfolio presentation as a key element of the reflective learning process and this study found that the portfolio presentation represented a unique and valuable reflective process for the participants in this study.

## Recommendations for Practice

Successful demonstration of graduate-level experiential learning when using a portfolio requires demonstrated reflection that includes three elements: (a) a description of the experience, (b) linkage to the relevant theoretical constructs, and (c) the application of the learning. The findings of this study serve as the foundation for several recommendations for practice based on these three elements.

The first element, the description of the experience, occurs when the student illustrates the learning that has taken place by describing and formally reflecting on each portfolio artifact. To accomplish the second element, portfolio development at the

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graduate level must go beyond the autobiographical, with the student weaving the learning experiences with the related seminal and theoretical literature. To incorporate the third element, the student applies the learning by linking his or her theoretically informed descriptive reflection to and ultimately demonstrating attainment of a specific learning objective or competency. In these ways the portfolio-development process can provide the rigor required for graduate-level experiential learning.

Formal reflection is not necessarily an intuitive process and to develop a portfolio each student must learn how to reflect on his or her experiential learning. Programs with a portfolio element should help students learn how to formally reflect on their learning experiences. Learning to demonstrate reflective learning could be accomplished through courses, workshops, seminars, instructional aids, and reference material. Graduate programs containing a portfolio element that represents experiential learning should have a systematic process for assessing portfolios such as a rubric. If a portfolio is used to demonstrate graduate-level learning or competency, the specific learning outcomes should be clear to the student before and during the process, just as they would be via a syllabus in a traditional graduate-level course.

## Recommendations for Further Research

This study's findings raise several important research questions. First, the impact on learning from portfolio development explored in the study reported only positive learning outcomes for the participants. Does the learning engendered by the portfolio-development process transcend gender and professional/career differences? The results of

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this particular case study of six participants appear to support that conclusion. This would

necessitate further studies, however, to deepen our understanding of the complexity of the

portfolio-development process. In a diverse graduate-student population, variables of

gender and professional/career experience cannot be ignored or assumed to be

homogeneous in the learning process. Additionally, each student's specific learning style

or preference and personality profile could be factors that affect the portfolio-

development process. Faculty, program advisors, and administrators could have an effect

on the portfolio-development process and further studies could investigate these potential

effects and/or control for these factors. The large number of students who have completed

portfolios would be a viable population to study regarding these issues and learning

through portfolio development.

A second area of inquiry could be studies on the academic quality and viability of

graduate degrees with a portfolio component. Do students who complete these programs

feel as capable and qualified as their peers who have obtained degrees in traditional

programs? Closely related research could investigate whether students who pursued a

degree in a graduate program that included a portfolio component do as well in career

advancement as others in the workplace who went through traditional programs.

A third area of inquiry for future research could include studies that describe and

explain other perspectives on the portfolio experience. The assessment of portfolios is a

faculty-driven process. Qualitative studies on the views of faculty portfolio-evaluators

could be enlightening. For the thousands of students who develop experiential-learning

portfolios, there are hundreds of faculty evaluators. What do faculty members think about

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the learning expressed through portfolios? How do faculty compare or equate portfolio components to traditional classroom learning? What elements constitute their perspective on the impact of the portfolio-development process? From my experience, faculty who assess portfolios could tell administrators and program designers a great deal about graduate-level learning and the academic quality of experiential-learning portfolios.

A fourth area of investigation, for those researchers interested in conducting quantitative studies, could be to develop survey questions to explore the portfolio experiences of a larger student population. Research in this area could include the creation of an instrument that measures varying degrees of impact in areas such as transformational learning, writing, organizing, and reflection produced by the portfolio experience. It could be of interest to this university and to other universities with portfolio programs to survey the experiences of this population to both inform and augment our understanding of the portfolio experience.

A final recommendation for research could be for those colleges and universities that use portfolios to conduct a similar study. Position papers, opinion papers, and anecdotal information on the impact of portfolio development can be found in the literature, but more rigorous research is needed to enable those most closely affected by portfolio development—the students—to express their experiences. The qualitative method of research gives a voice to the participants studied that cannot be replicated through surveys. The acquisition of these types of descriptive findings can provide administrators and faculty with important information for portfolio program-assessment and instructional strategies.

# Conclusions

In summary, researchers have noted that learning takes place in a variety of ways in individuals, and that experience plays a large part in learning. Yet, there have been few studies that describe and explain the graduate-level learning that takes place through developing an experiential-learning portfolio. Gaining a better understanding of the impact on learning from this type of educational methodology, through the qualitative method of inquiry, has led to the identification of the importance of the portfolio-development process. These findings may be useful for researchers who investigate graduate-level experiential learning, as well as administrators who manage, faculty who develop and instruct in, and students who participate in these programs.

The findings from the research presented here may help answer questions about the viability, credibility, quality, and impact on learning of the portfolio-development process. Programs designed to recognize and meet the educational needs of graduate-level learners must retain the highest standards of academic quality and integrity while addressing the challenges and opportunities involved in these processes.

This study addressed the utility of reflective practice, self-assessment, and the construction of portfolios as learning tools for students engaged in graduate-level experiential learning and for the assessment of that learning. It demonstrated how each learner brings her or his own previous experiences to bear on the learning process, and how the use of the reflection and portfolio development helps learners engage in self-assessment to move beyond experiences to measurable experiential learning.

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# APPENDIX A

## INITIAL INTERVIEW QUESTIONS

### Graduate Degree Program for Adults Using Portfolios

### to Demonstrate and Assess Learning

1. How did you first hear about the use of a portfolio as part of the Ph.D. program?

2. What were your thoughts about the use of a portfolio as a major program assessment tool when you heard about it?

3. When you attended orientation did it change your thoughts on using a portfolio as a major assessment tool? (If yes, how?)

4. What were your perceptions of your professional and personal accomplishments before beginning the portfolio development process?

5. What were your perceptions of your professional and personal accomplishments during the portfolio development process?

6. Would you describe the experience of reflecting on your accomplishments?

7. Did you keep a reflective journal or write reflective papers? (If yes, what did you learn?)

8. What were your perceptions of your professional and personal accomplishments after completing the portfolio?

9. Did the portfolio help you demonstrate your competency relative to the Ph.D. program's competencies? (If yes, how? If no, why?)

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10. What types of learning, if any, took place by developing a portfolio?

11. What were the benefits of developing a graduate-level competency portfolio?

12. What were the difficulties in developing a graduate-level competency portfolio?

13. What role did the presentation of your portfolio play in your learning process?

14. What is your perception of a degree that has a portfolio component vs. one that does not?

15. If you could do it all over again would you enroll in a Ph.D. program that used a portfolio?

## APPENDIX B

### GRADUATE DEGREE PROGRAM COMPETENCIES

1.  An effective teacher/instructor with skills in:

    (a)   Using, evaluating, and adapting instructional materials

    (b)   Instructional management to accommodate individual variability

    (c)   Developing instructional strategies

2.  A dynamic change agent with skills in:

    (a)   Planning and implementing change

    (b)   Developing human resources

    (c)   Public relations

3.  An effective organizer with skills in:

    (a)   Organizational development

    (b)   Allocating resources

    (c)   Interpreting laws, regulations, and policies

4.  A collaborative consultant with skills in:

    (a)   Effective communication

    (b)   Evaluation and assessment

    (c)   Problem-solving and decision-making

5.  A reflective researcher with skills in:

    (a)   Reading and evaluating research

    (b)   Conducting research

    (c)   Reporting research

6.     A competent scholar with a working knowledge of:

(a)     Educational foundations

(b)     Theories of learning and human development

(c)     Theories of leadership and management

(d)     Social systems, family dynamics, political issues, and bureaucratic structures

(e)     Educational technology and its application

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# David Winslow Rausch

**EDUCATION**

| | | | |
|---|---|---|---|
| Andrews University<br>Berrien Springs, Michigan | Ph.D. | Leadership | October 2007 |
| Samford University<br>Birmingham, Alabama | M.B.A. | Strategic Management | June 1995 |

**WORK EXPERIENCE**

| | | |
|---|---|---|
| The Austin Winslow Group<br>Boyne City, Michigan | Managing Director | Nov. 2000 - Present |
| Davenport University<br>Traverse City, Michigan | Academic Dean | Jan. 2003 – Jan. 2004 |
| Supply North Central Group Inc.<br>Ann Arbor, Michigan | Director/Chief Learning Officer *(9/00-10/01)*<br>President & CEO *(4/99-9/00)* | April 1999 - October 2001 |
| E & J Supply Inc.<br>Traverse City, Michigan | President & CEO *(7/98-7/99)*<br>Vice President (*10/97-7/98)* | October 1997 - July 1999 |
| NMG Consultants & Actuaries<br>Singapore, South Africa | Director - Financial Services Practice | July 1997 - July 1998 |
| Protective Life Corporation<br>Birmingham, Alabama | Managing Director - Asian Development | January 1996 - July 1997 |
| Samford University<br>Birmingham, Alabama | School of Business Lecturer<br>Director of Executive Education | January 1995 - April 1996 |
| SlaughterHanson Advertising<br>Birmingham, Alabama | Managing Director - Marketing | Nov. 1993 – Nov. 1994 |
| Protective Life Corporation (PLC)<br>Birmingham, Alabama | President & CEO - Protective Equity Services *(11/90-11/93)*<br>Vice President - PLC *(6/88-11/93)* | June 1988 – Nov. 1993 |
| Seafirst Bank / Safeco Insurance<br>Seattle, Washington | Vice President | January 1988 - June 1988 |
| Olympic Savings Bank<br>Seattle, Washington | Vice President | Dec. 1983 - January 1988 |
| Cosse International Securities<br>Seattle, Washington | Investment Program Specialist | Dec. 1982 - Dec. 1983 |
| United States Navy | E-5 Non-commissioned officer | June 1978 – Sept. 1982 |

**TEACHING EXPERIENCE**

| | | |
|---|---|---|
| Davenport University<br>Grand Rapids, Michigan | Instructor | 2000 - Present |
| University of Santo Amaro<br>Sao Paulo, Brazil | Visiting Instructor | 2002 to 2006 |
| Spring Arbor University<br>Spring Arbor, Michigan | Instructor | 2000 to 2003 |

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