A STUDY OF THE RELATIONSHIP BETWEEN WORK EXPERIENCE AND OCCUPATIONAL WORK ETHIC CHARACTERISTICS OF BACCALAUREATE NURSING STUDENTS

Loyd Kegans, B.A.A.S., M.B.A.

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APPROVED:

Michelle Wircenski, Major Professor
John Baier, Minor Professor
Jerry Wircenski, Committee Member
William Elieson, Chair of the Department of Technology and Cognition
M. Jean Keller, Dean of the College of Education
Sandra L. Terrell, Dean of the Robert B. Toulouse School of Graduate Studies

The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the work ethic characteristics of students in baccalaureate nursing programs at three regional universities in Texas, including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon. Work experience is the amount full-time or part-time on-the-job experience. Work ethic attributes are referred to as considerate, ambitious, dependable, and cooperative. Results generated in this study failed to reject the null hypotheses, which means that work experience, does not provide evidence of the ability to predict the development of work ethic characteristics in baccalaureate nursing students who participated in this research study. Knowledge generated in this study provided alternative directions for future research with respect to the relationship between work experiences and work ethic characteristics in nursing students. Such research may be useful to nursing educators and trainers in the design and delivery phases of the educational process for nurses.
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This is dedicated to Kathy, the most important person in my life, to whom I wish
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CHAPTER 1
INTRODUCTION

John Dewey (1938) believed that effective education should be based on the concept that learning is a product of past and present experiences. Lewin (1938), a cognitive theorist, believed that the “events of the day” influenced human behavior the most and that past events may also influence behavior if they were significant enough to influence “present and future beliefs and expectations” (Steers & Porter, 1996, p. 21). Lewin provided a useful link to Dewey’s philosophy on experiential learning through a formula that equates human behavior to influences. Lewin posited that human behavior is a function of the interaction between personal influences (i.e., family, friends) and environmental forces (i.e., society, culture, economy). If this is true, it could be said that desirable work ethic characteristics (i.e., being considerate, dependable, etc.) are shaped by personal influences and environmental forces. A conduit through which the development of desirable work ethic characteristics can be accomplished is through the introduction of teaching or training and development methods that utilize experiential learning. The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the occupational work ethic characteristics of baccalaureate nursing students.

Background

The United States is experiencing an acute shortage of nursing professionals, indicated by staff shortages, exhaustive shifts for nurses, and a demand for higher benefits, including wages and salaries (Inglis, 2004). Three separate studies addressed the critical nature of nursing shortages, including the following: a study by The Joint
Commission on Accreditation of Healthcare Organizations, which estimated that there are 126,000 unfilled nursing positions, turnover rates are staggering, and the attrition rate for hospital nurses is nearly 20%; (b) a study in the May 30, 2002, *New England Journal of Medicine*, which indicated that hospitals staffed with adequate numbers of registered nurses are safer and have fewer complications; and (c) a study conducted by the American Organization of Nurse Executives, which revealed that 60% of hospital nurses believe that staff reductions and turnover directly affect the quality of care (Bell, 2002).

What are the implications for education, training and development, and the employment sector when it comes to finding solutions to these problems?

According to Petty (1996), better educated people have higher levels of work ethic, which improves their probability of job success. The development of work ethic characteristics described by the Occupational Work Ethic Inventory (Petty, 1991) may shed a glimmer of light on how effectively the education and work experience background of nursing students prepares them for the realities of their workplace and profession.

Baccalaureate nursing programs at three regional universities in Texas, including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon, were chosen to represent the baccalaureate nursing student population for this study. Justification for selecting these three particular nursing programs is based on several control factors, including accreditation, student demographics, program characteristics, and the number of students in each program. All three programs are accredited by the Board of Nurse Examiners for the
State of Texas. Most nursing students in each program are local and have no previous experience as licensed nurses. A small number of remaining students are licensed nurses. Licensed nursing students include registered nurses (RN), who have received formal training and education in Associate Degree in Nursing (ADN) programs. Each program offers (a) a generic option for students who do not have a license to practice nursing to earn their Bachelor of Science in Nursing (BSN) degree and (b) the RN-to-BSN option for RNs. Each program has an average of 300 to 330 nursing students.

Significance of the Study

Research data generated by Aultman (1997) to address a smooth transition from school to the workplace indicated existing differences between the work ethic of employers and the work ethic possessed by community college students participating in cooperative, educational, and clinical training. Aultman’s research suggests the existence of a gap between employer and employee workplace expectations.

According to Needleman, Buerthaus, Mattke, Stewart, and Zelevinsky (2002), the difference between the level of educational preparation of nurses and the quality of patient outcomes has shown a clear relationship between nursing education and patient outcomes. According to Aiken, Clarke, Cheung, Sloane, and Silber (2003), fewer than half (43%) of the nurses in the United States hold baccalaureate or higher degrees. Numerous reasons based on the personal expectations of nursing students provide the rationale for pursuing a baccalaureate degree. Professional expectations possessed by baccalaureate nursing students may be related to their educational aspirations and desires for higher levels of job responsibility, involvement in decision-making activities,
higher salary levels, increased maturity, independence of thought and action, a sense of calling, identity, motivation, self-confidence, academic achievement, and clarity about goals. Whether or not these professional expectations are met depends on nursing students who are considerate, ambitious, dependable, and cooperative during their educational process and once they enter the workplace. Meeting professional expectations is also contingent on how nursing graduates relate to the same work ethic characteristics possessed by the organization that employs them, the group they work with, and the individuals who supervise them.

Theoretical Framework

This study is based on John Dewey’s (1938) proposal that education be designed on the basis of a theory of experience referred to as *experiential learning*. David A. Kolb, Professor of Organizational Behavior, Case Western Reserve University described experiential learning as “the process whereby knowledge is constructed through the transformation of experience” (as cited in Lashinger, 1990, p. 985). According to Neill (2005), Dewey believed that educators “must understand the nature of how humans have the experiences they do, in order to design effective education” (p. 1). Dewey’s theory of experience led to Kolb’s (1984) development of the experiential learning theory (ELT). Subject areas of research grounded in ELT have been conducted in the development of e-learning programs, evaluation of educational criteria, simulation and gaming, and curriculum development (Oxedine, Robinson, & Wilson, 2004). Several studies designed to test ELT have been conducted on the nursing population (Lashinger, 1990). One such study examined the different learning styles among
nurses in various roles and with different types of educational preparation to explore Kolb’s notion of the impact of environmental factors on learning style (Lashinger, 1990). Welch, Jefferies, Lyon, Boland, and Backer (2001) conducted a study in which an experiential learning assignment was integrated into an undergraduate nursing course. The purpose of the assignment was to integrate theory and research into nursing practice activity. Evaluation data indicated that the assignment was an appropriate way to prepare beginning nursing students for building knowledge about nursing as a scholarly discipline. Experiential learning has been applied in field courses, study abroad, and mentor-based internships (Millenbah, Campa, & Winterstein, 2004).

Dewey’s philosophy on experiential learning was addressed in his *Experience and Education* (1938). Dewey believed that education should be based on experience. According to Neill (2005),

Dewey’s theory of experience rested on two central tenets, continuity and interaction. Continuity refers to the notion that humans are sensitive to (or are affected by) experience. Interaction builds upon the notion of continuity and explains how past experience interacts with the present experience. (pp. 1-2)

Past experiences cannot be controlled but they can be understood. Neill also stated that “Dewey believed that such insight and knowledge can improve the design and delivery of knowledge and skills” (p. 2). Steers and Porter (1996) suggested that past experiences could have an impact on present experiences to the extent that they have an influential effect on the present experiences. Conversely, Kolb believed that
“experience is the starting point of knowledge acquisition and disregards the observations concerning the subjective reality of the learner” (Oxedine et al, 2004, p. 6). Steers and Porter stated, “In general, however, the cognitive theorists posited that it is the ‘events of the day’ that largely influences behavior; past events are important only to the extent that they affect present and future beliefs and expectations” (p.13). Aultman (1997) followed by stating, “Dewey felt that the greatest problem associated with experiential learning dealt with the selection of present experiences that would influence future actions” (p. 7).

Figure 1 is a representation of the experiential learning cycle and illustrates the four distinct modes of the ELT that must be integrated to gain experience and transform the experience into knowledge.

![Experiential learning cycle](image_url)

*Figure 1.* Experiential learning cycle (Oxedine et al., 2004). Modified with permission from Michael Orey, Editor, University of Georgia.
“The focus of the ELT is “experience, which serves as the main driving force in learning, as knowledge is constructed through the transformative reflection on one’s experience” (Oxedine et al., 2004, p. 1).

Integrating the four modes constitutes a cyclical process learners must go through for learning to take place; experience and abstract conceptualization involves the perception of experience, while critical reflection and active experimentation involve the transformation of the experience, which is followed by more critical reflection (Oxedine, et al., 2004). Something must be done with the perception of experience for the transformation of learning to take place (Baker, Jensen, & Kolb, 2002).

According to Dewey (1938), continuity between past experiences and present experiences can positively or negatively affect future learning experiences. When the concept of continuity is applied to this study it could be hypothesized that the development of desired work ethic characteristics is a function of past and present experiences in the workplace. Dewey noted that “the principle of continuity is applicable in every situation, but it is important for the educator to understand that the quality of the present experience influences the direction in which continuity applies” (p. 37). Continuity between past, present, and future learning experiences poses important implications for leaders, teachers, and trainers.

Dewey’s thoughts on the tenet of interaction are best explained by Neill (2005), who stated, “Interaction builds on the notion of continuity and explains how past experience interacts with the present situation, to create one’s present experience” (p.2).
Therefore, it can be said that present experience is a function of past (stored) experience interacting with the present situation to create an individual experience.

The ELT model supports Dewey’s (1938) philosophy on experience and clearly suggests the influence that past experiences have on the transformation of current situations into learning experiences that will have a positive affect on the quality of future learning situations.

The following questions represent the rationale for designing and conducting this study:

1. Is work experience a significant predictor for the development of work ethic characteristics in nursing students?
2. Are nursing students provided educational experiences conducive to the development of desired present and future work ethic characteristics?
3. At what juncture of the nursing program are these experiences gained?
4. What can be done to improve the continuity and integration of educational experiences in the design, delivery, and time phases of nursing education?

Purpose of the Study

The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the work ethic characteristics of students in baccalaureate nursing programs at three regional universities in Texas, including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon. Such research may help facilitate a positive transition from school to work, including the measurement of the
effect that learning activities have on the occupational work ethic characteristics of nursing students and an increased understanding and tolerance of realities pertaining to the work ethic expectations they will encounter.

Statement of the Problem

The shortage of nurses in health care brought on by high turnover and organizational downsizing creates higher levels of stress and lower quality patient care. Considering the fact that “approximately half of the knowledge a nurse possesses at graduation becomes obsolete within three to five years, with the half life of technology being even shorter” (Domino, 2005, p. 193), it appears that formal education and training play a significant role in the development of highly effective nurses needed in health care today.

Work experience increases knowledge and skills associated with work, motivation, values, and attitudes, including performance and participation in developmental activities (Tesluk & Jacobs, 1998). However, the need for nurses with higher levels of education is being driven by the expanding scope of responsibilities that require a broader base of knowledge and skills that enable nurses to cope and stay abreast with the constant and rapid changes occurring in health care. Determinations should be made regarding education and training methods that are conducive to the development and continued satisfied nursing work force. Until research designed to examine the contributions that work experience and education make to the development of desired work ethic behavior, further evaluation cannot be conducted with respect to the appropriateness and effectiveness of curriculum design and delivery.
The first part of the study incorporates linear regression analyses to determine the extent of statistically significant relationships, if any, between the independent variable, work experience, defined as the amount of full-time or part-time work experience, and the dependent variables representing the characteristics measured by the Occupational Work Ethic Inventory (OWEI). These characteristics are (a) considerate, (b) ambitious, (c) dependable, and (d) cooperative. Statistically significant relationships from the first part of the study resulted in a second part of the study. The objective of the second part of this study was to determine whether there are statistically significant differences between the work ethic characteristics and levels of classifications of nursing students referred to as freshman, sophomore, junior, or senior. Analysis of variance and post hoc analyses were performed to accomplish this objective.

Background information was collected to determine (a) if nursing students are registered or licensed nurses, (b) whether or not they have supervised other workers, (c) years of work experience, (d) student classification, (e) age, (f) gender, (g) ethnicity, and (h) category that best fits past occupation, medical related, nonmedical related, or both. Statistically significant relationships between work experience and each work ethic attribute as measured by the OWEI may provide new or further directions to nursing faculty or training and development specialist regarding future research.

**Research Hypotheses**

H01: There is no statistically significant relationship between work experience and the work ethic characteristic *considerate.*
Ho2: There is no statistically significant relationship between work experience and the work ethic characteristic *ambition*.

Ho3: There is no statistically significant relationship between work experience and the work ethic characteristic *dependable*.

Ho4: There is no statistically significant relationship between work experience and the work ethic characteristic *cooperative*.

**Delimitations**

This study was confined to surveying students attending baccalaureate nursing programs at three state regional universities in Texas accredited by the Board of Nurse Examiners for the State of Texas. This adds boundaries to the research and limits the school locations so that they were reasonably accessible to the researcher.

**Limitations**

Time required for participants to complete the survey was restricted to minimize their time away from class and training activities. Directors of the nursing programs in this study controlled when and where the surveys were administered.

**Definition of Terms**

*Ambition:* Performance descriptors of motivational drive or other personal career development characteristics (Petty, 2002).

*Considerate:* An individual’s personal characteristics that would facilitate good working relationships with other people and would contribute to job performance in a setting where cooperation was important (Petty, 2002).
Cooperative: Behavior exhibiting an unconditional willingness to work with others to accomplish job requirements (Petty, 2002).

Continuity: An individual’s sensitivity to the relationship between past and present experience (Neill, 2005).

Dependable: Meeting the minimum expectations for satisfactory job performance, but not necessarily include going beyond the call of duty (Petty, 2002).

Experiential learning: A process whereby knowledge is constructed through the transformation of experience (Lashinger, 1990).

Interaction: Relationship of past experience with the present experience (Neill, 2005).

Job challenge: Degree of challenge in a job that stimulates motivational drive (Morrison & Brantner, 1992).

Job complexity: Degree of knowledge and skills required to perform a job (Morrison & Brantner, 1992).

Job significance: The importance of a job’s mission and tasks (Morrison & Brantner, 1992).

Organizational pace: The availability of time required to accomplish job tasks and to work on personal development (Morrison & Brantner, 1992).

Organizational stage: Operational status of an organization that enhances or impedes learning central to its purpose (Morrison & Brantner, 1992).

Role complexity: Certain attitudes and behaviors consistent with a role that may increase job satisfaction or increase the amount of time that it takes to learn a job (Morrison & Brantner, 1992).
Work ethics: Displayed behavioral characteristics (work habits, attitudes, and values) based on an individual’s personal values and mores while working for income within a paid occupation (vs. sports, religious activities, hobbies, and other avocations) (Petty, 2002).

Work experience: Amount of full-time or part-time on-the-job work experience.

Summary

The present and future effectiveness of health care is dependent on the availability of nurses possessing the knowledge and skills needed to cope with severe shortages fed by factors such as organizational downsizing, high turnover, exhaustive shifts, and an increasing demand for affordable health care from an aging population that is growing. Nursing educators and trainers will have an important role in providing solutions designed to address this problem.

Chapter 1 provides a general overview of the proposed study. The chapter discussed the background for the study, the purpose of the study, statement of the problem, research hypotheses, significance of the study, delimitations and limitations, and definition of terms. Chapter 2 contains the review of literature addressing (a) the concept and construct of work experience; (b) occupational work ethic and its relationship to the context of work ethic system that guides employees’ behaviors and attitudes; and (c) a synthesis of work experience and occupational work ethic, including a brief discussion of the influence that baccalaureate nursing degree programs have on the work ethic of nursing students and the differences in work ethic expectations they are most likely to encounter once they enter the workplace.
CHAPTER 2
LITERATURE REVIEW

Past research has shown work experience to be a multidimensional, multilevel, and temporarily dynamic construct that commonly pertains to the functional areas of human resource management (Tesluk & Jacobs, 1998). Studies conducted from the 1970s through the 1990s addressed two components of work experience, including the accrued time and amount of work experience (referred to as quantitative factors) (e.g., McDaniel, Schmidt, & Hunter, 1988; Medoff & Abraham, 1980; Schmidt, Hunter, & Outerbridge, 1986; Schmidt, Hunter, Outerbridge, & Goff, 1988,), and types of work experience (referred to as qualitative factors) (e.g., DuBois & McKee, 1994; McCauley, Ruderman, Ohlott, & Morrow, 1994). Following these studies Quinones, Ford, and Teachout (1995) organized the work experience construct that explained the relationship between work experience and job performances. Tesluk and Jacobs (1998) followed with the development of a model of work experience by integrating the components of the work experience construct.

Scholarly writings (Bernstein, 1988; Cherrington; 1980, Yankelovich & Immerwahr, 1984) have shown that the concept of work ethics has evolved as a result of influences stemming from past and present religious, social, and economic changes. These contributions suggest that work ethics are not static concepts. The malleable nature of people’s work ethics presents evolving implications pertaining to their influence on today’s work environment. Examples of the foregoing statement include Occupational Work Ethics developed by Petty (1991) as part of a research project at the University of
Tennessee, Knoxville. Past research on work ethics has been extensively addressed and aided by Petty’s definitions of occupational work ethics. Research pertaining to occupational work ethics from the 1980s through the 1990s is reviewed in the areas of educational and training assessments, nontechnical work skills, vocational-technical education, health occupations, gender differences, adults in the work force, and education. The summary section of this review consists of a synthesis of work experience and work ethics and their proposed contribution to this study.

**Work Experience**

Work experience refers to job-related knowledge, skills, and abilities that are acquired over a period of time. Individuals are products molded by every experience in life. According to Tesluk and Jacobs (1988), “Our past and present experiences continuously affect the development and shape of knowledge, skills, attitudes, ambitions, beliefs, and behaviors” (p. 324).

Work experience is the central source of influence in models of performance and behavior (Tesluk & Jacobs, 1998). Traditionally, the measurement of work experience has been limited to the time measurements of seniority and tenure. The terms *seniority* and *tenure* mean much the same, according to Hoffman, Jacobs, and Gerras (1992). Seniority is described as the time an individual accumulates in certain units/roles or by negotiated entitlements and decisions based on length of service. Tenure also refers to the time an individual accumulates in certain units/roles such as managerial, job, or occupational tenure. Tenure and experience have been viewed in
the same light by several researchers (e.g., McDaniel et al. 1988; Schmidt et al., 1986; 1988).

Tesluk and Jacobs (1998) developed an integrated model to expand the dimensionality of work experience. This model is based on a foundation provided by Quinones et al. (1995) regarding a conceptual and meta-analytic review of the relationship between work experience and job performance. Tesluk and Jacobs discussed how qualitative and quantitative facets, which represent two of the three components that make up the overall context of work experience, may interact in order to describe the developmental punch offered by certain experiences. Interactions between quantitative and qualitative facets represent the third component of the work experience construct.

The quantitative component was described according to the measurement mode of time-based measures and amount measures. Time-based measures of experience are descriptions of the length of time spent performing a task or working in a job or organization (e.g., McDaniel et al., 1988; Medoff & Abraham, 1980, 1981; Schmidt et al., 1986, 1988). Data were quantitatively summarized on the relationship between job experience and job performance from a total sample of 16,058 (McDaniel et al., 1988). They found the relationship between job experience and job performance to be influenced by two variables: length of experience and job complexity. The highest correlations were obtained in populations with low mean levels of job experience and for jobs that place low levels of cognitive demands on employees. “More recent studies have supplemented tenure with measures of the number of times that a task or duty
has been performed” (Tesluk & Jacobs, 1998, p. 326). However, Tesluk and Jacobs indicated that time-based measures and amount measures provide little insight into the nature of experiences and represent a narrow perspective on the assessment of the work experience construct.

The qualitative component has been described as measures that distinguish experiences as type measures (Quinones et al., 1995). The type of work experience addresses the specific nature of situations pertaining to the richness of work experiences such as “the variety and breadth of tasks and responsibilities performed in a job, the types of challenges encountered in an assignment, or the complexity of a task” (Tesluk & Jacobs, 1998, p. 328). In a study conducted by Baltes, Reese, and Nesselroade (1977) development was considered to occur over the life span of the individual and come to from different sources. Tesluk and Jacobs (1998) referred to these sources as “on-the-job occurrences, the larger organizational context, and other relevant life events” (1998, p. 328). Air Force graduates of an 18-week technical training course were surveyed by Ford, Quinones, Sego, and Speer-Sora (1992) to examine their opportunity to perform trained tasks during the first 4 months following graduation. The opportunity to perform trained tasks was conceptualized according to the dimensions of breadth, activity, and type of tasks performed. Results indicated that the opportunities to perform trained tasks depended on supervisory attitudes, work-group support, trainee’s self-efficacy, and cognitive ability.

In another example of the qualitative component, Morrison and Brantner (1992) conducted a study to examine the influence a model of factors would have on a
population of experienced, lower level managers tasked with learning a new position. They found that time explained 27% of the variance in the facility with which a position was learned, and individual differences, job characteristics, context, and environmental factors explained an additional 24%. Role complexity, lack of job complexity, and individual differences such as self-efficacy and prior similar experience were strongly related to job learning. Contextual factors such as organizational climate, pace, and stage also were shown to influence job learning along with marital status. Job challenge and job significance were shown to enhance job learning the most.

Tesluk and Jacobs (1998) described interaction, the third component of work experience, according to the modes of intensity, timing, and levels of specificity. Quinones et al. (1995) used the term “developmental punch” to refer to the intensity of experiences. Dubois and McKee (1994) and McCall, Lombardo, and Morrison (1988) debated that experiences with developmental punch may have significant effects on subsequent work experiences in terms of learning, motivation, or performance. Quinones et al. supported the debate with the following statement:

Starting a business from scratch, or turning an ailing business around, are events that managers regard as important learning experiences. This view of experience, however, begs the question of whether one is talking about experience or knowledge. In this case, work experience is the event (e.g. starting a business) and knowledge is the outcome. It is possible that two individuals can be sent to start separate businesses and thus have equal experiences. However, the outcomes
can be dramatically different. It is possible that what is commonly referred to as quality in this situation is the outcome of experience (e.g., successful business startup) or perhaps the contextual factors that lead to a transfer from experience to outcome. (p. 905)

According to Tesluk and Jacobs (1988), timing of an experience “refers to when a work event occurs relative to a longer sequence of successive experiences such as those that characterize a career” (p. 329). In an analysis stemming from a study conducted by Katz (1978), the strength of the relationships between job satisfaction and the task dimensions of skill variety, task identity, task significance, autonomy, and job feedback depended on both job longevity and organizational longevity of the research participants.

In yet another study Katz (1978) investigated the influence of job longevity and the need for growth on the relationships between overall job satisfaction and the task characteristics of skill variety, identity, significance, autonomy, and feedback. Job longevity was divided into a learning stage, responsive stage, and unresponsive stage. Significant correlations were found between employees’ job satisfaction and all five task characteristics during the responsive stage using a survey administered to 3,085 public sector employees from four different government organizations.

Kozlowski and Hults (1987) studied interaction from the perspectives of technical updating and performance climates predicated on indications for earlier theoretical work. They concluded that different pressures for technological innovation, interobserver consensus, and relevant organizational context features provided a
framework for understanding factors that facilitate technical competence and performance. These studies suggest that people react differently to features in their work environment at various stages of their careers (Tesluk & Jacobs, 1998).

Differentiating work experience components is important to understanding the work experience construct, but some researchers think it is also important to consider the levels of specificity, illustrated in Figure 2, in order to understand the work experience construct more accurately (Quinones et al., 1995; Tesluk & Jacobs, 1998).

<table>
<thead>
<tr>
<th>Level of Specificity</th>
<th>Organization</th>
<th>Job</th>
<th>Task</th>
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<tr>
<td></td>
<td>Number of organizations</td>
<td>Organization tenure/seniority</td>
<td>Type of organization</td>
</tr>
<tr>
<td></td>
<td>Number of jobs or aggregate number of tasks</td>
<td>Job tenure/seniority</td>
<td>Job Complexity</td>
</tr>
<tr>
<td></td>
<td>Number of times performing task</td>
<td>Time on task</td>
<td>Task difficulty, complexity, criticality</td>
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Figure 2. A conceptual framework of work experience measures (Quinones et al., 1995). Used with permission from Blackwell Publishing.
Selecting and matching the level of specification to specific criteria using the most appropriate measure increases predictive power and serves to accelerate the development of the work experience construct (Tesluk & Jacobs, 1998). Levels of specification include the task, job, and organization (Quinones et al., 1995). However, it is important to analyze additional levels of specification like work groups.

Tesluk and Jacobs (1988) stated that “a person’s experience at the work group level of specificity can be assessed in terms of the number of different work groups and the type of teams (e.g., cross-functional problem-solving teams) in which they have participated” (1998, p. 330). A study conducted by Rentsch, Heffner, and Duffy (1994) supporting the preceding example investigated relationships of teamwork knowledge as a function of team experience. Assessment of teamwork knowledge structures or teamwork schema was accomplished using multidimensional scaling and “freehand” concept maps. Results indicated that team members with the most experience conceptualized teamwork more concisely and in more abstract terms than did team members with less experience. There was also greater convergence of the two assessment methods for team members with higher experience, which meant that team members with higher experience can consistently express their understanding of teamwork. Rentsch et al. indicated that the results of their study suggested that team training should be designed based on trainees’ prior work experiences and teamwork knowledge and that team member’s level of experience might be a factor in making team assignments. Tesluk and Jacobs stated that “adding levels of specification to work experience enhances its conceptualization, improves operationalization, and
establishes more direct and clear relationships with factors that contribute to the development of work experience and its outcomes” (p. 330).

Work Ethic

According to Bernstein (1988), the term Protestant work ethic has been traditionally associated with the religious origins of work ethic beginning with its consecration by Martin Luther and his contemporaries Zwingli and Calvin as the path to salvation. However, Bernstein also made a good argument supporting the premise that the development of work ethics resulted less from the influence of religion than from the secular effects of rapid increases in population, prices, and unemployment during the 1500s and 1600s. During the 20th century, research continually redefined the concept of work ethics to reflect “employee involvement, responsibility, and autonomy” (Bernstein, 1988, p. 11). Harvie (1991) posed two questions in the following statement that addressed intrapersonal and interpersonal values:

We take our values-what we believe is important-to work with us. So do those in our work group. As well, the organization has values that it encourages and practices. What happens when these values are not the same? On the other hand, if we hold similar values, will we be more effective at our work or healthier or more accepting of changes? Values are not merely attitudes towards situations or objects; they act as standards for one’s action, attitudes, evaluations, how one presents oneself, compares oneself, and attempts to influence others. (p. 1)
Yankelovich and Immerwahr (1984) wrote that the evolution of the American workplace has had both negative and positive effects on the American work ethic. They used the term *high-discretion job* to point out that prior to the industrial revolution Americans had to work hard out of sheer necessity due to the lack of opportunity to lessen the effort they had to put forth in their work. The transition spurred by the industrial revolution from the 1870s to the 1970s resulted in the creation of *low-discretion job* models designed to maximize work output while minimizing work input. Emphasis placed on specialization in structuring organizations and optimization of efficiency pertaining to work input influenced America’s rise to industrial dominance during the industrial revolution and may have led to a decline in Americans’ work ethic. According to Yankelovich and Immerwahr, managers and jobholders have failed to recognize that the workplace conditions that made low-discretion job models a long-term success no longer pertain to the workplace conditions. Examples they provided in supporting their beliefs included the perception of monetary rewards on the job as entitlements, not rewards, for good performance, changes in attitude as evidenced by a steady decline in respect for authority, affirmative action, and other standards.

Yankelovich and Immewahr discussed the term *carrot and stick* reward system as follows:

The stick was the fear that unemployment meant being totally destitute; the carrot was the prospect of high pay and all they can buy.

But neither of these elements is as potent as in the past. Because jobholders are somewhat cushioned against the punishments of the
workplace, they can afford to exercise more discretion over their own efforts. (p. 61)

The burden of financially funding centrally controlled organizations structured along lines of specialization has led to the development of a second industrial revolution based on information, services, and new technologies dependant on the key element of higher discretion in the workplace. Unlike the high-discretion job that preceded the industrial revolution with little or no opportunity to lessen the effort pertaining to work input, post-industrialized America has experienced a high-discretion job environment that has provided opportunity through the existence of timely information, services, and advances in technology. Implications associated with the notion of increased discretion in the workplace include a wide variety of concerns about the kind of work ethic required for such a setting. Bernstein (1988) addressed these concerns by stating that we must understand that a modern work force based on brains rather than brawn requires a corporate culture whose positive and participative values serve as milestones for the future. It is these work values, plus the personal talents supporting creative productivity, that form the twentieth century equivalent of the old work ethic. (p. 11)

The work ethic concept is multidimensional, intertwined with human behavior, and difficult to analyze. Cherrington (1980) wrote that the Protestant work ethic refers to a broad philosophy pertaining to different beliefs about work.

Work ethic is a component of employability skills (Petty, 1996). Employability skills are a function of behavior and attitudes; occupational work ethic represents behavioral
characteristics (work habits, attitudes, and values) stemming from an individual’s personal values while he or she works for income (Petty, 2002).

Hollenbeck (1984) documented the effects of positive and negative behavior in a study in which employers evaluated applicants on job readiness after watching a series of videotaped interviews. Results of the evaluations revealed that negative behaviors received lower evaluations than nonnegative behaviors. Negative behaviors included language, appearance, mannerisms, and attitude, and such behavior lowered employers’ assessments of education and training. Hollenbeck’s study also revealed that bad attitude had the greatest effect on an employers’ decision to hire.

Lankard (1990) referred to employability as the fifth basic skill. Employability skills are basic requirements for job success. Lankard described employability as “skills that enable an individual to acquire and keep a job” (p. 2). Good work habits, positive work attitudes, ethical behavior, and cooperation with others are the skills required to keep a job. In addition to skills required to keep a job, Lankard also iterated the importance of integrating employability skill training with academic and vocational skill training.

Overtoom (2000) defined employability skills as follows:

Employability skills are transferable core skills groups that represent essential functional and enabling knowledge, skills, and attitudes required by the 21st century workplace. They are necessary for career success at all levels of employment and for all levels of education. (p. 2)

Behavior and attitudes act as a systematic set of values that influence employees’ work ethic (Hatcher, 1993). Work ethic is a cultural norm formed in a society that
expects all employees to do a good job (Petty, 2002). It is through interaction with family, peers, and other adults that a person learns to place value on work (Hill, 1992). According to Petty (2002), work experience shapes the work attitudes of young people.

Hill and Petty (1995) reported that work ethics and employability skills are continually listed as necessary for job success, but efforts to address them in school systems have fallen short of anticipated outcomes. In order to address work ethics and employability skills, educators must decide upon the target objectives to be taught. Hill and Petty pointed out that employability skills, including work ethic, are important skills for prospective employees and employers. Employers anticipate that prospective employees, including new graduates, will obtain employability skills while attending secondary or postsecondary schools. This interdependent relationship between schools and employers as supplier and a customer must be recognized.

In a paper that addressed skills currently needed for employment Overtoom (2000) referred to The Occupational Information Network (O Net) as a comprehensive database of worker attributes and job characteristics published by the Department of Labor. O Net contains information about job characteristics and employability skills for each job title. O Net was developed to include work values as measured by the Minnesota Importance Questionnaire (MIQ) (McCloy et al., 1999). According to Petty (2002, Literature Section), “The MIQ measures relative importance of 21 vocationally relevant need reinforcers grouped into six value dimensions derived through factor analysis.” The six value dimensions identified by the MIQ (McCloy et al., 1999) include achievement, working conditions, recognition, relationships, support and independence.
O Net will replace the *Dictionary of Occupational Titles* (DOT) (Overtoom, 2000; Petty, 2002).

Affective skills focus on feelings, emotions, and attitudes and grapple with important psychological traits such as motivation, self-esteem, and socialization (McNabb, 1997). Work ethics are best learned when consistently taught using a combination of direct, indirect, and self-evaluative methods (Wells, 1998). Direct methods include of discussions of workplace culture, definitions of work ethics, and case studies. Indirect methods include the use of visiting guest professionals who model behaviors such as prompt arrival times, pride in their work, and loyalty to their employers.

Research conducted by Brauchle and Petty (1983) using the Work Attitudes Inventory (WAI) revealed five nontechnical work skills: ambition, self-control, organization, enthusiasm, and conscientiousness. The WAI was developed by Petty (1979) from a factor analysis of data previously collected from populations of industrial workers, industrial supervisors, and vocational educators. Brauchle and Petty concluded that the extent of students’ work attitude would provide the teaching focus needed to improve students’ attitudes. In another study using the Work Attitudes Inventory, the rated level of work attitudes of 113 secondary, community college, and hospital teachers and nine practitioners of health occupations revealed that practitioners rated affective work traits lower than teachers did (Petty, & Campbell, 1988).

Hall (1990) and Miller (1981) indicated that information on the work habits, values, and attitudes of vocational-technical students plays a critical role in the development of curriculum. Crosby and Petrosko (1988) suggested that vocational-technical teachers
must possess knowledge of student characteristics if they are to effectively use training methods and materials designed to address the affective domain. Petty (1995b) noted that practitioners and teachers are often significantly different with regards to their respective work attitudes. He also observed that “educators who suggest that they know the work ethic of their occupation or that of different groups/cultures may be mistaken” (p. 44). In consideration of differences with respect to work attitudes Petty (1995b) noted that “teacher educators have a responsibility to recognize potential differences in the occupational work ethic in different types of occupations so they can assist teachers in their occupational instruction” (p. 44).

The central theme of a study conducted by Petty (1995b) was to investigate different occupations to provide teachers with an analysis of information about the affective domain in order to address it effectively. In this study, Petty compared the work ethic of workers from private industry across standard occupational classifications. Petty used the Occupational Work Ethic Inventory (OWEI) consisting of four factors founded on literature about work attitudes, work values, and work habits that included working well with others, striving for advancement/success, being dependable, and acceptance of duty. The OWEI was developed as part of a research project at the University of Tennessee-Knoxville (Petty, 1991). The results of the study demonstrated that the self-rated perception of work ethic differs by occupations. Historical self-knowledge is a key to shaping the future of career development (Lankard, 1996). Assessments, survey instruments, inventories, and analysis of one’s own behavior are examples of self-evaluations (Ohio State University, 1995). Representatives of
employers can provide valuable information for the format and objectives of work ethics and other employability skills (Petty, 2002).

Petty and Campbell (1986) conducted a research study to examine whether the work attitudes of teachers in health occupations are perceived differently than are those of teachers in other occupations. The Work Attitudes Inventory (WAI) was the instrument used for this study. The population for the study consisted of vocational teachers in health occupations and other trades and industries from 30 counties of eastern Tennessee. The study results revealed some differences between teachers in health occupations and other trades and industries regarding how they perceive work attitudes. Petty (1983) observed, “These differences ought to be taken into account by: a) teacher trainers when delivering certification as well as other courses to these populations and  b) curriculum writers when developing instructional materials that address work attitudes” (p. 279). In a later study Petty and Campbell (1988) conducted similar research using the WAI. This study compared the work attitudes of a population made up of teachers in health occupations at public secondary schools, public community colleges, and hospital nursing schools to those of health practitioners working in their profession. Research results revealed a difference in work attitudes between teachers and practitioners. Of the five factors of work attitudes, health occupations practitioners scored significantly lower than the teachers in the areas of self-control, enthusiasm, and conscientiousness. Petty and Campbell (1988) indicated that differences yielded by their study revealed interesting issues for teachers in health occupations including the following:
1. Issues of interest in self control could be manifestations of the daily stresses to which practitioners are subject, and possibly that teachers demonstrate more self-control as a group.

2. Issues of enthusiasm may reflect a generalized self starting attitude towards work and work relationships or of being really interested and excited about one’s work.

3. Issues of conscientiousness seems to indicate a more favorable attitude toward this aspect of work than did for practitioners, it may also indicate that practitioners have a different view point on work than do teachers. (p. 63)

Using Petty’s (1991) OWEI, Hatcher (1995) conducted a survey of instructors and students in apprenticeship training to determine their levels of work ethics. A response rate of 90 % (3,822) was obtained. The results revealed high levels of work ethic among the participants, with no significant correlation between length of work and apprenticeship level. The largest difference was based on the maturity of instructors and apprentices.

In a previous study of students enrolled in secondary vocational programs in 15 schools representing 35 counties in East Tennessee, Allender (1993) categorized the work ethic of secondary vocational students into occupational training area, gender, grade level, hours worked per week, and socioeconomic status using the OWEI. Allender’s study revealed that senior level students exposed to 2 or 3 years of vocational training as well as instructors with industrial background possessed the strongest work ethic.
Petty (1995a) found that work ethic differed by occupation. The OWEI was used to collect data from 2,274 workers representing private and public industries. Participants identified their occupation as defined by the Standard Occupational Classification (SOC) system. Dependent variables for the study were identified as (a) working well with others; (b) striving for advancement/success; (c) being dependable; and (d) acceptance of duty. In comparisons of the five age groups, comparisons significant differences were revealed for workers 36 to 55 years of age. According to Petty (1995b) these data should be used in the educational system for students to evaluate their affective behaviors and traits for suitability to their chosen occupational field.

Differences were also found to exist between genders. Petty and Hill (1994) conducted a study to determine whether there were differences in the work ethics of women and men. The OWEI was used to measure work ethic on the subscales of dependable, ambitious, considerate, and cooperation. Data were collected from 2,279 female and male workers. Results revealed significant differences, with females indicating higher work ethic scores on all four subscales. Petty and Hill reiterated the importance of knowledge associated with differences in work ethic: “Differences detected for gender could affect the training methods and curriculum used by occupational educators in industry, military, and public training programs” (p. 71).

According to Katzell (1979), a person’s attitude toward work and work role is a manifestation of his or her persona defined “by what he or she does for a living” (p. 36). In a study conducted on the differences in work ethic as determined by the educational levels of participants Petty (1996) stated that “a part of this working
persona is educational level, which can become a central focus of a person’s life (p. 47). Petty indicated that educational achievement is as important as occupation regarding one’s personal status at social gatherings. The OWEI was used to measure the participant’s level of work ethic on the subscales of dependable, ambitious, considerate, and cooperative. Data were collected from 2,274 workers from private industries. The five levels of education included less than a high school diploma; high school degree or GED; 2 years of college or associate’s degree; bachelor’s degree; and some graduate work. A multivariate analysis yielded significant differences at the .05 level for all dimensions of the OWEI. The mean scores of respondents for all subscale variables were lower for the less than high school diploma participants than for participants in the higher four levels of education. The scores for the subscale variable ambitious were lower for high school degree or GED participants than for participants in the higher three levels of education; the same results were observed for 2 years of college or associate’s degree participants than for participants with some graduate work. The scores for the subscale variable cooperative were interesting in that they were higher for high school degree or GED participants than for participants with some graduate work. According to Petty (1996), “The most salient point of this study was the pattern of lower work ethic scores for the less educated” (p. 55). This study clearly emphasizes the important role education plays in the development of the work ethic. Petty also iterated the importance that educators should place on the positive effects of higher education on developing a strong work ethic, especially at the community college and 4-year institution levels.
Summary

Values that guide nursing student behaviors or attitudes are influenced by the individual, group, and organizational dynamics of the nursing program they attend. Beyer (1992) conducted a study to gain increased understanding, awareness, and insight concerning today’s baccalaureate nursing student. The focal point of the study was on beginning nursing students’ and fourth-level nursing students’ role conception of the professional nurse role and the coping mechanisms they utilized when experiencing role conflict. Beyer found a significant difference between nursing students’ ideal perception of the professional and service nurse role and their perception of how nursing is actually practiced. Beyer also found that first- and fourth-level nursing students utilize social support as their primary coping strategy. The results of Beyer’s study suggested a need for more extensive research in career decision making and a basic understanding of the professional nurse role and its interface with individual perception, career choice, career satisfaction, and career success. Beyer’s study supports Petty’s (1995b) suggestion that data on interpersonal skills, initiative, being dependable, and unconditional acceptance of duty should be used in the educational system for students to evaluate their affective behaviors and traits for suitability to their chosen occupational field.

Different organizations and units have very different work environments, and the work environment has a direct influence on the job satisfaction and retention of nurses (Tumulty, Jernigan, & Kohut, 1994). According to Graham (2000) the requirements for the attraction and retention of nurses include organizational support needed for nurses
to use their knowledge and skills to deliver quality care to patients and physicians who value and respect nurses more. According to Graham (2000), hospitals with much higher turnover rates reported that their administrators saw nursing as unimportant, inactive, and powerless.

Therefore, the purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the occupational work ethic characteristics of baccalaureate nursing students. Such research may help facilitate a positive transition from school to work, including the measurement of the effect that learning activities have on the occupational work ethic characteristics of nursing students, as well as an increased understanding and tolerance of realities pertaining to the work ethic expectations they will encounter.
CHAPTER 3
METHODS AND PROCEDURES

Introduction

The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the work ethic characteristics of students in baccalaureate nursing programs at three regional universities in Texas, including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon. Orientation to this study was based on the following research hypotheses as measured by the Occupational Work Ethic Inventory (OWEI):

Ho1: There is no statistically significant relationship between work experience and the work ethic characteristic *considerate*.

Ho2: There is no statistically significant relationship between work experience and the work ethic characteristic *ambition*.

Ho3: There is no statistically significant relationship between work experience and the work ethic characteristic *dependable*.

Ho4: There is no statistically significant relationship between work experience and the work ethic characteristic *cooperative*.

The organization of this chapter is predicated on the following discussion describing the population, sample, pilot study, instrument, research design, data collection procedure, and data analysis for this study.
Population

The population for this study consisted of an estimated 800 to 1,000 nursing students from university programs in the state of Texas with 4-year baccalaureate nursing programs. This population should yield a sufficient sample size to obtain statistically significant results. In reviewing programs of universities in the state, three schools met these population parameters: Midwestern State University, Tarleton State University, and West Texas A&M University.

Sample

According to the director of the nursing program at Tarleton State University the majority of nursing students enter the nursing program at the freshman level (E. Evans, personal communication, May 24, 2005). Remaining students in the population are career ladder students who are registered nurses (RN) or licensed vocational nurses (LVN) and have received some degree of formal training or education in Associate Degree in Nursing programs (ADN) or vocational/practical nursing diploma programs.

A 100 % sample was used for this study, and participants were stratified according to their classification level. The justification for the selection of this sampling method was based on the statement that inferential statistics can be used with data collected from a sample “if the sample is carefully conceptualized to represent a particular population” (Gall, Borg, & Gall, 1996, p. 229). This approach will ensure that participants from each stratum are included in the sample and that no stratum is missed (Hinkle, Wiersma, & Jurs, 1998). Student classification levels of freshman, sophomore, junior, and senior represented each stratum that make up the population.
The sample size for this study was based on two criteria: (a) the recommendation for survey sample size made by Seymour Sudman (Gall et al., 1996) and (b) a table for determining sample size from a given population (Krejcie & Morgan, 1970). According to Krejcie and Morgan the formula used to determine the sample size for this study includes the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841), the population size, the population proportion (assumed to be .50 since this would be the maximum sample size), and the degree of accuracy expressed as a proportion (.05). This formula yields a sample size of 260 to 278 for a population of 800 to 1,000 (Krejcie & Morgan, 1970, p. 608).

Correlational study samples must be reasonably homogenous to avoid obscuring the relationship between the variables by subjects who are widely divergent from the population norms (Gall et al., 1996). According to the sampling procedure proposed for this study, a minimum of 65 to 70 samples representing every classification level in each nursing program were collected. Directors representing each program identified for this study were contacted to solicit their participation.

Pilot Study

A pilot study was conducted utilizing the OWEI survey. The primary purpose of a pilot study is to identify, modify, or eliminate ambiguous questions and to insure that questions are clear and articulate. The OWEI was administered to 28 business students with the goal of evaluating the appropriateness of the demographic information included in the questionnaire and the development of the analysis process. Following the pilot study the demographic section of the survey was modified to more accurately
reflect the background information of the population in this study. Modifications to the demographic information section of the OWEI were made with the permission of the developer of the survey. The average amount of time required to complete the OWEI survey was approximately 15 minutes. Data collected as part of the pilot study were included in the findings of the study.

Instrument

The instrument for this study is the OWEI. Developed by Petty (1991), the 50-item OWEI survey assesses the intrinsic aspect of the workplace. Work ethic factors measured with this instrument provide a research base for educators who are preparing students for their transition from school to work. Validation of the OWEI was achieved with over 2,279 participants representing employees from six occupational groups (Petty & Hill, 1994). The sample for the most recent study consisted of 1,151 employees in private and public organizations in the Southeast (Hill & Petty, 1995).

Previous pilot studies have yielded good reliability, with an alpha correlation of 0.95. In additional studies, the alpha coefficient ranged from 0.90 (Hatcher, 1993) to 0.95 (Hill, 1992). Content validity was established by choosing items from a review of literature on work attitudes, work values, and work habits. The items were reviewed by a panel of experts. Another panel of experts sorted the original items into categories. This process was repeated until consensus was reached. The four categories were (a) dependable, (b) ambitious, (c) considerate, and (d) cooperative. Factor analytic studies were conducted to establish the construct validity of the OWEI.
Principal components were identified using an orthogonal analysis that yielded four factors (Petty, 2002). An orthogonal analysis is a “procedure that is used to generate factors that are uncorrelated with each other” (Gall et al., 1996, p. 765). The four variables (work ethic characteristics) that were generated included (a) interpersonal skills (considerate), (b) initiative (ambitious), (c) being dependable (dependable), and (d) unconditional acceptance of duty (cooperative). Content analysis was conducted to find the most concise list of descriptive items that would represent the data collected. Descriptive items are positive or negative (reversed) single words or simple 2-item statements that can be more easily understood (Petty, 1996). There are 14 items on the considerate scale, 12 items on the ambitious scale, 16 items on the dependable scale, and 8 items on the cooperative scale. These data should be used in the educational system for students to evaluate their affective behaviors and traits for suitability to their chosen field (Petty, 1995b).

The work ethic characteristic considerate is comprised of items pertaining to relationships with other people. Items indicative of a person possessing the skills include appreciative; cheerful; considerate; courteous; devious (reversed item); friendly; helpful; hostile (reversed item); likeable; modest; pleasant; rude (reversed item); selfish (reversed item); well groomed.

The work ethic characteristic ambition identifies a person who is ambitious; apathetic (reversed item); conscientious; enthusiastic; hard working; independent; initiating; irresponsible (reversed item); negligent (reversed item); persevering; persistent; resourceful.
The work ethic characteristic *dependable* refers to characteristics associated with a person who is accurate; careful; dedicated; dependable; depressed (reversed item); devoted; effective; efficient; emotionally stable; honest; loyal; patient; productive; punctual; reliable; tardy (reversed item).

The work ethic characteristic *cooperative* describes a person who is adaptable; careless (reversed item); cooperative; following regulations; following directions; orderly; perceptive; stubborn (reversed item).

Research Design

The survey method formed the basis for the collection of data in this study. The purpose and rationale for this form of research design are to generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of the population (Creswell, 1994). A cross-sectional sample was used in this study. “In a cross sectional design the data are obtained at one point in time, but from groups of different ages or at different stages of development” (Gall et al., 1996, p. 379). The OWEI questionnaire was used to collect data from baccalaureate nursing students who are at different stages of development in their professional and educational careers.

Data Collection Procedures

The OWEI was administered to nursing students presently attending baccalaureate nursing programs at three state regional institutions in Texas, including Midwestern State University, Tarleton State University, and West Texas A&M University. The OWEI is a self-reporting questionnaire that was administered in classroom settings to nursing
students on a face-to-face basis by the primary researcher of this study to maximize the number of responses representing each classification level of nursing students. Approval for the administration of the OWEI and class schedules was obtained from each program director. Administration of the OWEI was coordinated with each course instructor. Nursing students choosing to participate in the survey received instructions regarding the procedure for doing so. The cost and time resulting from administering a survey to a widely dispersed population such as the three regional universities identified in this study were much less than would be absorbed using another method (Gall et al., 1996).

Data Analysis

Information was reported on the number of survey returns. This information has been presented in tabular form, with special attention to the number of respondents in each of the four cross-sections. Additionally a descriptive analysis was conducted on the independent and dependent variables (see Table 2).

The first part of the study incorporates regression analyses to determine the extent, if any, of a statistically significant relationship between the independent variable work experiences, defined as the amount of full-time or part-time work experience, and the dependent variables representing the work ethic characteristics measured by the OWEI. These characteristics are (a) considerate, (b) ambitious, (c) dependable, and (d) cooperative. Statistically significant relationships from the first part of the study resulted in a second part of the study. The objective of the second part of this study was to determine whether there are statistically significant differences between the
work ethic characteristics and levels of classifications of nursing students referred to as freshman, sophomore, junior, or senior. Analysis of variance and post hoc analyses were performed to accomplish this objective.

![Diagram of independent and dependent variables]

**Figure 3.** Independent and dependent variables.

Background information was collected to determine (a) if nursing students are registered or licensed nurses, (b) whether or not they have supervised other workers, (c) years of work experience, (d) student classification, (e) age, (f) gender, (g) ethnicity, and (h) category that best fit past occupation, medical related, nonmedical related, or both. Significant statistical relationships between work experience and each work ethic attribute of the OWEI may provide new or further directions to nursing faculty or training and development specialist regarding future research.

**Summary**

Chapter 3 described the population, sample, and research design. A pilot study, instrument, data collection and analysis procedures were also discussed.
The population for this study consisted of an estimated 800 to 1,000 nursing students from four classification levels (freshman, sophomore, junior, and senior) of baccalaureate nursing programs at Midwestern State University, Tarleton State University, and West Texas A&M University. The sample representing the population described for this study was chosen using a 100% sample method according to the classification level of participating nursing students. The sample size for a population of 800 to 1,000 is 260 to 278. The survey method represents the research design and formed the basis for the collection of data in this study.

A pilot study was conducted to identify, modify, or eliminate ambiguous questions pertaining to background information to insure that questions were clear and articulate. The instrument for this study was the OWEI developed by Petty (1991). The OWEI was administered to nursing students presently attending baccalaureate nursing programs identified for this study. Information has been reported on the number of survey returns and nonreturns. This information has been presented in table form with special attention to the number of respondents and nonrespondents. Additionally, descriptive and inferential analyses were conducted on the independent and dependent variables.

Chapter 4 addresses study findings, and chapter 5 addresses a summary of the findings, conclusions, and recommendations.
CHAPTER 4

RESULTS

The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the work ethic characteristics, as measured by the Occupational Work Ethic Inventory (OWEI), of students in baccalaureate nursing programs at three regional universities in Texas including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon. This chapter is organized into the following five sections: (a) OWEI Reliability, (b) Sample Characteristics, (c) Descriptive Analysis, (d) Analyses of Hypotheses, and (e) Summary.

OWEI Reliability

The reliability of OWEI data collected for this study was measured using Chronbach’s alpha, split-half, and Spearman-Brown methods. Chronbach’s alpha is a measure of internal consistency according to alpha coefficients ranging in value from 0 to 1. Based on a sample size of 500, the OWEI achieved an estimated correlation alpha of .86. Internal consistency ranged from a split-half reliability of .822 to a corrected Spearman-Brown reliability of .834. Nunnaly (1978) indicated that 0.7 is an acceptable reliability in most cases. Estimated reliability is connected to the data computed for this study using the OWEI and is not based on the reliability results generated by the OWEI in previous studies. Estimate reliability correlations of .95 have been reported in previous studies using the OWEI (e.g., Petty & Hill, 1994; Petty, 1995, 1996).
Sample Characteristics

A total of 513 nursing students representing a population of approximately 900 participated in this study. Thirteen surveys were incomplete and discarded, resulting in 56% participation. The distribution of nursing students at Midwestern State University, Tarleton State University, and West Texas A&M University who participated in the survey was 175 (34%), 194 (38%), and 144 (28%), respectively. Nursing students classified as freshman are required to satisfy core educational requirements before they are enrolled in nursing courses. Therefore, freshman nursing students were not available to participate in the survey due to scheduling problems.

Demographic information was collected on the professional, educational, and personal backgrounds of participants (see Table 1).

Table 1

*Demographic Characteristics of the Sample (N=500)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered or Licensed Vocational Nurse</td>
<td>Yes</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>479</td>
<td>96</td>
</tr>
<tr>
<td>Supervised other workers</td>
<td>Yes</td>
<td>171</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>329</td>
<td>66</td>
</tr>
</tbody>
</table>
Table 1 (*continued*).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time or part-time work experience</td>
<td>&lt; 1 year</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>1-2 years</td>
<td>80</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>3-8 years</td>
<td>237</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>&gt; 8 years</td>
<td>135</td>
<td>27</td>
</tr>
<tr>
<td>Category past occupation</td>
<td>Medical</td>
<td>182</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Non-medical</td>
<td>285</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>College Classification</td>
<td>Sophomore</td>
<td>97</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Junior</td>
<td>212</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Senior</td>
<td>191</td>
<td>39</td>
</tr>
<tr>
<td>Age</td>
<td>19 or under</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>20-26</td>
<td>313</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>27-35</td>
<td>98</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>36-55</td>
<td>62</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>&gt; 55</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>428</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>72</td>
<td>14</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 (continued).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Response</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>African-American</td>
<td>59</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>28</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Caucasian</td>
<td>352</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>39</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Native-American</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>19</td>
<td>4</td>
</tr>
</tbody>
</table>

Descriptive Analysis

The survey method formed the basis for the collection of data in this study. The independent variables for this study were work experience and student classification. Dependent variables consisted of four work ethic characteristics including *considerate, ambitious, dependable,* and *cooperative.* The purpose and rational for using this form of research design was to generalize from a sample to a population so that inferences could be made about the work ethic characteristics of the population of nursing students identified in this study. The OWEI was used to collect data from baccalaureate nursing students who were at different stages of development in their professional and educational careers. Data were coded and entered by the primary researcher in this study and analyzed using SPSS 13.0. Descriptive analysis scores for the dependent variables (work ethic characteristics) measured by the OWEI are provided in Table 2.
Table 2

*Descriptive Results for OWEI Characteristics*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>M</th>
<th>R</th>
<th>Min</th>
<th>Max</th>
<th>SD</th>
<th>SE</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considerate</td>
<td>4.95</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>.419</td>
<td>.019</td>
<td>-.418</td>
<td>3.234</td>
<td>500</td>
</tr>
<tr>
<td>Ambition</td>
<td>5.08</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>.511</td>
<td>.023</td>
<td>-0.630</td>
<td>3.475</td>
<td>500</td>
</tr>
<tr>
<td>Dependable</td>
<td>5.60</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>.451</td>
<td>.020</td>
<td>-.448</td>
<td>8.031</td>
<td>500</td>
</tr>
<tr>
<td>Cooperative</td>
<td>5.21</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>.436</td>
<td>.020</td>
<td>-0.112</td>
<td>2.135</td>
<td>500</td>
</tr>
</tbody>
</table>

All four distributions that describe the characteristics in Table 2 were negatively skewed. Negatively skewed distributions indicate scores that are clustered between the middle and upper end of the score continuum with a tail that points toward the lower end of the score continuum. These distributions, if they were normal, would indicate scores that would be clustered near the middle of the score continuum with tails gradually and symmetrically decreasing in frequency in both directions away from the middle area of scores. Coefficients of skewness falling between -1.0 and +1.0 are not considered to be extreme according to (Huck, 2004). The shapes of all four distributions are leptokurtic. Leptokurtic distributions are indicated by coefficients of kurtosis that exceed scores greater than 2.0 (Huck, 2004) and show scores that were tightly (closely) distributed about the mean score for the distribution. Distributions that are overly peaked (tall) are considered to be leptokurtic when compared to distributions that are platykurtic (flat) or normal distributions that are neither overly peaked nor flat.
The first dependent variable, *considerate*, pertains to descriptive items measured by
the OWEI and describes relationships with other people. Descriptive items are
measured on a 7-point Likert scale ranging from 1 (*Never*) to 7 (*Always*). Items that
describe a person who is considerate include: appreciative; cheerful; considerate;
courteous; devious (reversed item); friendly; helpful; hostile (reversed item); likeable;
modest; pleasant; rude (reversed item); selfish (reversed item); well groomed. The
scores for the dependent variable *considerate* correspond to participants who evaluated
themselves as usually being considerate in their relations with other people. Figure 4
represents the distribution of responses for this variable. The distribution was
negatively skewed (–.418) and moderately leptokurtic (3.234). The mean of 4.95
resulted from responses ranging from 2 to 6. The majority of responses were
distributed along the middle to the upper end of the scale with a standard deviation of
.419, resulting in a confidence interval of 4.95 ± .037, with the sample probability set at
95 %.

![Histogram of Considerate Scores](image.png)

Figure 4. Distribution of the dependent variable considerate.
The second dependent variable, *ambition*, describes a person who is ambitious; apathetic (reversed item); conscientious; enthusiastic; hard working; independent; initiating; irresponsible (reversed item); negligent (reversed item); persevering; persistent; resourceful. The scores for the dependent variable *ambition* correspond to participants who evaluated themselves as usually possessing this characteristic. Figure 5 represents the distribution of responses for this variable. The distribution was negatively skewed (– .630) and moderately leptokurtic (3.475). The mean of 5.08 resulted from responses ranging from 2 to 6. The majority of responses were distributed along the middle to the upper end of the scale, with a standard deviation of .511, resulting in a confidence interval of 5.08 ± .045, with the sample probability set at 95%.

*Figure 5.* Distribution of the dependent variable ambition.
The third dependent variable, *dependable*, describes a person who is accurate; careful; dedicated; dependable; depressed (reversed item); devoted; effective; efficient; emotionally stable; honest; loyal; patient; productive; punctual; reliable; tardy (reversed item). The scores for the dependent variable *dependable* correspond to participants who evaluated themselves as sometimes to almost always possessing this characteristic. Figure 6 represents the distribution of responses for this variable. The distribution exhibited an extreme negative skew (–1.448) and was highly leptokurtic (8.031). The mean of 5.6 resulted in responses ranging from 2 to 7. The majority of responses were distributed along the upper-middle of the scale, with a standard deviation of .451 resulting in a confidence interval of $5.6 \pm .039$ with the sample probability set a 95 percent.

![Histogram of Dependent Variable Dependable](image)

*Figure 6.* Distribution of the dependent variable dependable.
The fourth dependent variable, cooperative, describes a person who is adaptable; careless (reversed item); cooperative; following regulations; following directions; orderly; perceptive; stubborn (reversed item). The scores for the dependent variable cooperative correspond to participants who evaluated themselves as sometimes to almost always possessing this characteristic. Figure 7 represents the distribution of responses for this variable. The distribution exhibited a small negative skew (–.112), was marginally leptokurtic (2.135), and approximated a normal distribution. The mean of 5.21 resulted in responses ranging from 3 to 7. The majority of responses were distributed along the lower-middle to upper-middle of the scale, with a standard deviation of .436, resulting in a confidence interval of 5.21 ± .039 with the sample probability set at 95%.

Figure 7. Distribution for the dependent variable cooperative.
Analyses of Hypotheses

Part 1 of the Study

A linear regression analysis was used to measure the relationship between work experience and each work ethic characteristic. Regression scores are provided in Table 3. Pearson’s correlation coefficient (r) provided the basis for measuring the level of statistical significance. Correlation coefficients ranging between -1.0 and +1.0 indicate different degrees of negative and positive correlations between variables being compared (Hinkle, et al., 1998). A correlation coefficient of .00 indicates that there is no relationship between the variables being compared. Squared correlation coefficients (R²), referred to as effect size, represent the percentage of each dependent variable (work ethic characteristics) that can be explained by the predictor variable work experience.

Although scatterplots show some semblance of correlation, statistically significant relationships are not indicated between the predictor variable, work experience, and the dependent variables considerate, ambition, dependable, and cooperative (see Figures 8-11). Scores (plots) on a scatterplot can indicate different degrees and directions of correlations that are positive, negative, or nonexistent. Scatterplots indicating a relationship between the variables being compared would show participants’ scores grouped closely together on or near the straight diagonal line referred to as the regression line.
Table 3

Regression Results for OWEI Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>r</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>F</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considerate</td>
<td>-.076</td>
<td>.006</td>
<td>.004</td>
<td>2.891</td>
<td>.090</td>
</tr>
<tr>
<td>Ambition</td>
<td>.089</td>
<td>.008</td>
<td>.006</td>
<td>3.976</td>
<td>.047</td>
</tr>
<tr>
<td>Dependable</td>
<td>.067</td>
<td>.004</td>
<td>.002</td>
<td>2.235</td>
<td>.136</td>
</tr>
<tr>
<td>Cooperative</td>
<td>.054</td>
<td>.003</td>
<td>.001</td>
<td>1.479</td>
<td>.225</td>
</tr>
</tbody>
</table>

Ho1: There is no statistically significant relationship between work experience and the work ethic characteristic *considerate*.

Linear regression results indicate a very small negative correlation, but not a statistically significant relationship (see Figure 8). An $R^2$ value of .006, and an adjusted $R^2$ value of .004 indicates an extremely low effect size (>1%) and does not allow for the null hypotheses Ho1 to be rejected (Huck, 2000). The results also indicate that the null hypothesis Ho1 fails to be rejected with an $F$ value of 2.891 that led to a $p$ value of .090. Therefore, work experience does not provide evidence of the ability to predict the development of the work ethic characteristic *considerate* in baccalaureate nursing students who participated in this research study.
Figure 8. Scatterplot of the independent variable work experience and dependent variable considerate.

Ho2: There is no statistically significant relationship between work experience and the work ethic characteristic ambition.

Linear regression results indicate a very small positive correlation, but not a statistically significant relationship (see Figure 9). An $R^2$ value of .008 and an adjusted $R^2$ value of .006 also indicates an extremely low effect size (>1%). However, the results do indicate a statistically significant difference between work experience and ambition with an $F$ value of 3.976 that resulted in a $p$-value of .047. Criteria justifying the rejection of the null hypotheses in this study are based on a $p$<.05. In accordance with analysis procedures for this study, an analysis of variance was called for in Part 2 of the study between the predictor variable classification and the occupational work ethic characteristic ambition.
Figure 9. Scatterplot of the independent variable work experience and dependent variable ambition.

Ho3: There is no statistically significant relationship between work experience and the work ethic characteristic dependable.

Linear regression results indicate a small positive correlation, but not a statistically significant relationship (see Figure 10). An $R^2$ value of .004 and an adjusted $R^2$ value of .002 indicate an extremely low effect size (>1%), and does not allow for the null hypothesis Ho3 to be rejected. The results also indicate that Ho3 fails to be rejected with an $F$ value of 2.235 that led to a $p$ value of .136. Therefore, the predictor variable work experience does not provide evidence of the ability to predict the development of the occupational work ethic characteristic dependable in baccalaureate nursing students who participated in this research study.
Figure 10. Scatterplot of the independent variable work experience and dependent variable dependable.

Ho4: There is no statistically significant relationship between work experience and the occupational work ethic characteristic cooperation.

Linear regression results indicate a small negative correlation, but not a statistically significant relationship (see Figure 11). An $R^2$ value of .003 and an adjusted $R^2$ value of .001 indicates an extremely low effect size (>1%), and does not allow for the null hypothesis Ho4 to be rejected. The results also indicate that Ho4 fails to be rejected with an $F$ value of 1.479 that led to a $p$ value of .225. Therefore, the predictor variable work experience does not provide evidence of the ability to predict the development of the occupational work ethic characteristic cooperation in baccalaureate nursing students who participated in this research study.
Figure 11. Scatterplot of the independent variable work experience and dependent variable cooperative.

Part 2 of the Study

Ho5: There is no statistically significant difference between classification and the occupational work ethic characteristic ambition.

In accordance with the data analysis procedures for this study, statistically significant relationships from the first part of the study would be compared to each year of nursing students’ classification referred to as freshman, sophomore, junior, or senior to identify whether there are junctures in nursing programs that may influence the development of work ethic characteristics. As in Part 1 of the study, freshmen nursing students were not available to participate in the survey. Nursing students classified as freshman are required to satisfy core educational requirements before they are enrolled in nursing courses. Results in Part 1 of this study indicate a statistically significant difference between work experience and ambition with an $F$ value of 3.976 that resulted
in a p value of .047. An analysis of variance was conducted in Part 2 of the study between the groups of classification and the work ethic characteristic ambition (see Table 4) and was followed up with post hoc test to compare the mean differences of student classifications and homogeneity among the classifications.

Table 4

<table>
<thead>
<tr>
<th>Classification</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>( \eta^2 )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between the groups</td>
<td>1.238</td>
<td>2</td>
<td>2.38</td>
<td>.009</td>
<td>.093</td>
</tr>
<tr>
<td>Within groups</td>
<td>129.046</td>
<td>497</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130.285</td>
<td>499</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With a p value of .093, the mean for each level of classification (sophomore, junior, and senior) did not provide evidence that it was statistically significantly different when compared to the mean of the occupational work ethic characteristic ambition in baccalaureate nursing students who participated in this research study (see Figure 12). An effect size value of .009 (>1%) also indicates that classification has very little effect, if any at all, on each work ethic characteristic.

Summary

Chapter 4 provided sample characteristics, descriptive analysis, and analyses of hypotheses based on data collected from 500 sophomore, junior, and senior nursing
students attending baccalaureate nursing programs at Midwestern State University, Tarleton State University, and West Texas A&M University.

Statistically significant relationships were not found in the null hypotheses Ho1, Ho2, Ho3, and Ho4. Scoring results in the first part of this study failed to reject Ho1, Ho3, and Ho4. A statistical significant difference was found in Ho2 that resulted from a p value of .047. In Part 2 of this study an analysis of variance was conducted to test for statistically significant differences between the groups of classification (sophomore, junior, and senior) and the work ethic characteristic ambition. Statistically significant differences were not found and resulted in the failure to reject Ho5. Therefore, a post hoc test for homogeneity between the classifications was not required.

Chapter 5 addresses the discussion, conclusions, and recommendations for this study.
CHAPTER 5
FINDINGS AND RECOMMENDATIONS

The primary purpose of this study was to test the theory of experiential learning by measuring to what extent work experience predicts the work ethic characteristics of students in baccalaureate nursing programs at three regional universities in Texas, including Midwestern State University in Wichita Falls, Tarleton State University in Stephenville, and West Texas A&M University in Canyon.

The goal of this study was to show that work experience predicts work ethic characteristics. The researcher expected to find baccalaureate nursing students possessing little or no work experience to be low on work ethic characteristics described and measured by the Occupational Work Ethic Inventory (OWEI). While the researcher believes that work ethic characteristics are influenced by work experience, previous research has also shown that work experience increases knowledge and skills associated with work, motivation, values, and attitudes including performance and participation in developmental activities (Tesluk & Jacobs, 1998).

The expanding scope of responsibilities that require a broader base of knowledge and skills, thus enabling nurses to cope and stay abreast with the rapid changes taking place in health care, creates a need for nurses with higher levels of education than in the past. Implications linking education and training to the development of the nursing work force include (a) educational experiences conducive to the development of desired present and future work ethic characteristics, (b) junctures of nursing programs where work ethic experiences are gained, and (c) objectives
leading to the improvement of continuity and integration of educational experiences in the design, delivery, and time phases of nursing education. Until research designed to examine the contributions that work experience and education make to the development of desired work ethic behavior, further evaluation cannot be conducted with respect to the appropriateness and effectiveness of curriculum design and delivery.

The data collection and analysis phases for this study began with the administration of a survey made up of 50 descriptor items used to describe each of the four work ethic characteristics. In the first part of the study, data were collected that pertained to the participants’ amount of work experience (time on the job) and work ethic characteristics. The objective of the first part of the study was to determine to what extent work experience predicts work ethic characteristics in nursing students. Any indication of statistically significant relationship between work experience and each work ethic characteristic, according to the OWEI, would result in the need for the second part of the study to be carried out. The objective of the second part of this study was to test for statistical significant differences between the levels of classification and work ethic characteristics. An analysis of variance (ANOVA) and post hoc tests were utilized to accomplish this objective.

Findings

Results of this study are based on the compilation of responses resulting from the administration of the OWEI and are used to address the following hypotheses in the order they are presented.
Ho1: There is no statistically significant relationship between work experience and the work ethic characteristic *considerate*.

Results generated in this study failed to reject the null hypothesis, which means that work experience does not provide evidence of the ability to predict the development of the work ethic characteristic *considerate* in baccalaureate nursing students who participated in this research study. A person who is considerate is appreciative, cheerful, considerate, courteous, friendly, helpful, likeable, modest, pleasant, and well groomed.

Ho2: There is no statistically significant relationship between work experience and the work ethic characteristic *ambition*.

Results generated in this study indicate that work experience and the work ethic characteristic *ambition* are not statistically significantly related. The effect size indicated by $R^2$ is extremely small and suggests that work experience does not provide evidence of the ability to predict the development of the work ethic characteristic *ambition* in baccalaureate nursing students who participated in this research study. A person who is ambitious is conscientious, enthusiastic, hard working, independent, initiating, persevering, persistent, and resourceful. However, a $p$ value of .047 justified the rejection of this null hypothesis. In accordance with analysis procedures for this study, an analysis of variance was called for in Part 2 of the study between the independent variable, *classification*, and the dependent variable, *ambition*. This development necessitated the need for an additional null hypothesis (see Ho5).
Ho3: There is no statistically significant relationship between work experience and the work ethic characteristic *dependable*.

Data collected and analyzed for this study do not indicate a statistically significant relationship between work experience and the work ethic characteristic *dependable*. These results failed to reject the null hypothesis, which means that work experience does not provide evidence of the ability to predict the development of the work ethic characteristic *dependable* in baccalaureate nursing students who participated in this research study. A person who is dependable is accurate, careful, dedicated, dependable, devoted, effective, efficient, emotionally stable, honest, loyal, patient, productive, punctual, and reliable.

Ho4: There is no statistically significant relationship between work experience and the work ethic characteristic *cooperative*.

Data collected and analyzed for this study do not indicate a statistically significant relationship between work experience and the work ethic characteristic *cooperative*. These results failed to reject the null hypothesis, which means that work experience does not provide evidence of the ability to predict the development of the work ethic characteristic *cooperative* in baccalaureate nursing students who participated in this research study. A person who is cooperative is adaptable, cooperative, follows regulations, following directions, orderly, and perceptive.

Ho5: There is no statistically significant difference between classification and the work ethic characteristic *ambition*. 
The objective of the second part of this study was to test for statistical significant differences between the levels of classification (sophomores, juniors, and seniors) and the work ethic characteristic ambition. Analysis of variance and post hoc tests were utilized to accomplish this objective. Test results indicated a failure to reject the null hypothesis with a $p$-value of .093 and an effect size of .009, which means that there is no statistically significant difference between classification and the work ethic characteristic cooperative in baccalaureate nursing students who participated in this research study.

Discussion

Although the researcher’s expectations were not met in this study, past research has shown significant differences between work ethic characteristics and different levels of education as well as occupations which are components of work experience. It is difficult to show that work experience and work ethic characteristics are significantly related without placing each variable in well-designed contexts that could increase the probability of generating statistically significant results. Many researchers have accomplished this with carefully designed and thoughtful research.

Since its development by Petty (1991), the Occupational Work Ethic Inventory (OWEI) has been an important tool in research aimed at comparing work ethic characteristics reported by different populations. Petty and other researchers have used the OWEI in many research studies with good results. Petty (1996) used the OWEI to measure the participant’s level of work ethic on the subscales of dependable, ambitious, considerate, and cooperative. Data were collected from 2,274 workers from
private industries who reported having attained different levels of education. The five levels of education included less than a high school diploma; high school degree or GED; 2 years of college or associate’s degree; bachelor’s degree; and some graduate work. A multivariate analysis yielded significant differences at the .05 level for all dimensions of the OWEI. Allender’s (1993) study revealed that senior level students exposed to 2 or 3 years of vocational training as well as instructors with industrial background possessed the strongest work ethic. Petty and Campbell (1988) also found differences in the work attitudes of nursing school teachers and health practitioners.

While statistical significant differences were not shown to exist between work experience and work ethic characteristics, with the exception of ambition, this study also failed to show that they are statistically significantly related. Limitations placed on this study may have contributed to the null hypotheses not being rejected. The distribution of time associated with participants’ work experience relative to their work ethic characteristics may have contributed to the results stemming from this study. A total of 128 (25.6%) out of 500 participants had less than 2 years of work experience, and 372 (74.4%) indicated they possessed 3 to 8 years. Participating junior and senior nursing students accounted for 80.6 % of the population. These nursing students overwhelmingly indicated that they were usually to almost always considerate, ambitious, dependable, and cooperative, with an overall mean of 5.21 on a scale from 1 to 7. Nursing student participants in this study who possessed less than one year of work experience and were classified as sophomores were not equally represented. Again, nursing students classified as freshmen did not participate in this study due to
being enrolled in required core educational courses and not being reasonably accessible for participation.

A larger sample including freshmen and sophomore nursing students as well as those who possess less than one year of work experience may have revealed more significant results in this study. The researcher hypothetically doubled the data set from 500 to 1,000 to reflect a 100% participation of the population. Results indicated statistically significant differences between work experience and all of the work ethic characteristics except for cooperation. Only one statistically significant difference was found between work experience and the work ethic characteristic ambition using the actual data set for this study. Although not part of this study, statistically significant differences were revealed when the background variables supervision and past occupation were compared to the work ethic characteristics ambition and dependable. Significant differences were not statistically generated between the background variable pertaining to whether or not participants were registered or licensed nurses and any work ethic characteristic. However, significant differences were revealed between the demographic characteristic ethnicity and all four work ethic characteristics including considerate, ambition, dependable, and cooperation. The one remaining demographic characteristic, age, was significantly different when compared to the work ethic characteristic ambition.

Could the independent variable work experience in this study have been cast in a different context to test the relationship to work ethic characteristics? The conceptual framework of work experience measures described by Tesluk and Jacobs (1998)
suggests that work experience, as defined for this study, could have been framed in a more appropriate context.

Tesluk and Jacobs (1998) discussed how qualitative and quantitative facets, which represent two of the three components that make up the overall context of work experience, may interact in order to describe the developmental punch offered by certain experiences. Interactions between quantitative and qualitative facets represent the third component of the work experience construct.

In addition to work experience, three other variable categories representing background information on the participants were collected. These categories were represented by the following questions: Are you a registered or licensed vocational/practical nurse? Did you supervise other workers? What category does your past occupation best fit, medical related or non-medical related? Each one of these categories of information fit into one of the first two components that make up the overall context of work experience.

The quantitative component was described according to the measurement mode of time-based measures and amount measures. Years of full-time or part-time work experience represents the quantitative component. Time-based measures of experience are descriptions of the length of time spent performing a task or working in a job or organization (e.g., McDaniel et al. 1988; Medoff & Abraham, 1980, 1981; Schmidt et al., 1986, 1988). Research has shown the relationship between job experience and job performance to be influenced by two variables: length of experience and job complexity. McDaniel et al. (1988) found that the highest correlations were
obtained in populations with low mean levels of job experience and for jobs that place low levels of cognitive demands on employees. “More recent studies have supplemented tenure with measures of the number of times that a task or duty has been performed” (Tesluk & Jacobs, 1998, p 326). However, Tesluk and Jacobs indicated that time-based measures and amount measures provide little insight into the nature of experiences and represent a narrow perspective on the assessment of the work experience construct.

The qualitative component was described as measures that distinguish experiences as type measures (Quinones et al., 1995). The type of work experience addresses the specific nature of situations pertaining to the richness of work experiences such as “the variety and breadth of tasks and responsibilities performed in a job, the types of challenges encountered in an assignment, or the complexity of a task” (Tesluk & Jacobs, 1998, p. 328).

Tesluk and Jacobs (1998) described interaction, the third component of work experience, according to the modes of intensity, timing, and levels of specificity. Quinones et al. (1995) used the term “developmental punch” to refer to the intensity of experiences. Dubois and McKee (1994) and McCall et al. (1988) debated that experiences with developmental punch may have significant effects on subsequent work experiences in terms of learning, motivation, or performance.

Recommendations

The following discussion upon which the rationale for this study was based provides possible directions for future research.
Harvie’s (1991) two questions addressing intrapersonal and interpersonal values are particularly appropriate when contemplating future research to increase knowledge aimed at improving relations and tolerance among co-workers in health care settings:

We take our values-what we believe is important-to work with us. So do those in our work group. As well, the organization has values that it encourages and practices. What happens when these values are not the same? On the other hand, if we hold similar values, will we be more effective at our work or healthier or more accepting of changes?

Values are not merely attitudes towards situations or objects; they act as standards for one’s action, attitudes, evaluations, how one presents oneself, compares oneself, and attempts to influence others. (p. 1)

Is work experience a significant predictor for the development of work ethic characteristics in nursing students? According to Heslop, McIntyre, and Ives, (2001), existing literature has suggested that differences do exist between the students’ expectations of their graduate year and the actual work experience awaiting them when they enter the workplace. Research conducted by Aultman (1997) to address a smooth transition from school to the workplace indicated existing differences between the work ethic of employers and the work ethic possessed by community college students participating in cooperative, educational, and clinical training. Aultman’s (1997) research revealed the existence of a gap between employer and employee workplace performance and expectations. Significant differences between the work ethic characteristics of nursing students and those they must interact with in the workplace
remain a point of departure regarding future research quests with the mission of improving or developing educational and training solutions that convey realistic work attitudes and behavior expected in the workplace. Therefore, studies designed to compare the work ethic characteristics of nursing students, employers, and nursing faculty may provide an anchor point for future research addressing the questions that framed the need for this study.
APPENDIX A

PERMISSION TO USE THE OCCUPATIONAL WORK ETHIC INVENTORY
Loyd Kegans

From: Gregory Petty [g petty@utk.edu]
Sent: Tuesday, August 31, 2004 10:59 AM
To: Loyd Kegans
Subject: RE: OWEI

Loyd,

Indeed, it is hard to believe the summer is good and the semester has started. I am attaching the information you requested with my permission to use the OWEI for your research with the provision you provide proper referencing to me and a final copy of your study.

Best of luck to you in your research and your doctoral studies.

Gregory Petty, Professor
Health Sciences Administration and Policy Studies
369 HPER Building
The University of Tennessee
Knoxville, TN 37996-2710
865-974-4663
865-974-6439 Fax

-----Original Message-----
From: Loyd Kegans [mailto:kegans@tarleton.edu]
Sent: Monday, August 30, 2004 11:10 AM
To: Gregory Petty
Subject: OWEI

Dr. Petty,

Our semester here at Tarleton began a week ago today and it is busy as usual. I have no doubt that you’re experiencing the same. Hope the coming year at UT is a good one for you.

I wanted to know if I can still obtain the OWEI materials you said you would send me and your permission to use them for my dissertation. I am close to submitting my proposal and would feel more comfortable if I knew that using your instrument is still possible. Your help would be immensely appreciated. If there is anything you need from me please let me know.

Thank you.

Respectfully,

Loyd Kegans, Assistant Professor
Zenger Miller Training Facilitator
Tarleton State University
Management, Marketing, & Administrative Systems
Box T-0330 Stephenville, Texas 76402
Office: 254-968-9033 Fax: 254-968-9737
Email: kegans@tarleton.edu
APPENDIX B

PERMISSION TO USE FIGURES
From: Michael Ore\y [mikeore\y@uga.edu]
Sent: Tuesday, February 28, 2006 10:39 AM
To: Loyd Kegans
Subject: Re: request

As long as you give credit to Oxendine, Robinson and Wilson, you are welcome to modify as you see fit. If it is better than what I have, I am willing to put it in the chapter in place of their graphic and give you credit as well.
--
Thanks,
Michael

From: Loyd Kegans <ke\ans@tarleton.edu>
Date: Tue, 28 Feb 2006 10:39:31 -0600
To: <m\ecore\y@uga.edu>
Subject: request

Dr. Morey,

I am a doctoral candidate at the University of North Texas. My dissertation is entitled “A relationship study between work experience and work ethic characteristics of baccalaureate nursing students. The theoretical foundation for my study is based on experiential learning. While reviewing literature for my dissertation, I came upon the works of Oxendine, Robinson, and Wilson which aided in my discussion on experiential learning. The graphic of the experiential learning cycle in this article supports the concept of experiential learning very clearly and I am seeking some guidance regarding permission to adapt this figure for incorporation into the theoretical foundation section of my dissertation. Would this be permissible?

Loyd Kegans, Assistant Professor
Zenger Miller Training Facilitator
Tarleton State University
Management, Marketing, & Administrative Systems
Box T-0330 Stephenville, Texas 76402
Office: 254-968-9033 Fax: 254-968-9737
Email: ke\ans@tarleton.edu
Loyd Kegans

From: Wilson Laura [Laura.Wilson@oxon.blackwelipublishing.com] on behalf of Journals Rights [JournalsRights@oxon.blackwellpublishing.com]
Sent: Wednesday, April 05, 2006 2:43 AM
To: Loyd Kegans
Subject: RE: corrected follow-up to previous email

Thank you for your request. Permission is granted for you to use the material you specify below (figure only) subject to the usual acknowledgements (author, title of material, title of book/journal, ourselves as publisher) and on the understanding that nowhere in the original text do we acknowledge another source for the requested material. Non-exclusive World English Language, one edition, print and electronic version of publication only. This permission is granted on the condition that you contact the author for consent should you wish to adapt or modify the material. This is not the responsibility of Blackwell Publishing.

Kind regards,
Laura Wilson

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From: Loyd Kegans [mailto:kegans@tarleton.edu]
Posted At: 04 April 2006 20:21
Posted To: April 2006 Conversation: corrected follow-up to previous email Subject: corrected follow-up to previous email
April 4, 2006

Blackwell Publishing

To Whom It May Concern:

I am completing a doctoral dissertation at the University of North Texas entitled "A Study of the

The figure to be reproduced is labeled as Figure 1 and captioned "A Conceptual Framework of Work Experience Measures.


The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by ProQuest. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that Blackwell Publishing owns the copyright to the above-described material.

I have communicated with the authors and they have given me permission to use the requested figure in my dissertation.

If these arrangements meet with your approval, please sign this letter where indicated below and fax it to me at 254-968-9737.

Thank you very much.

Sincerely,
Loyd Kegans, Assistant Professor

Department of Management, Marketing, & Administrative Systems
Box T -0330 Stephenville, Texas 76402
Office: 254-968-9033 Fax: 254-968-9737
Email: kegans@tarleton.edu
From: Kevin Ford [fordjk@msu.edu]
Sent: Monday, February 27, 2006 2:45 PM
To: 'Loyd Kegans'
Subject: RE: Search

Loyd,

There is no problem with using the figure and my understanding of copyright rules is that for a dissertation, you would only need to reference where you obtained the figure (e.g., Personnel Psychology). If you were using the figure for a textbook or something you were selling, you would need to obtain permission from Personnel Psychology. Hope your study worked out!

Kevin

J. Kevin Ford
Department of Psychology
315 Psychology Building
Michigan State University
E. Lansing, MI 48824
517-353-5006
http://topsych.msu.edu/jkfd/

----Original Message----
From: Loyd Kegans [mailto:kegans@tarleton.edu]
Sent: Monday, February 27, 2006 3:32 PM
To: 'Kevin Ford'
Subject: RE: Search

Kevin,

Thank you for your response. I am a doctoral candidate at the University of North Texas. My dissertation is entitled "A relationship study between work experience and work ethic characteristics of baccalaureate nursing students." The foundation for clarifying work experience in my study is based on your article. Work experience in my study is based on the context of tenure, but I used the other contexts describe in meta-analytic reviews to recommend future research aimed at the same population. The figure describing the conceptual framework of work experience measures was very helpful and I am seeking permission to use it in my dissertation. Is my request possible? Miguel Quiones said it was OK with him. I have not been able to locate the other author named Teachout. I am concerned about the issue of copyright too. Your help would be greatly appreciated. Thank you.

Loyd

----Original Message----
From: Kevin Ford [mailto:fordjk@msu.edu]
Sent: Monday, February 27, 2006 12:53 PM
To: 'Loyd Kegans'
Subject: RE: Search

Hello Loyd,

Yes, I am one of the authors of the article that you cited. Let me know what you need/looking for and I will try and help out.
Loyd Kegans

From: Miguel Quinones [mickey@eller.arizona.edu]
Sent: Monday, February 27, 2006 11:59 AM
To: Loyd Kegans
Subject: Re: search

Dear Dr. Kegans,

I am very happy that you found my work useful. I have no trouble with you using my model. The only issue I am not sure about is the fact that the actual copyright to the work is owned by the journal. But I think that as long as you don't actually photocopy the model but rather reproduce it (using Powerpoint, etc) and say that this was adapted from my article, you should be OK.

Good luck with your dissertation.

Mickey

******************************************************************************
Miguel A. Quinones, Ph.D.
Brian Leek Professor of Management
Department of Management and Policy
Eller College of Management
University of Arizona
P.O. Box 210108
Tucson, AZ 85721-0108
(520) 621-5857 - Voice
(520) 621-4171 - Fax
e-mail: mickey@eller.arizona.edu
Web Page: http://management.eller.arizona.edu/faculty/mquinones.aspx
******************************************************************************

On Feb 27, 2006, at 10:52 AM, Loyd Kegans wrote:

Dr. Quinones:

I sent you an email earlier today asking if you were one of the authors of an article entitled, "The relationship between work experience and job performance". I found your webpage. I am writing my dissertation entitled "A relationship study between work experience and work ethic characteristics of baccalaureate nursing students. The foundation for clarifying work experience in my study is based on your article. Work experience in my study is based on the context of tenure, but I used the other contexts describe in meta-analytic review to recommend future research aimed at the same population. The figure describing the conceptual framework of work experience measures was very helpful and I am would like permission to use it in my dissertation. Is my request possible?

Loyd Kegans, Assistant Professor
Zenger Miller Training Facilitator
Tarleton State University
Management, Marketing, & Administrative Systems
Box 1-0330 Stephenville, Texas 76402
Office: 254-968-9033 Fax: 254-968-9737
Email: kegans@tarleton.edu
REFERENCES


Cherrington, D. J. (1980). *The work ethic: Working values and values that work.* New York: AMACOM.


Unpublished manuscript, The University of Tennessee, Knoxville.


