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Learning Experiences and Perspective Transformation in Evangelical Faith-Based Adult Nonformal Education Programs

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LEARNING EXPERIENCES AND PERSPECTIVE TRANSFORMATION IN EVANGELICAL FAITH-BASED ADULT NONFORMAL EDUCATION PROGRAMS

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of the requirements for the degree of
Doctor of Philosophy in Curriculum and Instruction

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ABSTRACT

The study adapted an existing instrument to examine perspective transformation and its associated factors in participants of evangelical faith-based adult nonformal education in the Midwestern United States. Stratified random one-stage cluster sampling of 11 churches produced a nonprobability sample ($N = 597$) that was significantly ($p < .05$) different from the population of the geographical location of the study. An 86% majority self-reported a level of agreement or stronger of perceived transformation of perspectives, but differences predicted by gender were insignificant. The difference in perceived perspective transformations between respondents aged 40-59 that had the highest levels and respondents aged 60 and above that had the lowest levels was significant. The factors of influential individuals, personal reflection, and thought-provoking learning assignments significantly predicted all four factors of perspective transformation; the Writing Assignment factor was a significant negative predictor of only the Perception of Change factor, and a significant positive predictor of only the Future Benefits factor. The study recommended that additional research on faith-based frames of reference and age category differences. The study also recommended that faith-based practitioners consider emphasizing transformative learning experiences and personal reflection in their programs for adults.

This dissertation is approved for recommendation
to the Graduate Council.

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CHAPTER 1

INTRODUCTION

In his review of church-sponsored faith-based nonformal education in the last quarter of the 20th century, Hadaway (1999) reported that although the American population increased about 23%, Sunday school average attendance dropped about 22% in the largest mainstream evangelical protestant denomination and about 55% in mainline protestant denominations; about 43% of churches stopped offering Sunday school classes altogether. Thus, it could be expected that the people who stopped attending Sunday school as children would have a measurable influence on the sociological statistics starting about 20 years later as adults. As the 21st century began, national surveys (Kosmin & Keysar, 2009; Lugo et al., 2008; University of California, Berkeley, 2010) quantified a definite downward trend in the influence of evangelical Christianity on American society and culture. The *American Religious Identification Survey* (Kosmin & Keysar, 2009) showed that Americans who responded "Christian" when asked "What is your religion, if any?" (p. 2) fell from 86% in 1990 to 76% in 2008; the percentage of Americans who replied "none" rose from 8% to 15%. Americans responding to the 2008 *U.S. Religious Landscape Survey* claiming no affiliation with any particular faith more than doubled to 16% (Lugo et al., 2008). However, the percentage responding as Protestant declined dramatically from 63.3% in 1991 to 49.9% in 2008, while those who identified themselves as none rose from 6.3% to 16.9% (University of California, Berkeley, 2010). "The challenge to Christianity in the U.S. does not come from other world religions or new religious movements, but rather from a rejection of all organized religion" (Kosmin & Keysar, 2009, p. 3). However, that rejection of all organized Christian religion may not necessarily indicate a rejection of Christianity. In what has been termed the organic church movement (Putman, 2010), growing numbers of devout

entrepreneurial Christians disillusioned with organized churches in America have been leaving to meet on their own in various locations with like-minded believers in informal small groups (Barna, 2005). While it is readily admitted that local organized churches can be rendered ineffective by a lack intentionality, inauthentic relationships, and internal political problems, a common solution in evangelical literature is education (Shirley, 2008) and training (Putman, 2010) that effectively transforms the thinking of those involved (Coleman, 1993/2000).

Another factor contributing to this recent measured decline in Christian influence could be the overall shortfall in the desired effectiveness of church-sponsored faith-based education (Hadaway, 1999). Although 62% of Americans in their 70s and older are Protestant, only 43% of adults younger than 30 consider themselves Protestant (Lugo et al., 2008). The current generation of young adults who attended Sunday school regularly throughout their school years is not immune to losing their Christian identity in college (Johnson, 2005; Pearcey, 2005). This scenario repeats itself in young adults due not to their lack of biblical knowledge, but to their lack of a dependable biblical frame of reference (Johnson, 2005; Moreland, 1997; Pearcey, 2005). Although the primary goal of transformative learning is to develop a more dependable frame of reference in adult learners (Mezirow, 2000), a review of the literature for the study could find little evidence of transformative learning being studied in the context of evangelical faith-based adult nonformal education programs.

Longitudinal measurements during this time period charted a continued decline in Christian influence on American society as the culture grows more secular; although the percentage of self-identified Christians in middle and late adulthood has remained relatively stable, the percentage in early adulthood, especially those under 30 years of age, has had a pronounced decline (Kosmin & Keysar, 2009; Lugo et al., 2008; University of California,

Berkeley; 2010). The issues of unprepared and undeveloped faith across the span of adult age groups suggest that current or traditional factors associated with instruction for these age groups within faith-based education programs could be losing their effectiveness in dealing with the challenges of modern and postmodern American cultural paradigms (Johnson, 2005). These paradigms relegate faith to the private sphere of subjective personal values distinct from the public sphere of objective truth (Moreland, 1997; Pearcey, 2005).

Problem Statement

The number of Americans surveyed nationally who identify themselves as Protestant or Christian has steadily declined over the past two decades while the number claiming no religious affiliation has grown, especially in the young adult demographic. A common solution suggested in recent evangelical literature is to improve the effectiveness of faith-based education in local organized churches. Although this is the realm of transformative learning theory, little evidence of studies of perspective transformations in the context of evangelical faith-based adult nonformal education programs can be found.

Purpose of the Study

The purpose for conducting the study was to examine the extent to which perspective transformation has occurred in participants involved in evangelical faith-based adult nonformal education in a given area of the Midwestern United States, and to study the personal reflection and learning experiences associated with such transformations.

Research Questions

The study sought to answer the following research questions:

1. To what extent has self-reported perspective transformation occurred in participants involved in evangelical faith-based adult nonformal education programs?

2. To what extent did gender predict or explain self-reported perspective transformation in evangelical faith-based adult nonformal education participants?
3. To what extent did self-reported perspective transformation vary among male and female evangelical faith-based adult nonformal education participants in early (age 18-39), middle (age 40-59), and late (age 60 and up) adulthood?
4. To what extent did personal reflection, learning experiences, and/or demographics predict or explain self-reported perspective transformation in evangelical faith-based adult nonformal education participants?

Assumptions

The basic assumption of the study was that the evangelical faith-based education information is being provided to adults within Evangelical churches based on their doctrinal statements of faith. The study also assumed that participants were able to accurately assess transformations in their perspectives and that these assessments were reported sincerely on the instrument. Finally, the study assumed that the instrument used to measure these transformations and associated factors was valid.

Limitations and delimitations of the Study

Measuring (a) the content of the evangelical faith-based adult nonformal education programs, (b) the extent to which learners understand their frame of reference, and (c) the extent to which learners consider their frames of reference dependable are beyond the scope of the study.

Participant data in the study were self-reported and relied on participant memory recall which could limit the accuracy of information received. Participants' transparency and sincerity in their responses was essential to the results obtained within the study.

The study was delimited to those involved in evangelical faith-based adult nonformal education sponsored by the three largest religious bodies in a given metropolitan area in the Midwestern United States. The exploratory nature of the study restricted the generalizability of the study results to that population.

Significance of the Study

The study proposed to implement E. W. Taylor's (2000) suggestion to explore new research designs and add variety to data collection methods. Transformative learning theory spawned from Mezirow's (1981) qualitative research; most methodologies to research it have been naturalistic and phenomenological (E. W. Taylor, 2000).

The study was important because church leaders could use this knowledge to enhance the efficacy of their education programs' ability to help individuals develop and maintain their faith. Ministers and leaders could use the study results to indicate the extent to which their faith-based education has provided learning experiences facilitating perspective transformations.

The study was also important because it could inform the professional development of those involved in faith-based adult education. Church leaders and education directors sponsoring learning activities for adults would have a clearer picture of the results desired of facilitators of adult classes, which could guide the development and use of perspective transformation methods.

Definition of Key Terms

Andragogy: a professional perspective of adult educators; an organized and sustained effort to assist adults to learn in ways that enhance their capability to function as self-directed learners (Mezirow, 1981, p. 21). Having a facilitator's attitude towards learners, accepting each as a person worthy of respect (Knowles, Holton, & Swanson, 2005).

Disorienting Dilemma: an aspect of normal adult development wherein we become critically aware of how and why unexamined perceptions, expectations, thoughts, and actions have inaccurately defined the problems we experience and our relationship to those problems (Mezirow, 1981).

Evangelical faith-based adult nonformal education: A function of the church or other faith-based organization (Towns, 2001), distinct from the congregational worship service where sermons, talks, or messages are preached, delivered, or given from the pulpit (M. C. Brown, 1901; Pray, 1847). The activities of Evangelical faith-based adult nonformal education vary based on the sponsoring organization; however, the study will focus on adult Sunday school or Bible study classes typically offered on Sunday mornings or Wednesday evenings.

Evangelical Protestant: the branch of Christianity whose doctrine emphasizes "individual conversion, the authority of scripture, and moral and social reform" (Queen, Prothero, & Shattuck, 1996, p. 227). Evangelical is derived from Greek words in the New Testament meaning either (a) to preach, bring, show, or declare good or glad tidings, news, or information; or (b) the glad or good news, tidings, or information itself (C. G. Brown, 2004). Evangelical preaching styles tend to be more revivalist than other branches of Christianity (Pearcey, 2005).

Faith: Differentiating religion (that is, a tradition of beliefs and practices) from faith (that is, a lifestyle) is important when discussing the nature of faith and how it develops (Fowler, 1981). As used in much of the literature and in the study, the word faith denotes something quite other than identification with a religious group or intellectual acceptance of given metaphysical propositions. Faith is "our way of discerning and committing ourselves to centers of value and power that exert ordering force in our lives....[It] grasps the ultimate conditions of our existence,

unifying them into a comprehensive image in...which we shape our actions" (Fowler, 1981, pp. 24-25).

Formal Education: the "highly institutionalized, chronologically graded and hierarchically structured 'education system,' spanning lower primary school and the upper reaches of the university" (Coombs & Ahmed, 1974, p. 8). It is most often publically funded (Merriam & Brockett, 1997) and curriculum-driven (Smith, 1999/2008).

Frame of Reference: Mezirow's (2000) term for the "structure of assumptions and expectations through which we filter sense impressions" (p. 16) that anchor "our values and sense of self…provide…a sense of stability, coherence, community, and identity….[are] often emotionally charged and strongly defended….[and set standards against which] other points of view are judged" (p. 18). Mezirow (2000) theorized that frames of reference have two dimensions: habits of mind (one's orientation toward, assumptions about, and understandings of reality and experiences) and their resultant points of view (one's immediate and default ways of evaluating perceptions, making decisions, and acting, so automatic that people do not even aware of the process unless it is brought to their attention).

Ideology: "a belief system and attendant attitudes held as true and valid which shape a group's interpretation of reality and behavior, and are used to justify and legitimate actions" (Mezirow, 1981, pp. 5-6). Ideology not only filters individuals' perceptions of how things really are in relational roles with people at the individual, group, organizational, regional, or national levels, but also how these misperceptions are strengthened and maintained by physical and mental propaganda to keep the marginalized individuals convinced that any efforts to improve things or influence decisions are futile (Mezirow, 1981).

Informal Education: The oldest form of education, dating back to the first human interactions with their environment and each other. Informal education occurs in stark contrast to both formal and nonformal types due to its invisibility; it is "the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes, and insights from daily experiences and exposure to the environment" (Coombs & Ahmed, 1974, p. 8).

Learning experiences: As used in the study, an umbrella term incorporating the elements in the learning environment considered to be planned, provided, or under the control of the faith-based adult nonformal educator: (a) influential personal support and challenges, (b) educational assignments and activities associated with reaching a desired learning objective, (c) the learning time and its policies, and (d) the number of participants in the class or group.

Life-changing event: Considered one of outside influences counted in the study, it is defined as "an acute internal and personal crisis" (E. W. Taylor, 2000, p. 298) such as a marital separation or divorce, birth of a child, death of a loved one, or a personal injury requiring a change of thinking. "Such precipitous events may lead to transformational experiences….and some may interact with educational experience….However, life experiences of change give a more complete and accurate account of the learning activities that adult educators have control over" (King, 2009, pp. 17-18).

Nonformal Education: "any organized, systematic educational activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups in the population" (Coombs & Ahmed, 1974, p. 8).

Pedagogy: the art and science of traditional teaching, wherein teachers generally are accustomed to being in control, implying a hierarchal downward relationship to their students, such as adult-child, superior-subordinate, master-apprentice, clergy-laity, etc.

Perspective transformation: Mezirow's (2000) terminology for the process by which adults use critical reflection to make their frames of reference more dependable, and capable of producing beliefs, feelings, and values that justify better decisions.

Reify: to regard (something abstract) as a material or concrete thing (Merriam-Webster's Online Dictionary). When one perceives or understands ideologies, social constructs, or other abstract phenomena of human origin to be as unchangeable as the laws of nature, Mezirow (1981) described those perceptions or understandings as reified.

Transformative Learning Theory: Mezirow's (1981, 2000) conceptualization of how adults use their unique ability to be critically self-conscious of their understandings and assumptions about life, reality, and relationships when people or events expose the inadequacies of their previous understandings and assumptions.

Theoretical Framework

Mezirow's (2000) transformative learning theory framed the study. Transformative learning theory purports to identify and explain the perspective transformation process by which adults employ critical self-reflection to make their frames of reference, that is, meaning perspectives, personal paradigms, or habitual thinking patterns and the points of view built upon these foundational elements, more dependable (Mezirow, 2000). Mezirow (1981) claimed this theory to be uniquely adult in its construct due to the inability of children to engage in the required critical self-reflection. The study regards adults as people at least 18 years of age who see themselves as self-responsible, with a capacity and expectation of making, or at least having a voice in, decisions involving them (Knowles et al., 2005).

CHAPTER 2

LITERATURE REVIEW

This chapter provides a description of the key theories, concepts, issues, and authors relevant to this inquiry into transformative learning in Evangelical Protestant faith-based adult nonformal education. The chapter is organized topically, starting with the broadest topics and narrowing down to the specifics of the study, and begins by distinguishing learning from education and then reviews three major theories influencing all adult learning. Next, education's three general categories and educators' two commonly-held perspectives are reviewed, including a brief review of the implications of those educator perspectives; this provides a basis for the theoretical framework of the study: Transformative learning. Then, an overview of the distinctiveness of Evangelical Protestantism helps explain the importance of its faith-based adult nonformal education programs, which are the context for the study. The chapter closes by exploring transformative learning experiences and a discussion of their possible benefits to faith-based educators as a justification for the study.

In addition to the books purchased commercially, the sources for this literature review include books downloaded from http://archive.org or borrowed through the University of Arkansas library. Book chapters and research articles were accessed through the University of Arkansas library's Ebsco Academic Search Complete and ProQuest Research Library databases; doctoral dissertations were accessed using ABI/INFORM Complete. Search terms such as "adult," "education," "faith," "learning," "Mezirow," "religious education," "stratified random sampl*," and "Transformati*" were used individually and in combination from mid-2009 to the end of 2012 to produce these results.

Adult Learning and Education

Given that the study concerned transformative *learning* in Evangelical faith-based adult *education*, this review of the literature begins with an attempt to provide a clear distinction between the two different concepts of learning and education.

Learning

Learning "emphasizes the person in whom the change occurs or is expected to occur….We define learning as the process of gaining knowledge or expertise" (Knowles et al., 2005, pp. 16-17). Most well-known theories purported to be about human learning, those advanced by behavioral psychologists such as Pavlov, Thorndike, and Skinner, and those formulated by cognitive psychologists such as Piaget and Bruner, were formulated based mainly on observations of and experiments with animals or children, respectively (Knowles et al., 2005; Yount, 1996). Behavioral theorists, such as Skinner, defined learning as a change in behavior resulting from the effects of an action (Gredler, 2005; Yount, 1996). However, others saw learning as "a natural phenomenon, capable of being increased or decreased, brought intentionally to the center of purposeful activity, or allowed to recede into a default mode" (Ward, 2001, p. 118).

Three Influential Theories on Learning

Three of the major theories contributing to how and why adults learn influence certain aspects of the study: Piaget's Cognitive Development Theory, Bandura's Social Learning theory, and Levinson's Adult Development model.

Piaget's cognitive development theory. Inhelder and Piaget (1976) observed that the age at which people begin to consider themselves to be adults and use some notion of a standard to judge other adults varies so greatly that "the growth of formal thinking as well as...the age at

which the individual starts to assume adult roles...remain dependent on social as much as and more than on neurological factors" (p. 60). The authors posited that all conscious interactions a person has with surroundings and with other people can be characterized as a uniquely personal cognitive equilibrium gradually reached by summing all experiences with learning how to adapt to a material and social environment. Piaget (1985) stated that knowledge proceeds neither from experience with objects alone nor from pre-formed innate programming, but from an ongoing process of constructing optimized cognitive structures that equilibrate sensory perceptions of reality with understanding that reality. Piaget (1985) identified the two basic components of equilibration as assimilation and accommodation: assimilation occurs when external and/or internal elements are integrated into existing cognitive structures of meaning; accommodation occurs when the existing cognitive structures of meaning are successfully modified to assimilate all elements into an integrated whole while preserving the function of the structure. However, "because no form of thought, at whatever level considered, is capable of simultaneously embracing all of reality or every universe of discourse in a coherent whole" (Piaget, 1985, p. 11), humans are beset with conflict and disequilibria; these motivate searches for knowledge to progress beyond their inadequate previous cognitive structures and to requilibrate with improved ones. Piaget (1985) concluded that equilibration, in all its various forms, appears to constitute the underlying vital factor in cognitive development: "Disequilibria are most frequent during beginning developmental periods....This makes progressive equilibration essential to development and requires that...it move in the direction of equilibria that are improved in...both their qualitative structure and the field to which they apply" (p. 15).

This brief glimpse at Piaget's cognitive theories provided theoretical landmarks to which Knowles et al.'s (2005) position on adults' self-perception as learners and Mezirow's (2000) position on cognitive mental structures needing transformation align.

Levinson's adult development model. Levinson's (1978) research (only of males) showed that developmental periods in the cycle of a man's life unfold in a predictable sequence linked to his age. Levinson (1978) formulated the eras that men typically go through in their life from the perspectives of (a) "changes in biological and psychological functioning," (b) "the sequence of generations [that is, how a man sees himself and is perceived by others older or younger than himself]," and (c) "the evolution of careers and enterprises" (p. 24). Levinson's (1978) four seasons of stability with slightly overlapping approximate age demarcations (and the major task of each season, as summarized by Knowles et al., 2005, p. 224) are

1. Childhood and adolescence: age 0 - 22 [grow, gain skills, become an individual];
2. Early adulthood: age 17 - 45 [form a dream, build its structure, pursue the dream];
3. Middle adulthood: age 40 - 65 [modify/quit the dream, seek other options for self];
4. Late adulthood: age 60 - ? [swap authority roles for a new self-in-world]. (p. 18)

During a man's adult years, his developmental tasks during the unique stable seasons are to "make certain key choices, form a structure around them, and pursue his goals and values within this structure. [Stability]…in this sense [does] not necessarily…[mean]… tranquil and without difficulty….Making major life choices…is often stressful…and may involve many kinds of change" (Levinson, 1978, p. 49). Between each stable season, Levinson (1978) found a transition period of instability, lasting about five years, when the needs, desires, and contributions of a man's life structure from the previous era begin to lose viability and suitability, signaling the need for change. During these unstable transitions, a man's developmental tasks

are "to question and reappraise the existing structure, to explore various possibilities for change in self and world, and to move toward commitment to the crucial choices that form the basis a new life structure in the ensuing stable period" (p. 49). Levinson (1978) characterized transitions as a termination in which losses are accepted, the past is reviewed and evaluated, certain aspects from that past are retained while others are jettisoned, and future preferences and options are pondered. A transitional period ends "when the tasks of questioning and exploring have lost their urgency, when a man makes his crucial commitments and is ready to start on the task of building, living with and enhancing a new life structure" (p. 52).

For the present study, Levinson's (1978) age ranges were modified slightly to eliminate their overlap and allow comparisons of transformational learning between the three adulthoods. Thus, the ages 18 - 39 for Early, 40 - 59 for Middle, and 60 and above for Late were used.

Bandura's social learning theory. The learning theories reviewed thus far have been cognitive in nature; however, at least one behaviorist learning theory also informs inquiry into transformative learning. "The position taken by social learning theorists is that behavior involves the interaction of people, with many different environmental conditions affecting a person's role and learning with a given context" (Pullman, 2001, p. 71). Although classified as a behaviorist model (Yount, 1996), social learning theory contains some cognitive elements. Pullman (2001) summarized the theory's four main points as (a) we are always interacting with our environment as we influence it and it influences us, (b) we are capable of learning without external reinforcement merely by observing, (c) and the consequences of behavior we have observed in others affects our own choices (d) as we cognitively process the information we have perceived. Social Learning research has found that "people are more likely to imitate a model they admire and perceive as being similar to themselves than someone who is not highly regarded….This

process eventually leads… to the realization that [they are] able to be a model…for others" (Pullman, 2001, p. 71).

With learning thus defined and three of its theories relevant to how and why adults learn reviewed, it is now appropriate to focus on the provider side of a learning relationship.

Education

In contrast to learning, the focus in education is upon the educator, the one who sets up and operates the "learning environments" (Bransford, Brown, & Cocking, 2000, p. 131). Education is defined as "an activity undertaken or initiated by one or more agents that is designed to effect changes in the knowledge, skill, and attitudes of individuals, groups, or communities" (Knowles et al., 2005, p. 10). Referring to Christian education theory and practice, Issler (2001) held that "we must become more aware of how our presuppositions and approaches [or to use Mezirow's, 2000, terminology: frames of reference] influence the development of curriculum, instructional design, programmatic development, and so forth" (p. 43). "Teaching is more dependent on human relationships within the learning context than upon the intellectual …components of the knowledge being taught….The teacher must avoid the desire to control or to remake another person in his or her own image" (Ward, 2001, p. 118). With education thus distinguished, a review of its three categories is now appropriate.

Categories of Education

A three-way division of educational activity into formal, nonformal, and informal sectors has gained wide acceptance in the adult education community in the United States, Canada, and internationally (Merriam & Brockett, 1997). Smith (1999/2008) characterized these divisions based on their "administrative setting and sponsorship" (Informal learning - an administrative concept, ¶ 3).

Formal education. As the name implies, formal education is defined as the "highly institutionalized, chronologically graded and hierarchically structured 'education system,' spanning lower primary school and the upper reaches of the university" (Coombs & Ahmed, 1974, p. 8) and as "organized, planned, budgeted, staffed, and deliberate" (Ward, 2001, p. 121). Smith pointed out that "Formal education is linked with schools and training institutions….and is curriculum-driven" (1999/2008, ¶ 4, 6). Formal education for adults such as continuing higher education, technical training, and literacy programs attached to public schools, is usually funded by taxpayers as part of a government plan (Merriam & Brockett, 1997). Although the formal type is what seems most familiar often when education is mentioned, it is actually the youngest of the three types: formal schooling generally did not begin until around the seventh century (Knowles et al., 2005).

Nonformal education. Coombs and Ahmed (1974) defined nonformal education as "any organized, systematic, educational activity carried on outside the framework of the formal system to provide selected types of learning to particular subgroups in the population" (p. 8). These deliberate educational activities are generally offered at little or no cost to make the specific, functional knowledge people need for life in a given society more available (Ward, 2001). Nonformal education's purpose, structure, plan, and personnel often appear similar to those of formal education, but nonformal education lacks formal education's authority to offer transferable "credits, diplomas, and degrees" (Ward, 2001, p. 121). Instead, a locally-centered nonformal education provider tends to be "expressly concerned with social inequities and often seeks to raise the consciousness of participants toward social action" (Merriam & Brockett, 1997, p. 170). Examples of nonformal education include "a Bible study class offered by a local church, or a first aid program given by the Red Cross" (Merriam & Brockett, 1997, p. 14) and

"swimming, automobile driving, job skills, outdoor and nature education, recreational sports, and religious education" (Ward, 2001, p. 121). From the founding of European colonies in North America until the Revolutionary War, religion was the driving force behind what would now be labeled nonformal adult education in North America (Merriam & Brockett, 1997). By these definitions, it could be inferred that nonformal education is the second-oldest type of education, dating back to military training in the earliest armies or on-the-job training in the first established businesses.

Informal education. This is the oldest form of education, dating to the first human interactions with their environment and each other. Informal education occurs in stark contrast to both formal and nonformal types due to its invisibility, and involves "the wide range of situations and relationships that result in important socialization….a natural process of learning from surroundings, people, and experiences" (Ward, 2001, p. 121). Coombs and Ahmed (1974) defined informal education as "the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes, and insights from daily experiences and exposure to the environment" (p. 8). According to Ward (2001), the abilities we all have acquired from informal education include "learning [our] first language….walking, running, singing, understanding and using humor, and the multitude of commonplace things that we are not born with but that are ready to be used before we officially 'go to school'" (p. 121). Indeed, many of the people interviewed for Tough's (1979) research on lifelong learning were unaware of their own learning because it happened though informal education.

The above characterizations of formal, nonformal, and informal education "are not watertight compartments. They overlap in places, occasionally turning up in hybrid forms. Most importantly, they interact with, supplement, and reinforce one another in a great variety of ways"

(Coombs & Ahmed, 1974, p. 233). Evangelical faith-based education exists in all three of the above categories of education, but the study is delimited to nonformal adult education. A very common label placed on this phenomenon by evangelical churches is Sunday school.

Educator Perspectives

In each of the three categories of education described above, two primary types of educational perspectives, frames of reference, theories, ideologies, assumptions, orientations, human relationships, or models can be found in operation: pedagogy and andragogy. Embedded in these two perspectives are their preferred methods of instruction. After exploring each perspective, a significant difference between the two relevant to the study will be highlighted.

Pedagogy. For most of human history, passage of important knowledge and wisdom from one person, family, or generation to the next was an informal, interpersonal, and oral process (Faure et al., 1972). However, as use of a language in written form gradually became more prevalent, it naturally increased the demand for someone with the knowledge to instruct the learners in a certain space at a certain location (Faure et al., 1972). The advent of schools specifically for children were the monastic and cathedral schools, organized mostly in Europe during the seventh century to ingrain the traditions and dogma of the religion into boys going into the priesthood (Knowles et al., 2005). Teachers in these schools "developed a set of assumptions about learning and strategies for teaching that came to be labeled pedagogy, literally, meaning 'the art and science of teaching children' (derived from the Greek words *paid*, meaning 'child,' and *agogus*, meaning 'leader of')" (Knowles et al., 2005, p. 36). Faure et al. (1972), noted this instruction continued "for thousands of years…accompanied by strict, authoritarian, scholastic discipline, reflecting societies which were themselves founded on rigidly authoritarian principles. This set the pattern for *the authoritarian master-pupil relationship*

which still prevails in most schools in the world [emphasis in the original]" (p. 6). Unfortunately, pedagogy is still commonly used to describe the art and science of teaching "children of all ages," ranging from Pre-Kindergarten levels up through college and beyond, including teaching the teachers themselves who engage in its practice.

In 2000, Bransford, Brown, and Cocking edited the National Research Council's "broad overview of research on learners and learning and on teachers and teaching" (p. 14). The report's first highlighted finding was that humans come into any specific learning episode each with an already-conceived mental frame of reference about their world, and unless this meaning perspective is consciously examined, people are likely to either misunderstand what they are taught, or retain the knowledge only for as long as required before returning to previous way of thinking. Although this volume was understandably focused on formal education in preschool-through-college classrooms, its implications for faith-based adult nonformal education follow.

The National Research Council (Bransford et al., 2000) panel derived four characteristics from its major findings to guide and evaluate how learning environments could and should be effective by centering the learning on (a) the learner, (b) knowledge, and (c) assessment, all of which occur within a (d) community. In adapting these characteristics to the faith-based adult nonformal education context of this present study,

1. *Learner-centered* environments are interpreted to mean those that attend carefully to the knowledge, skills, attitudes, experience, self-concept, and beliefs that adult learners bring with them to the faith-based educational activity.
2. *Knowledge-centered* environments are interpreted to mean the implementation of transformative learning theory to affectively and cognitively support adult learners' growth in developing more dependable frames of reference regarding their faith.

3. *Assessment-centered* environments are interpreted to mean that feedback is provided on learner-collected, experience-based real-world situations or authentic simulations against affective and cognitive domain learning objectives.
4. *Community-centered* environments are interpreted to mean that the learning results from an ongoing supportive relationship with the facilitator or leader and occurs in a smaller fellowship of learners, but fits into the overall mission and vision for the sponsoring church.

The panel (Bransford et al., 2000) reported "the principles of learning and…designing learning environments apply equally to child and adult learning. They provided a lens through which current practice can be viewed with respect to K-12 teaching *and* with respect to preparation of teachers" (p. 27). The panel focused on children but asserted that four characteristics also applied to adults in learning situations. The panel's report noted "Many approaches to teaching adults consistently violate the principles for optimizing learning" (p. 26). Applying pedagogical ideology to adult learning environments may be ineffective because "learning involves making oneself vulnerable and taking risks" (Bransford et al., 2000, p. 195).

Andragogy. The first concept listed by Merriam and Brockett (1997) as being commonly used in adult education practice is andragogy, which holds that educating adults effectively requires a different orientation and ideology than teaching children (Knowles et al., 2005). Faure et al (1972), admitted the rarity of scientific studies in the psychological aspects of teaching adults: "The possibilities of adult learning…are far from having been studied in such a systematic fashion as the aptitudes of children and adolescents" (p. 119). Apps (1991) confirmed that "in the past, researchers gave almost no attention to characteristics of adults as learners; the emphasis was on children and youth" (p. 39).

In their review of the history of adult education, Knowles et al. (2005) emphasized how the earliest, greatest teachers from the Chinese, Greek, Roman, and Jewish cultures in antiquity all used various methods to teach adults, not children. For example, Confucius would describe scenarios from which his learners would unpack meaning. The modern term for this technique is the case study. In the method named after him, Socrates asked questions or posed dilemmas, which caused his learners to seek answers. Reflective of their affinity for contests, the Roman style was to force learners to take a position on an issue and defend it from attacks; it is noted how this style is still used in in American graduate study to this day. In all these cases, teachers engaged their adult students in active learning situations in which learners had to process cognitive principles and concepts and affective values to reach the desired lesson objective.

Knowles' (Knowles et al., 2005) six assumptions about adult learners were that they (a) need to know why they are learning, (b) have a self-concept as being autonomous, (c) rely on experience as an important resource, (d) are ready to learn things applicable to their life, (e) have a life-centered or problem-centered orientation to learning, and (f) have an internal locus of motivation.

Significant difference. A major difference between the world of pedagogy in formal education and andragogy in adult education is the preparation of its practitioners. Graduate study specific to the education of adults has been available since around the 1930s and nearly 100 universities in North America confer degrees in the field every year. At the start of the new millennium, "most people engaged in the education of adults have neither a credential nor formal preparation in adult education" (Imel, Brockett, & James, 2000, p. 632). If this is true of practitioners in Adult Basic Education/General Education Development formal education, it is

perhaps just as or even more likely that practitioners of faith-based adult nonformal education are also unaware that a formal, scientific field of study in adult education and learning exists.

Transformative Learning Theory

In 2000, E. W. Taylor wrote "In the twenty years since transformative learning emerged as an area of study in adult education it has received more attention than any other adult learning theory, and it continues to be of interest" (p. 285); he came to this conclusion after critically reviewing 39 empirical studies available in journals, conference proceedings, doctoral dissertations, or master's theses in 1997. In 2008, he not only still held the view of transformative learning theory as a growing area of research on adult learning with significant implications for adult education practice, but because its teaching practices were grounded on empirical research and were supported by theoretical assumptions, that it may have had dethroned andragogy as the dominant adult education philosophy (p. 12).

Frame of reference. Mezirow (2000) defined frame of reference as the "structure of assumptions and expectations through which we filter sense impressions" (p. 16) that anchor "our values and sense of self…provide…a sense of stability, coherence, community, and identity….[are] often emotionally charged and strongly defended….[and set standards against which] other points of view are judged" (p. 18). He theorized that frames of reference have two dimensions: habits of mind (one's orientation toward, assumptions about, and understandings of reality and experiences) and their resultant points of view (one's immediate and default ways of evaluating perceptions, making decisions, and acting, so automatic that people do not even aware of the process unless it is brought to their attention).

Mezirow (1981) also theorized that two different but interconnected psychological assumptions can block or blur an accurate view of ourselves and relationships: he categorized the

first as socio-cultural and habitual assumptions that can build a mental stronghold formidable enough to imprison personal identity and purpose in life. If taken to a logical extreme, these could lead to view oneself merely as an accident of nature playing a powerless role in a meaningless script written by impersonal society (Sire, 2009). "Habits of mind include….postmodernist…and many other orientations and worldviews" (Mezirow, 2000, p. 18). In Mezirow's (1981) second category were the naive assumptions about life and the world that must also be reviewed critically before childish perspectives on adult dilemmas can be effectively transformed. Frames of reference collectively held by a large group of people often become paradigms for that culture which are assimilated by its younger members with varying levels of their awareness; primary caregivers and others in authority also pass down their idiosyncratic personal perspectives to the younger generations (Mezirow, 2000).

Reification. Mezirow (1981) asserted that individuals' meaning perspectives are also heavily influenced by reification: the idea, resulting from one's personal observation or experience, that nothing can be done to change societies, cultures, institutions, organizations, policies, or one's role or identity within them. Thus, the elite near the power centers of a society can promulgate these ideas into a self-fulfilling legitimacy of their own whereby hegemonic truth claims are proposed as theories, included in the language, popularized by media, accepted as tradition, and adopted as ideologies, thereby influencing individuals to behave as society expects or risk marginalization. Even so, embedded within these marginalized people are likely to be found alternatives that defy the reified unrealities (Mezirow, 2000). One example could be those who present (a) philosophical arguments based on logic, and (b) cosmological and teleological arguments based on objective scientific evidence to assert that a First Cause and Intelligent Design, characteristic of the theistic meaning perspective of creation ex nihilo, provide a more

reasonable alternative explanation for the nature and history of external reality than the predominant materialistic or naturalistic explanations (Geisler & Turek, 2004; Sire, 2009).

Ideology. Mezirow (1981) defined ideology as "a belief system and attendant attitudes held as true and valid which shape a group's interpretation of reality and behavior, and are used to justify and legitimate actions" (pp. 5-6). He explained that critical theorists believe it is important to be aware of how ideology not only filters individuals' perceptions of how things really are in relational roles with people at the individual, group, organizational, regional, or national levels, but also how these misperceptions are strengthened and maintained by physical and mental propaganda to keep the marginalized individuals convinced that any efforts to improve things or influence decisions are futile. However, Mezirow (2000) also held out hope: "Dramatic personal and social change becomes possible by becoming aware of the way ideologies…have created or contributed to our dependency reified powers" (p. 6).

Dependability. From Mezirow's (2000) perspective, which included the self-refuting postmodern claim that "there are no fixed truths or totally definitive knowledge" (p. 3), a frame of reference was evaluated as more dependable if it is "more inclusive, differentiating, permeable (open to other viewpoints), critically reflective of assumptions, emotionally capable of change, and integrative of experience" (p. 19). He characterized a frame of reference as more dependable if it "produces interpretations and opinions that are more likely to be justified (through discursive assessment) or true (through empirical assessment) than those predicated on a less dependable frame of reference" (p. 19). To this evaluation, he added an element affirming Piaget's (1985) conclusion on progressive equilibration: "insofar as experience and circumstance permit, we move toward more dependable frames of reference to better understand our experience" (Mezirow, 2000, p. 19). The study posits that transformative learning theory could inform and

guide the learning experiences designed into evangelical faith-based adult nonformal education programs.

Disorienting dilemmas. E. W. Taylor's (2000) terminology for disorienting dilemmas was "an acute internal and personal crisis" (p. 298) such as a marital separation or divorce, birth of a child, death of a loved one, or a personal injury. According to Mezirow (1981), when adults experience disorienting dilemmas as a normal and natural part of life that render their meaning perspective untenable, they use critical reflectivity to do a makeover on that cognitive structure to make it habitable again. He calls this makeover perspective transformation. Because such events are significant and often cause people to think in new ways, King (2009) includes life-changing experiences in her instrument measuring learning activities associated with perspective transformation even though they are not under the control of the educator: "life experiences of change give a more complete and accurate account of the learning activities that adult educators [do] have control over" (p. 18). Mezirow's (1981) research found a positive correlation between the magnitude of the disorienting dilemma and the likelihood of perspective transformation.

Perspective transformation. Mezirow (2000) defined perspective transformation as "the learning process by which adults come to recognize their culturally-induced dependency roles and relationships and the reasons for them, and take action to overcome them" (pp. 6-7). This is notably similar to Piaget's (1985) conceptualization of disequilibrium: the cognitive disorientation felt "when we experience something that does not fit what we know" (Yount, 1996, p. 77). Mezirow (1981) posited that adults arrive at perspective transformation destinations from two directions: some experience a flash of awareness of how their meaning perspectives have stunted or skewed their self- or social understandings; more commonly, the full realization gradually dawns on adults as a result of minor adjustments to meaning

perspectives over a span of time. Mezirow (2000) enumerated four ways that perspective transformation occurs: (a) new frames of reference are learned or (b) existing but deficient ones are expanded, while (c) habits of mind or (d) points of view are transformed. "Transformation refers to the movement through time of reformulating reified structures of meaning by reconstructing dominant narratives….by becoming critically reflective of their assumptions and aware of…the source, nature, and consequences of taken-for-granted beliefs" (Mezirow, 2000, p. 19). Mezirow (1981) distinguished perspective transformation in adults from Piaget's adaptation or primary enculturation in children "because children are not critically self-conscious, are usually unaware of how circumstances have contrived to dictate their relationships and commitments to parents or mentors" (pp. 8-9). Mezirow (2000) found that adults undergoing a perspective transformation often experience the following phases as their new viewpoint comes into ever-sharper focus:

- A disorienting dilemma;
- Self-examination with feelings of fear, anger, guilt, or shame;
- A critical assessment of assumptions;
- Recognition that one's discontent and the process of transformation are shared;
- Exploration of options for new roles, relationships, and actions;
- Planning a course of action;
- Acquiring knowledge and skills for implementing ones plans;
- Provisional trying of new roles;
- Building competence and self-confidence in new roles and relationships;
- A reintegration into one's life on the basis of conditions dictated by one's new perspective. (p. 22)

Mezirow's (1981) conceptualization of disorienting dilemmas and their resulting perspective transformations as being a normal and natural part of adult life align well with two prominent adult-development theories as well as faith-development theory. For example, Levinson's (1978) Adult Development theory divides adult life into an early (17-45), middle (40-65), and late (over 60) periods. The transition from one time frame to the next is precipitated by change(s) or event(s) that cause(s) doubt about and dissatisfaction with the way one's life had been thereto arranged, which motivates the individual to look for new alternatives and make new arrangements. A second parallel is Erikson's Stages of Identity Development model, which proposes that adults find their identity in life developed by whether or how they resolve certain crises that come within typical age ranges. A third parallel is Faith Development theory. Fowler (1981) has found that, similar to the two adult developmental theories mentioned previously, when the comprehensive mental image of reality and order that faith in an ultimate power center produces in each person fails to deliver or collapses, taking people's life-devotion investments and/or deeply rooted sense of identity down with it, "it results in dislocation pain and despair" (p. 31). These three parallels correlate well with the andragogical assumptions (Knowles et al., 2005) regarding adults' readiness and motivation to learn. The resolution, or way out of the disorienting conditions in all three of the above developmental theories, is critical reflectivity (Mezirow, 1981; Fowler, 1981).

Critical reflection. By using what Mezirow (1981) called critical reflectivity, adults can take advantage of their unique ability to be aware of why one's roles and relationships in reality have their attached particular felt meanings. He asserted that this may be the most significant difference in learning characteristics between children and adults. Late adolescence or early adulthood is the earliest point in life that one can begin to critically reflect upon the meanings

and assumptions inherited in or carried forward from childhood, scrutinize their influence on how one selects and interprets data, and develop alternative mental models for decision-making (Mezirow, 2000). Indeed, according to Erickson's (1982) stage model of human development, seeking one's own identity in late adolescence and early adulthood is one's main psychosocial crisis at that stage of life.

Mezirow (2000) also distinguished critical reflection as used in psychotherapy to focus on assumptions regarding interpersonal relationships from critical reflection as used by adult educators to reframe the cognitive, affective, and conative assumptions underlying practically all the issues adults face in their life. He wrote "a mindful transformative learning experience requires that the learner make an informed and reflective decision to act on…reflective insight…[This] often involves overcoming situation, emotion, and informational constraints that may require new learning experiences …to move forward" (p. 24).

Faith-Based Education

For centuries, faith-based education sponsored by churches has been synonymous with the term Sunday school: programs offered on Sunday mornings, commonly stratified into grades emulating formal education or into age- appropriate classes, distinctly separate from the congregation's worship service in which a sermon is preached (M. C. Brown, 1901; Pray, 1847). Many American Evangelicals today would likely agree that Sunday school is a central, integrated function of the Church (Towns, 2001). But it is interesting to note in the statement "Sunday school…is perhaps, the best structured agency in the local church for carrying out most effectively the teaching ministry of Christ" (Towns, 2001, p. 41) what could be an uncritically assimilated paradigm of the pervasive modern educational frame of reference collectively held by North American society and culture (Mezirow, 2000). The continued measurable decline in

the number of Americans identifying themselves as Evangelical Protestants in recent decades, especially those in the early adulthood demographic, suggested that reliance on current or traditional Sunday school methods and/or activities may no longer be the most effective or best-structured way to conduct faith-based education (Shirley, 2008).

To fully understand the impetus of their faith-based education, the study must first review the distinctiveness of the Evangelical branch of American Protestant Christianity itself.

Evangelical Protestantism

"Despite the fact that many people, including the media, lump evangelicals and fundamentalists together…evangelicalism continues to define itself as a distinctive form of American Protestantism" (Queen et al., 1996, p. 229). Evangelical is derived from Greek words in the New Testament meaning either (a) to preach, bring, show, or declare good or glad tidings, news, or information; or (b) the glad or good news, tidings, or information itself (C. G. Brown, 2004). He explained how Evangelical was the identity chosen by the followers of Martin Luther during the 16th century Reform movement to differentiate themselves from Roman Catholicism's emphasis on a central hierarchical authority, scripture mediated by ecclesiastical tradition, and grace earned both by good works and by sacraments dispensed by clergy.

In contrast to Europe, where Evangelical merely equates to not Catholic, Evangelical in the United States context signifies a broader, more specific movement and culture whose revivalism, Abolition, Temperance, and Christian higher education movements have shaped American history in major ways (Queen et al., 1996). Evangelicals regard the Holy Bible as the inspired and inerrant Word of God, in contrast to others who disregard it as merely the words of men, or romantics who consider only its symbolic meaning (C. G. Brown, 2004). Therefore, Evangelicals utilize the "preached and printed words [of the Bible] to serve the priestly function

of applying the Word [of God] to the world of lived experience" (C. G. Brown, 2004, p. 3) in a revivalist style that emphasizes a personal conversion experience (Pearcey, 2005) referred to in the Gospel of John (3:16) as being "born again" or "born from above." This helps explain the Evangelical impetus for promoting literacy, supplying scripture, and providing faith-based education. A particular demographic item imported from the U.S. Religious Landscape Survey was designed to measure the extent to which participants considered themselves to be evangelical Christians.

The popularity of the folksy revivalist style of Evangelical Protestantism enabled it to follow the western expansion of the United States through its frontier days of the 1800's (Moreland, 1997; Pearcey, 2005). Because singles from the United States could head west faster and farther than the stabilizing American social institutions of government, formal education, churches, or even families could, the frontier was especially attractive to adventurers with good reasons to escape their past; this gave the frontier a distinctively crude, uncivilized, and often brutal nature (Pearcey, 2005). To respond to this challenge, evangelists from denominations such as Baptist and Methodist adopted the revival-movement style: they would "grab people by the throat with an intense emotional experience to persuade them of the power of the supernatural, then…tell them to stop drinking, stop shooting each other, and live straight" (Pearcey, 2005, p. 263). In Mezirow's (2000) terminology, instead of using their sermons to enable their congregations to make minor systematic adjustments to their non-biblical habits of mind and points of view that over a period of time could be mentored through participation in church life experience into a theologically accurate and dependable frame of reference, revivalist preachers "began to use their sermons to press hearers to a [disorienting dilemma], in order to produce a conversion experience" (Pearcey, 2005, p. 263).

Even though adults by the millions nationwide attend church services on Sunday mornings, "few are reached [that is, changed or transformed] with experiences that affect their lives and the problems of society. The church is missing an adult opportunity greater than that of any other institution in our society" (Apps, 1972, p. 13). "As society changes and becomes more complex with greater social and cultural issues, the religious education of adults must also evolve" (Rowland, 2007, p. 4). Moreland (1997) asserted that faith-based education should become more effective at "helping people overcome intellectual obstacles that block them from coming to or growing in the faith by giving them reasons for why one should believe Christianity is true and by responding to objections raised against it" (p. 26). Even if evidence is provided to overcome the truly intellectual obstacles to accepting Christianity as true, others have noted apparently volitional obstacles. "Belief requires assent not only of the mind, but also of the will….[Many] don't *want* to believe….[because] Christianity would require them to change their thinking, friends, priorities, lifestyle, or morals, and they are not quite willing…to make those changes" (Geisler & Turek, 2004, p. 30).

The recurring themes of (a) an increasingly secular ideology in society and (b) the perceived general failure of faith-based education to help believers develop a characteristically biblical frame of reference appear in evangelical literature as possible causes for the decline in the percentage and influence of Christians in America since the early 1990's (Allen, 2002; Eldridge, 2008; Hadaway, 1999; Shirley, 2008). Eldridge (2008) wrote "The world has changed dramatically since [1995].…The secularization of the culture [has] only increased the importance of producing fully developed followers of Jesus Christ " (2008, p. xi). Geisler and Turek (2004) viewed the problem as "many Christians…cannot justify their belief with evidence. They simply have faith that the Bible is true. And merely wanting something to be true doesn't make it so" (p.

30). Pearcey (2005) illuminated the need for faith-based education to expose the modern and/or postmodern culture's hegemonic tactics of compartmentalizing all matters of faith into the limited and irrelevant sphere of personal values while touting its own supposedly neutral facts: "We have to insist on presenting Christianity as a comprehensive, unified [frame of reference] that addresses all of life and reality. It is not just religious truth but total truth" (p. 111). She gave this example: "if you talk about Christianity being true or historically verifiable, many people would be puzzled. Religion is assumed to be a product of human subjectivity" (pp. 116-117). In Pearcey's (2005) view, "this pervasive sense that faith is by [the predominant culture's] definition individual and subjective may be the prime reason for the loss of credibility on the part of religious institutions in our day" (p. 117). Transformative learning theory specializes in calling taken-for-granted cultural assumptions like these into question and giving adults a more reliable frame of reference through which to view the world (Mezirow, 2000).

Mezirow (1981) labeled as psycho-social those faulty personal and cultural assumptions that both (a) often seem immune to change, and that (b) require transformative learning methods to change the way adults think. Mezirow (1981) suggested that currently unquestioned, underlying cultural assumptions and behavioral characteristics must be critically examined so that perspective transformations can occur; thus, enabling adults to "transition to a significantly new place in their understanding of values, beliefs, assumptions, themselves and their world" (King, 2009, p. 4).

Faith-Based Education Programs

Although now a nearly ubiquitous feature of church-sponsored faith-based education on Sunday mornings, the Sunday school movement was actually begun by a lay person in the late 18th century in Gloucester, England as a ministry alongside, but separate from, the local Church.

The confluence of three factors: the lack of spiritual maturity in people's behavior, illiterate poverty, and the pervasive effects of industrialization created an urgent social need that influenced the development of what became the Sunday school movement (Lawson, 2001; Pray, 1847). Children, who migrated with their families from the traditional way of life on farms and in villages to crowded cities to earn wages in factories, worked long hours Monday through Saturday. On Sundays, the only day the factories shut down, the children swarmed the streets to spend their energy "in noise and riot…cursing and swearing….given up to follow their inclinations without restraint, as their parents, totally abandoned themselves, [had] no idea of instilling into the minds of their children principles to which they themselves [were] entire strangers" (Raikes, 1783, as cited in Pray, 1847, pp. 139-140). Raikes founded the Sunday school either in 1780 (according to Lawson, 2001) or 1781 (according to Pray, 1847) to supply children aged 6 to 14 a way out of poverty, a way in to a supportive community, and a way to discover the purpose for their life. "Raikes placed a priority on teaching children the tenets of the Christian faith" (M. Anthony, 2001, p. 207).

William Fox, a businessman who became the founder of the London Sunday School Society, allowed Raikes' idea to gain wide, even international, acceptance. In less than three years, about 250 children were involved; after seven years, 250,000 (Pray, 1847). As it spread to others cities and to other countries, the Sunday School Society, then later, Union, allowed the ministry to make itself better known, expand curricula for its learners, and develop aids for its teachers (Lawson, 2001).

The first recorded intentional inclusion of adults in the concept of Sunday school was the Sunday Charity Schools started by Hannah More and her sisters in 1789 in Cheddar, England (Pray, 1847). More and her sisters rented a property, hired a well-qualified teacher, and set about

educating the illiterate poor on Sundays: children in the mornings, adults in the evenings. After four years, More had 200 children and over 200 adults attending her school weekly.

Although Raikes was credited with starting the Sunday school movement, in Protestant Christian America, evidence of schooling children on Sunday predates Raikes' Sunday school by 200 years. The settlers who came to the New England colonies in search of freedom from religious persecution of the established motherland church taught their children once per week, although not necessarily on Sunday (M. C. Brown, 1901; Pray, 1847). "Religion, pure and undefiled, was…what they valued most. And next to that was learning" (Pray, 1847, p. 190).

Starting in the early 1800s, a shift, away from Sunday schools staffed by paid teachers sponsored by private individuals or societies for secular purposes and toward Sunday schools with volunteer teachers sponsored by churches for Bible study and spiritual growth, became noticeable (M. C. Brown, 1901). In 1811, Philadelphia's Evangelical Society started a new model of Sunday school in which the teachers were volunteers, not paid. By 1820, the sentiment for cooperation among the various local and state Sunday school societies led to the call for a national Sunday school union. The American Sunday School Union was constituted in 1824; its Annual Report stated its purpose was, in part, to "disseminate useful information, circulate moral and religious publications in every part of the land, and endeavor to plant a Sunday school wherever there is a population" (M. C. Brown, 1901, p. 32).

One evangelical denomination approached the Sunday school concept from a perspective that made it very attractive and motivated its churches to commit to it in a significant way. "While other dominations viewed Sunday school as merely an education methodology, Southern Baptists were working to create an organization that would both reach and teach for the church" (Fitch, 1983, as cited in Mathis, 2008, p. 400). May (1983, as cited in Mathis, 2008) explained:

"only when Baptist churches approved the Sunday School as a teaching agency in the church and recognized the need for their own schools did the denomination make significant advances Sunday School work" (p. 399).

Faith-based pedagogy. Sunday Schools have been synonymous with the application of pedagogy, defined by the adult education community as "an approach to childhood learning" (Merriam & Brockett, 1997, p. 135), "the art and science of teaching children" (Knowles et al., 2005, p. 61), and "traditional teaching" (Roper, 2003, p. 467). This culture and tradition might, in itself, make a faith-based educational program labeled *Sunday school* unattractive to most adults who have "a deep psychological need to be seen by others and treated by others as being capable of self-direction. They resent and resist situations in which they feel others are imposing their wills on them" (Knowles et al., 2005, p. 65). Apps (1972) observed that "some adults are apprehensive about church adult education because they don't know what it is. Maybe it's the word education. We're challenged to help potential participants...see education differently than they remembered it as youngsters in an elementary secondary school" (p. 28).

Faith-based education schedules. Investigating the impact of the education apprehension caused by the term Sunday school and its pedagogical, traditional teaching styles on adult participants in faith-based education is beyond the scope of the study. However, what is within the study's scope is investigating the extent to which the scheduling of a faith-based adult education activity was associated with perspective transformations. Barna (2005), Coleman (1993/2000), and Putman (2010), among others, advocated alternative learning experiences that promote levels of significant interaction and involvement beyond what a teacher can do once per week in a church's Sunday school classroom; for example, (a) meeting in small groups in members' homes to do life-based activities like eat dinner in addition to faith-based activities, (b)

pooling the group's resources to help small families do big jobs such as relocating to a better address, or (c) fostering one-on-one mentoring, coaching, or accountability relationships to foster growth and development.

Affective domain. Perspective transformation relies on the distinctly adult cognitive ability for critical reflectivity (Mezirow, 1981), but the results from that cognitive ability cannot be effectively pursued apart from considering the affective domain (Krathwohl, Bloom, & Masia, 1964). "A large part of what we call 'good teaching' is the teacher's ability [in many instances…more intuitively than consciously] to attain affective objectives through challenging the students' fixed beliefs and getting them to discuss issues" (Krathwohl et al., 1964, p. 35). "Teaching is a transformative activity. Effective teaching … [can] create remarkable shifts in students' knowledge, awareness, skills, and ways of being. The [educators'] challenge … is to identify the appropriate approach to a … subject … to produce the most positive outcomes for students" (Roper, p. 471). If faith-based education providers for adults are unaware of these and other aspects distinct to adult learning, Apps (1972) warned that it may not be an intentional, prominent feature of the learning environment they set up because "many people responsible for adult education programs often, and sometimes unconsciously, follow the same educational patterns they observed when there were students" (p. 28). Apps (1972) asserted that too often this lack of awareness causes those engaged in faith-based adult education to misunderstand what they are trying to achieve: "Learning is thought of as acquiring units of information ...the number of college credits...taken, or the number of Bible classes... attended" (p. 29). He urged faith-based adult educators who hold this mental model to transform their frame of reference regarding their purpose: "Our aim for contemporary adult education must not separate facts from emotion. We must deal with the whole man, his needs, his loves, his hates. [Not] memorization

of isolated facts" (1972, p. 30). Apps held that faith-based education should "be real…touch people 'where they live,' [and] relate to their lives as they live them. Adult education must be seen as one of the most important things a person does in his life" (1972, p. 30). Apps (1972) then specified his ultimate goal as a faith-based adult nonformal education program activity leader: "I believe the purpose of contemporary church adult education is to free people to be themselves, to be individuals, to develop their own potentials" (p. 30). These words presaged Mezirow's (1981) clarification of the inherent emancipatory aspects of transformations in meaning perspectives by which adults become "critically aware of how and why the structure of psycho-cultural assumptions… [constrains] the way we see ourselves and our relationships" (p. 6). Demolishing these faulty structures, or strongholds, enables individuals to "find one's voice" (Mezirow, 2000, p. 15) in the discourse involving decision-making in situations ranging from the microcosm of an interpersonal relationship up to and including one's role in a democratic society.

Chapter Summary

The study posits that theories regarding adult learning, adult education, adult development, transformational learning, and transformative learning experiences could all benefit those involved in Evangelical faith-based adult nonformal education, making it more effective. These theories could inform practitioners as they facilitate their learners' construction of frames of reference dependable enough to withstand the normal developments and significant life events experienced first-hand or observed in others. Without dependable biblical frames of reference, developments and events could likely trigger disorienting dilemmas requiring believers to transform their perspectives (Mezirow, 2000) to conform more to their surrounding modern or postmodern culture than to their faith. This suggests that learning experiences in adult faith-based education should (a) appropriately challenge and support learners, (b) provide

learners opportunities to safely risk testing the soundness of their cognitive structures in a caring atmosphere, and (c) help learners understand the adult developmental cycles, seasons, and stages they can normally expect. Thus, learning experiences with these properties might more effectively develop deep, faith-based learners who "can engage with the world of ideas and learn from experience; who can examine and challenge assumptions; who can…arrive at thoughtfully considered commitments; and [relate] to others from a place of mutual enhancement rather than need" (K. Taylor, 2000, p. 159).

CHAPTER 3

RESEARCH METHODS

The chapter provided a description of the research design, participant sample, instrumentation, and data-analysis steps planned for this inquiry. The study collected data by a cross-sectional retrospective (Johnson & Christensen, 2008) survey of a cluster sample of participants in faith-based adult nonformal education sponsored by evangelical churches. The instrument was an adapted version of Madsen and Cook's (2010) Learning Survey (LS), designed to measure the perceived occurrence of perspective transformation and the relative extent to which reflection, individuals, learning assignments and activities, non-curricular factors, and demographics were influences associated with the change.

Sample

Unit of Analysis

The unit of analysis (Babbie, 1986) in the study was the individual learner in English-language evangelical faith-based adult nonformal education programs. Although it can be said to occur at the group or organizational level (Yorks & Marsick, 2000), the study focused on experiences associated with perspective transformations at the individual level (Mezirow, 2000).

Sampling Design

The population (Johnson & Christensen, 2008) under study was participants in faith-based adult nonformal education sponsored by churches associated with the three most populous evangelical protestant religious bodies in a given metropolitan area in a Midwestern region of the United States (Association of Statisticians of American Religious Bodies, 2002). These three accounted for 69% of evangelical adherents and 47% of all evangelical congregations in the area (Appendix A). However, a sampling frame of the population would have been impractical, if not

impossible, to compile. Even if a sampling frame had been available, the cost in terms of both time and money of administering the paper copy survey individually to randomly-selected participants widely dispersed across the region would have been prohibitive (Johnson & Christensen, 2008). Therefore, one-stage cluster sampling was chosen because the elements of the study congregate into naturally-occurring, easier-to-identify clusters (Johnson & Christensen, 2008). The first step of the selection process was to create a sampling frame of the clusters (Johnson & Christensen, 2008) then stratify the clusters on the distinctive aspects of their mainstream, restorational, or charismatic perspective on worship services (Table 1). Once selected, all participants in that cluster's adult education program would be sampled.

With the sampling frame separated into non-overlapping subgroups on the stratification variable, the second step would be the simple random selection, with replacement, of the target number of clusters within each stratum (Castillo, 2009). The number in each subsample was desired to be proportional to the size of its stratum (Johnson & Christensen, 2008), that is, having the same sampling fraction (Castillo, 2009), relative to the total population of churches in the sampling frame as shown in Table 2. Proportional sampling should produce a sample that accurately reflects the characteristics of the population of interest as a whole (Babbie, 1986). This contrasts with disproportionate sampling which alters the ratios as needed to optimize a

Table 1

Worship Service Perspective Stratification Variable

Aspect	Mainstream	Restorational	Charismatic
Musical instruments	Yes	No	Yes
Glossolalia	No	No	Yes

Note. Perspectives derived from Southern Baptist Convention (2000), Baxter (n.d.), and General Council of the Assemblies of God (2010).

detailed analysis of the subgroups themselves: for example, by oversampling small subgroups to reach a threshold for statistical analysis while undersampling populous subgroups (Johnson & Christensen, 2008). Thus, proportional sampling was the stratified random method selected because comparing subgroups was not the purpose of the study.

The final step in this one-stage cluster sampling would be to invite all adults aged 18 and older in faith-based adult nonformal education programs in the selected churches to participate in the study (Trochim & Donnelly, 2007). The number and response rate of elements in each cluster would determine the final sample size (Johnson & Christensen, 2008).

Survey Instrument

The instrument for the study was Madsen and Cook's (2010) Learning Survey (LS). The LS was considered the most appropriate available instrument for measuring perspective transformation in faith-based adult nonformal education due to its pedigree, reliability, validity, and ability to use higher-level statistical analyses (King, 2009; Madsen & Cook, 2010). The LS evolved from King's (2009) proven Learning Activities Survey (LAS), considered the first significant reliable and valid quantitative instrument broadly applicable to most adult educational

Table 2

Proportional Random Sampling Frame

Aspect	Mainstream	Restorational	Charismatic
Population size (churches)	87	35	27
Sampling fraction (churches)	30/149	30/149	30/149
Sampling proportion	58%	24%	18%
Proportional sample size (churches)	18	7	5
Proportional sample size (adults)	175	70	54

Note. Total $N_{churches}$ = 149; total $n_{churches}$ = 30. Total n_{adults} = 300.
Adapted from Castillo (2009).

contexts to measure perceived perspective transformation (King, 2009; Madsen & Cook, 2010; E. W. Taylor, 2000). The LS inherited its validity from its predecessor, the LAS; grounded in his (1981) theory, Mezirow himself was one of the five experts on the panel that validated the LAS in its final form. Its progeny, the LS, has shown adequate reliability (Cronbach's $\alpha = 0.90$ for 17 item scale for the dependent variable) in its initial deployment in a study of transformative learning at Abu Dhabi Women's College (Madsen & Cook, 2010).

Number of Participants

Literature has shown that selecting the number of elements in a sample results from the relative weight of multiple factors in the sample size decision, including, but not limited to considering the realities of the

- Administrative direction or constraints (Trochim & Donnelly, 2007);
- Resources (time, money) required to collect the data (Babbie, 1986; Castillo, 2009; Isaac & Michael, 1995; Rudestam & Newton, 2007);
- Target population's availability and accessibility (Trochim & Donnelly, 2007), heterogeneity (Johnson & Christensen, 2008), and size (Castillo, 2009; Johnson & Christensen, 2008);
- Study's comparability to the literature (Heppner & Heppner, 2004; Johnson & Christensen, 2008), unit of analysis, that is, classrooms (clusters) or individuals, and whether a study is exploratory in nature or is a pilot (Isaac & Michael, 1995);
- Willingness and/or ability to tolerate or avoid committing a Type II error (Rudestam & Newton, 2007);
- Relative strength of both the effect (if one exists) of the independent variable(s) on the population of interest (Heppner & Heppner, 2004; Johnson & Christensen,

2008; Rudestam & Newton, 2007) and the strength of the relationship of those variables to each other (Heppner & Heppner, 2004);

- Desired level of significance (Castillo, 2009; Heppner & Heppner, 2004; Isaac & Michael, 1995; Parkin, 2003; Rudestam & Newton, 2007) and level of confidence or margin of error (Castillo, 2009; Heppner & Heppner, 2004; Isaac & Michael, 1995; Johnson & Christensen, 2008; Parkin, 2003; Rudestam & Newton, 2007) of the study;
- Type(s) and efficiency of statistical test(s) employed to measure the effect of the independent variable(s) (Babbie, 1986; Heppner & Heppner, 2004; Johnson & Christensen, 2008; Rudestam & Newton, 2007);
- Number of sub-categories into which the total sample will be broken down for analysis (Isaac & Michael, 1995; Johnson & Christensen, 2008);
- Anticipated response rate (Johnson & Christensen, 2008);
- Propriety of the statistical inference(s) in the study (Rudestam & Newton, 2007);
- Extant rules of thumb (Babbie, 1986; Heppner & Heppner, 2004; Johnson & Christensen, 2008; Parkin, 2003).

Therefore, it was decided that 30 churches would be randomly selected from the sampling frame of 149 churches to fill the three strata proportionately. All adult participants of educational programs in those 30 selected churches would then be asked to complete the cross-sectional survey. The primary unit of analysis would then be a total sample size of at least 300 adults stratified proportionally to maintain the overall representation of the population. If needed to obtain an adequate sample of the unit of analysis, additional churches would be randomly selected within each stratum to replace any churches that declined to participate.

Source of Participants

The sampling frame of churches used in the study was built by first reviewing the most current data (Association of Statisticians of American Religious Bodies, 2002) for a given Midwestern United States metropolitan area. The three religious bodies in the evangelical protestant family with the largest number of churches aligned precisely with three distinct worship-service perspectives in Table 1. However, the churches in those religious bodies were not identified. A search through the online and print-based telephone directories for the region proved unsatisfactory for the purpose of the study due to the ambiguity of which stratum, if any, some of the churches were listed. Some churches were listed under more than one heading. A solution was found on the Internet site of the parent organizations of two of the religious bodies: the ability to search for affiliated churches within a given radius of a US Postal Service Zip Code. To utilize this feature, those two criteria for of the region of interest had to be found. The geographical center was determined by entering the names of the cities at the eastern and western extremes of metropolitan area defined by its regional telephone directory, using a popular web site for driving directions to get the road distance between those cities, then dividing that distance in half. The procedure was repeated for the north-south extremes. Both axes were roughly equal in length; their intersection fell clearly within the limits of a city with a single Zip Code. That Zip Code and the radius of the region were then entered in to the search engines provided by the two national parent organizations for a list of their churches. An Internet site for national information on the third stratum of churches provided the remaining source, but did not feature a search engine; it merely offered a list of churches by city. This problem was resolved by aggregating the list of cities generated for the first two strata: if a church was located in any of those cities, it was obviously within the metropolitan area of interest. Distances to the cities

unique to the third stratum were checked using the driving directions web site to determine if they were within the radius defining the area of interest. With the list of churches in each of the three strata complete, the regional telephone directory's web site was consulted to determine if each church had a telephone number. Those churches were then entered into a Microsoft Excel spreadsheet for sorting and selection.

To select the churches in each stratum of the sampling frame, they would first be sorted by city. Then the Microsoft Excel "Rand()" feature would be used to assign each congregation a random number (Rudestam & Newton, 2007). Because output from this function is volatile, its output would be copied and pasted back into the cells as values to prevent the numbers from changing. The list would then be sorted from lowest to highest on this random number for the selection sequence in pursuit of the quantities in Table 2 for each stratum.

Data Collection Plan

This section described the specific actions the study planned to take with the selected churches in each stratum to explain the purpose of the study, win their cooperation, coordinate administration of the survey, and collect the responses (Rudestam & Newton, 2007).

Initial contact. Contact would be initiated in the late summer of 2012 when the researcher telephoned the pastor (mainstream and charismatic churches) or senior minister (restoration churches) to explain that the church was randomly selected for inclusion in the study. The initial contact introduced the study's author, described the purpose and procedures, and offered an e-mailed draft copy of the instrument to inform the decision to decline or participate. Pastors/ministers with e-mail accounts were sent a draft copy of instrument in the Portable Document Format attached to the message; those without e-mail were mailed a printed copy. If the person answering the phone stated the pastor or minister was unavailable, the

researcher asked for a telephone appointment or an e-mail address, or settled for leaving a message with the assistant. If the call reached an answering machine, the researcher left a brief message and callback number; it was expected that most pastors and all senior ministers, especially of larger churches, would not reach a decision on their own but include others in the process. Thus, it was asked that draft copies of the instrument be distributed only to those directly involved in the decision-making circle. The e-mail sent to the pastors/ministers asked that they reply with their pre-approval to participate in the study. Printed copies of the affirmative replies to the e-mailed requests for pre-approval gained in this manner were attached to the Institution Review Board (IRB) request form (Appendix F) to help expedite its approval. Details of the logistics for administration and return of the survey for each church were arranged after receiving pre-approval.

Initial distribution. After securing IRB initial approval to collect data (number of participants subsequently increased, modified approval in Appendix G), the pre-arranged number of paper copy instruments was sent to the designated contact person in the participating churches. Each class or group of adults in each church was provided an instruction sheet (Appendix H) to be read aloud that overviewed the purpose of the study, encouraged participation, but explicitly stated the right to decline or terminate involvement at any time without penalty or loss of benefits. Instructions on the sheet asked participants to place their finished surveys in the large manila envelope for that class. Those whom the point of contact for the church had designated as administrators for each class were asked to seal the envelopes and return them back to the church's point of contact after all participation had ended. The contact person for each church was asked to ensure all envelopes from the classes were placed into the

large return envelope for return back to the researcher. The instruction sheet had the researcher's contact information in case more information was needed.

Follow-up contact. If necessary, a follow-up contact verified the packets arrived. If the completed surveys were not returned using the provided postage-paid envelopes by the pre-arranged time, the researcher followed up with the point of contact for the church.

Final contact. After the completed surveys were received from each participating church, the researcher sent a message of appreciation to the pastor or senior minister thanking him or her and the church for their participation in the research study.

Instrumentation

This section described the instrument: why it was considered the best and/or most appropriate for this specific research environment, how it would measure the variables identified in the research questions, the psychometric adequacy of the instrument, and how the original was adapted for use for the study (Heppner & Heppner, 2004; Rudestam & Newton, 2007). The lead author of the instrument gave permission for its use (Appendix B).

Measurement of Variables

Madsen and Cook (2010) developed Likert-type response items to measure each of the three concepts by substantially revising and augmenting King's (2009) Learning Activities Scale (LAS). The LS used 18 Likert-type response items to measure participants' perception of perspective transformation on a scale of 1 - 5 (strongly agree to strongly disagree, respectively). The relationship of all instrument items to the study's research questions are in Table 3.

One open-ended item in the LS survived unchanged from the original LAS to provide respondents an opportunity to describe how their educational experience changed their life. The degree to which participants' responses in their own words aligned with the quantitative findings

Table 3

Source of Instrument Items and Relationship to Research Questions

Instrument		Research
Item	Source: Topic (Category of Variable)	Question
1 - 3	LS: Perception of change (DV)	1 - 4
4 - 9	LS: Considering/making change in thought/action (DV)	1 - 4
10 -18	LS: Awareness of benefits of change/prediction of future (DV)	1 - 4
19 - 20	LS: Personal reflection (IV)	4
21 - 25	LS: Influential individual (IV)	1 - 4
26 - 35	LS: Learning assignments and activities (IV)	1 - 4
36 - 41	LS: Outside influences (IV)	4
42	LS: Length of involvement (PD)	4
43	LS: Description of change (IV)	1 - 4
44	LS: Gender, age (GD)	2, 3
45	RLS demographic: Self-description and duration as evangelical (PD)	1 - 4
46	Developed demographic: Timing, food provision of activities (PD)	4
47	RLS demographics: marital status and parental status (GD)	4
48	RLS demographics: Highest education/skills training completed (GD)	4
49	RLS demographic: Perspective of the sponsoring denomination (PD)	1- 4

Note. LS = Learning Survey (Madsen & Cook, 2010), used with permission; RLS = Religious Landscape Survey (Lugo, et al., 2008), used with permission. DV = Dependent Variable. IV = Independent Variable. GD = General Demographic variable. PD = Particular Demographic variable.

could add credibility and trustworthiness to the determination of whether a perspective transformation occurred, and if so, what independent variables were associated with it (Johnson & Christensen, 2008). If results from this qualitative item converged with or corroborated the data from the quantitative items, the validity of and confidence in the interpretations and

inferences drawn from the study would increase (Greene, 2007). Open-ended responses could help shed light on whether the influence of any of the variables in the study could be generalized across the outcomes of different but related variables (Johnson & Christensen, 2008). If responses from this qualitative item converged or corresponded with data from the otherwise quantitative instrument on the same phenomenon, they could increase the confidence in the inferences drawn from this inquiry. This conformed to what Greene (2007) referred to as triangulation. A qualitative item for the purpose of triangulation may enable the researcher in a small way to "increase the validity of construct and inquiry inferences by using methods with offsetting biases, thereby counteracting irrelevant sources of variation and misinformation or error" (Greene, 2007, p. 100).

Adaptation of the LS

Employing Madsen and Cook's (2010) LS to measure perceived perspective transformation in the evangelical faith-based adult nonformal education followed one of King's (2009) "strands of opportunity....to expand [future transformative research] across the full spectrum of lifelong learning" (p. 305). However, to accomplish this goal, terminology in the original LS (Madsen & Cook, 2010) had to be extensively edited to fit the evangelical faith-based adult nonformal education context. Adapting the LS, which itself is a modified LAS, fell within King's (2009) guidelines pertaining to how her original assessment tool should be configured for each context in which it is employed, especially in "the learning activities… and demographic questions….Concerted efforts should be made to employ terms that participants would easily recognize" (p. 37). This section detailed the changes that were made to the LS. The modified LS is in Appendix E; the original is in Appendix D.

Routine edits to Madsen and Cook's (2010) original items included replacing references to Abu Dhabi Women's College in the administrative instructions and item prompts with faith-based adult education. Renumbering the LS would also facilitate data entry; it was desired to shorten the instrument to less than 50 items. Item 1.12 of the LS (Madsen & Cook, 2010) required adding the male relationships in a family. Given that the faith-based education being studied was sponsored by churches, functional equivalents to college administrators, academic advisors, field trips, practicums, and extracurricular activities in the LS (Madsen & Cook, 2010) were needed. These were determined to be elders, pastors/ministers, mission trips, practical ministry, and events not sponsored by the church, respectively. Some selected churches neither used the term "classes" to refer to their faith-based educational programs nor referred to those who led them as "teachers"; therefore, more inclusive language needed to be used for Items 4.2, 4.4, 4.7, and 4.15 in the LS (Madsen & Cook, 2010).

Other adaptations presented more of challenge to achieve appropriate faith-based educational equivalents to the LS (Madsen & Cook, 2010) while being faithful to the original to preserve its validity and reliability. No direct equivalent to lab experiences (LS Item 4. 16, Madsen & Cook, 2010) was determined; therefore this item was replaced with what could be considered a related construct labeled "Prayer, fasting" (Item 35). To reduce the magnitude of the LS (Madsen & Cook, 2010) instrument, "Class/group projects" (Item 4.7) and "Class activity/exercise" (Item 4.15) were consolidated while "Staff members on campus" (Item 4.5), and "Internship" (Item 4.11) were considered to be low in relevance to the faith-based educational context and were eliminated. Conversely, a possible major influence in faith based education, "Programs on TV, radio, or the Internet" was not reflected in the LS (Madsen & Cook, 2010) and was added (Item 38). LS (Madsen & Cook, 2010) Item 4.1, "Other students at

the college," was moved to what was considered a more logical position at the end of the influential individual section. Because of its perceived significance as a source of qualitative data, the open-ended question of the LS (Madsen & Cook, 2010) was moved up from last place on the instrument to before the demographic questions.

The demographic items were the final remaining challenge in adapting the original LS (Madsen & Cook, 2010) instrument for use in the study's evangelical faith-based adult nonformal education context. "Current major" and "Location" (Madsen & Cook, 2010, Items 7 and 11) were considered not applicable and were eliminated. Options in "Prior Education" (Madsen & Cook, 2010, Item 8) were adapted to North American terminologies. Demographic items from the Pew Forum's Religious Landscape Survey (Lugo et al., 2008) were required to answer the survey questions. These questions required a slight modification to adapt them from their original oral presentation (Lugo et al., 2008) format to a written format. Questions 45, 47b, and 49 in Appendix E are the imported demographic items. After importing demographic items from existing instruments, the study still lacked an item needed to collect demographic data on Research Question 4; therefore, Question 46 concerning the learning schedule and provision for food was developed.

Study Variables

The dependent variable in the study was perspective transformation. The two independent variables were reflection and learning experiences. Added to the general demographics were ones particular to the study.

Perspective transformation. The dependent variable for the study was derived from three of the components at the core of perspective transformation: (a) perception of change, (b)

considering or making a change in thought/action, and (c) awareness of the benefits of change and prediction of future behaviors (Madsen & Cook, 2010).

Independent variables. Two comprised the study. First was participants' reflection. Second, termed "learning activities" (p. 37) in King's (2009) original LAS and "learning influences" (p. 135) in Madsen and Cook's (2010) derivative LS, was "learning experiences" in the study. Learning experiences subdivided into (a) individuals' influence, (b) learning assignments and activities, and (c) outside influences. These were studied to determine the extent to which they were associated with perspective transformations.

Demographic items. The general demographic variables of age, sex, marital status, and highest education/training level completed were augmented in the study by major life changes, parental status and experience and years of exposure to faith-based education. However, additional demographic items beyond those both in the original LAS and LS were required to answer the study's research questions. These additions were considered within King's (2009) guidelines for adapting the LAS to other adult education settings because "modification of the original assessment tool is especially needed in [the]…demographic questions" (p. 37). Even with extensive modification, the existing demographic items could not provide data adequate to answer the research questions; therefore, Rudestam and Newton's (2007) advice was taken to utilize existing instruments for the questions needed: "we do not consider adding [demographic] questions to…existing instruments in the same context as scale development" (p. 100). Demographic items imported for the study were church denomination, parent status, and evangelical self-concept. Permission from the Pew Forum on Religion and Public Life was granted to utilize these questions (Appendix C).

Data Analysis

This section described the statistical tools expected to be used to answer the research questions. Table 4 provides an overview. Data were entered into a statistical computer program for analysis. Descriptive statistics were first prepared from the quantitative data to ascertain the characteristics of the results from this survey. Frequency distributions, ranges, means, medians, modes, standard deviations, skewness, and kurtosis were then calculated as measures of central

Table 4

Overview of Variables and Statistical Analyses

Research Question	Variable			Data Analysis Procedures
	Type: Name	Category	Scale Type	
1, 2, 4	DV: Perspective Transformation	Perception of change scale Considering/making change in thought/action scale Awareness of Benefits of change & predictions of future behaviors scale	Ordinal	Factor analysis, Multiple regression
	DV: Described Transformation	Quantitative	Nominal	Frequency, Chi-Square
	IV: Reflection	Reflection scale	Ordinal	Factor analysis, Multiple regression
	IV: Learning experiences	Influential individuals Learning assignments and activities		
	IV: Outside influences	Outside influences		
	Demographics	Age, experience	Ratio	
3	DV: Perspective Transformation	Perception of change scale Considering/making change in thought/action scale Awareness of Benefits of change & predictions of future behaviors scale	Ordinal Nominal Nominal Nominal Proportional	ANOVA

Note. Descriptive statistics and Pearson's correlation analyses will be run on all quantitative items and therefore are not listed above.

tendency and distribution. Pearson's correlations provided direction and relative strength of relationships among the data. Assuming significant correlations, a factor analysis was conducted to determine if the data reflect the expected three dimensions of the dependent variable (Johnson & Christensen, 2008; Madsen & Cook, 2010). The dependent variable was studied for evidence of perspective transformation (Research Question 1). Next, the descriptive statistics of the Perspective Transformation items were studied and a multiple regression analysis was conducted to show the extent to which gender alone explained the variation in perspective transformation (Research Question 2). A 3 x 2 analysis of variance was expected to investigate the extent to which perspective transformation differed among genders in the adult age categories (Research Question 3). Lastly, either multiple regressions or analyses of variance, as appropriate, were expected to be used to study the extent to which the independent variables of personal reflection and learning experiences, as well as the various demographic variables, either explained perspective transformation or showed how it differed, respectively (Research Question 4).

Chapter Summary

This chapter detailed how a cross-sectional retrospective survey of a convenience sample of evangelical faith-based adult nonformal education participants was intended to provide data to answer the four research questions guiding the study. This chapter also made a case for Madsen and Cook's (2010) Learning Survey as the most appropriate instrument to measure this phenomenon, and provided details on how it was adapted to fit the new context.

CHAPTER 4

RESULTS

Introduction

This chapter provided a description of the results of the study that used a cross-sectional retrospective (Johnson & Christensen, 2008) survey of a nonprobability sample of participants in faith-based adult nonformal education sponsored by a stratified random cluster sample of evangelical churches. The instrument was an adapted version of Madsen and Cook's (2010) Learning Survey (LS), designed to measure the perceived occurrence of perspective transformation and the relative extent to which reflection and learning experiences were associated with the change. Data were first analyzed using descriptive statistics to assess their internal consistency; exploratory factor analysis was used to determine its structure. Then, analyses of variance and multiple regressions tested for significant differences in and predictors or explanations of, respectively, the self-reported perspective transformation factors.

Summary of the Study

This section was designed to review the purpose, significance or importance, and main points of the literature. Perspective Transformation is the process by which adults call into question their taken-for-granted foundational assumptions regarding reality and relationships that influence their attitudes, values, opinions, and decision-making (Mezirow, 2000). Because these assumptions collectively form a frame of reference that is closely associated with one's identity, any assaults on or faults in these bedrock assumptions could cause retaliatory emotional responses or intellectually-disorienting dilemmas (Mezirow, 2000). These reactions could be triggered by a sudden life-changing event, a slow accumulation of thought-provoking experiences, or from the challenges embedded in the curriculum and instruction of an

educational context (Mezirow, 2000). Transformative learning theory began with a 1978 *Adult Education Quarterly* journal article, attracted the attention of scholars and practitioners, and since the turn of the millennium has become the dominant pattern for teaching in higher-, professional-,and community education (Mezirow, 2000; Mezirow & Taylor, 2009), with the apparent exception of faith-based adult nonformal education sponsored by evangelical churches. The purpose of the study was to examine the extent to which adults in this context in a given area of the Midwestern United States have perceived perspective transformation to occur and to study their self-reported reflection and learning experiences associated with such transformations.

Data Collection

This section described the specific actions the study took to notify the pastor (mainstream or charismatic churches) or senior minister (restoration churches) of the randomly-selected churches, win their cooperation, coordinate administration of the surveys, and collect the responses (Rudestam & Newton, 2007).

Initial Contact

After receiving permission in late August, the researcher used the nationwide calling plan on his home telephone to contact the leader of the initial 18 mainstream, seven restorational, and five charismatic randomly-selected churches in the comprising the Midwestern region sampling frame. Five (17%) of the 30 phone numbers from the latest online and print editions of that region's telephone directory were non-operational. Repeated calls to three (10%) of the 30 churches in both the mornings and the afternoons on various weekdays throughout the four-week outreach window achieved no contact after allowing the phone to ring for 60 seconds. If contact was made with the church, the researcher introduced himself as a doctoral student from the University of Arkansas working on his dissertation concerning transformative learning. If the

pastor (mainstream or charismatic churches) or senior minister (restoration churches) was unavailable, the researcher's name and contact information was left with either the person who answered the phone or as a recording on the church's answering machine. Only one of the messages left on a recording machine at a church in the initial 30 was never returned, but at three churches, messages left with the person who answered the phone were never returned.

Upon reaching the pastor or senior minister at 20 of the initial 30 selected churches, the researcher introduced himself, described the purpose of the research, and sought to begin a trust-building conversation leading to a written pre-approval to administer survey at that church within a given timeframe. The senior minister at one church declined to participate almost immediately upon first contact. However, the pastor or senior minister at each of the remaining 19 of the initial 30 churches consented to review the draft of the survey before making a decision. One pastor, not equipped with e-mail, was mailed a paper copy of the draft survey through the U.S. Postal Service; the remaining 18 were e-mailed an electronic copy. After considering the draft of the survey they received, four pastors or senior ministers declined. Pastors at three other churches were willing to have the survey administered in an online format, but declined the survey in paper copy format to safeguard their limited Sunday-morning class time. Thus 12 of the original 30 pastors or senior ministers agreed to allow distribution the survey at their church. Pre-approvals thus gained were attached to the formal Institution Review Board (IRB) request (Appendix F) to conduct the research. However, since the desired number of participating churches had not been achieved, replacement churches were contacted.

In the same manner described above, 27 additional churches: 20 mainstream, three restorational, and four charismatic, were contacted during the four-week outreach window in an attempt to reach the 30 desired for the sample. The results were less productive: no connection

was possible with six of these churches, attempted calls went unanswered at another five, messages left on the answering machine at five churches and messages left with the person answering the phone at another two churches were never returned, and pastors at five churches declined upon initial contact. However, three of the four pastors willing to review a draft of the survey agreed to have their churches participate.

In total, the four-week outreach to 57 churches yielded 14 pastors or seniors ministers willing to have their churches participate in the study, a 25% response rate.

Initial Distribution

After securing IRB initial approval to collect data, the pastor, senior minister, or designee at each church was contacted to finalize the details for the number and delivery of survey instruments. The number of surveys needed by the third church brought the total number of surveys needed to the limit of participants authorized by the initial IRB request; a modification to increase the number of participants to 1000 was submitted and authority granted (Appendix G). At this point, one leader withdrew consent for that church to participate. Surveys for the remaining 14 churches were reproduced and placed in manila envelopes labeled for each grouping of adult participants. Included in each labeled envelope was an instruction sheet (Appendix H) for that grouping on how to administer the instrument. The envelopes were then assembled into a single package to be delivered to the predesignated contact person in each participating church. A cover letter in each package reminded recipients to administer surveys to adult faith-based education participants aged 18 or older. The researcher's contact information was provided in case more information was needed. Plans to provide the churches with postage-paid envelopes for the return of completed surveys to the researcher (see Chapter 3), so that anyone from the church could simply drop the envelopes in any mailbox, had to be modified. A

change in postal regulations took effect during the data-gathering timeframe that required senders of all envelopes of that weight to present them in person to a clerk at a Postal Service Counter. The new policy was deemed an unreasonable expectation of the churches and would likely have lowered return rates. Therefore, services of a trustworthy courier were arranged instead to ferry the survey packages between the researcher and the participating churches.

Follow-Up Contact

By using a courier to deliver and pick up the packages to and from the designees, the need to verify receipt of the surveys was eliminated and a closer rapport was established. E-mails and telephone calls maintained contact with participating designees to coordinate reactions to unforeseen circumstances throughout the survey administration period. After delivery of the surveys, contact was lost with three church leaders who stopped responding to e-mails or returning phone calls. Ultimately, 11 (19%) of the randomly-selected churches returned surveys.

Final Contact

After the completed surveys were received from each participating church, a message of appreciation was sent to the pastor, senior minister, or designee thanking them and the church for their participation in the research study.

Presentation and Analysis of the Data

This section profiled the quantitative responses that were analyzed using JMP software. If at least 50% of an instrument's items were answered, it was considered usable (n = 597). Of the eight surveys rejected, five ranged from 25% - 45% complete; the other three were 13% or less. All other returned surveys were unmarked. Thus, response rate for the 1000 paper copy instruments distributed for the study was 59.7%. The participant-to-item ratio was 14.9:1 (Costello & Osborne, 2005). General- and Particular Demographic data were analyzed first to

get an understanding of who participated in the study, followed by analyses of their responses to the perspective transformation, personal reflection, and learning experience variable items.

General Demographic Items

Frequencies and percentages of the general demographic items (gender, age category, marital status, and education level) of participants are detailed in Table 5, the number and age range of children of parents in the study are in Table 6, major life changes are detailed in Table 7. The differences between the demographics of the sample and the summed demographics reported by the U.S. Census Bureau (U.S. Department of Commerce, 2010, 2006-2010) for the two counties comprising the metropolitan area under study were significant in each category at the .05 level.

Gender. As shown in Table 5, the proportion of males in the sample was significantly different from the census data, $\chi^2(1, N = 585) = 4.24, p = .04$.

Age category. The disproportionally large ratio of late-adult category was significantly different than the population of the geographic area of the study, $\chi^2(2, N = 534) = 106.18, p < .001$. The Census data (Table 5) shows that each successive age category is smaller in number than the preceding one. The sample inverted the demographic ratios found in the census data: Although the oldest age category was the smallest in the census, the Late adult age category in the sample was 10 percentage points larger than the Early age category and 17 percentage points higher than the census data (U.S. Department of Commerce, 2010). In contrast to both the Late and Early age categories, the proportions of the Middle adult age category came within one percentage point of matching the proportions in the Census data.

Table 5

Comparisons of Respondent Demographics to the U.S. Census Bureau Regional Data

Characteristic	Sample		Census	
	n	%	*n*	%
Gender[a] (*N* = 585, 12 missing)				
Female	323	55	158, 515	51
Male	262	45	152,557	49
Adult Age Category[a] (*N* = 534, 63 missing)				
Early (18 - 39)	152	28	142,886	46
Middle (40 - 59)	180	34	102,495	33
Late (60 - up)	202	38	65,691	21
Marital Status[bc] (*N* = 581, 16 missing)				
Single	50	9	84,449	27
Married	466	80	176,507	56
Divorced or Separated	33	6	38,980	12
Widowed	32	6	16,375	5
Education Level[bc] (*N* = 583, 14 missing)				
Less Than High School	13	2	42,764	17
High School	158	27	75,563	30
Some College	121	21	53,003	21
Associates Degree	41	7	13,724	5
Bachelor's Degree	158	27	44,912	18
Graduate/Professional Degree	92	16	22,101	9

Note. Census data from 2010 Census.
[a]Census data from 2010 Census. [b]Rounding errors cause sample percentages to not sum to 100. [c]Census data from 2006-2010 American Community Survey 5-Year Estimates.

Marital status. Another significant departure from the demographics of the geographical area of the study was the overwhelming ratio of married respondents in the sample, $\chi^2(3, N = 581) = 152.25$, $p < .001$. The low number of single respondents might be closely

Table 6

Count, Boxplot Values, and Age Range of the Children of Parents

Child	*n*	*M*	*SD*	Min	Q 1	Mdn	Q 3	Max
Count	424	2.5	1.2	1	2	2	3	10
Oldest[a]	423	28.0	15.9	0.04	14	29	40	69
Youngest[b]	422	22.3	15.3	0.04	8	22	35	61

Note. Min = minimum value; Q 1, Q 3 = Quartile 1, 3, respectively; Max = maximum value. If a parent only had one child, the youngest was also coded as the oldest.
[a]Missing = 174. [b]Missing = 175.

related to low number of young adults mentioned above. Of the 45 single respondents who gave their age, 34 (76%) were under age 30. Only those whose marital status was widowed reflected the demographics of the geographical area (U.S. Department of Commerce, 2006-2010).

Education level. The education level of respondents in the sample (Table 5) also differed significantly from the population in the geographic area of the study (U.S. Department of Commerce, 2006-2010), $\chi^2(5, N = 583) = 137.89$, $p < .001$. Several interesting differences among the categories were noticed. The frequency of "Less-than-high-school-completion" responses in the sample was 15 percentage points lower than the Census estimate, but this difference did not carry over into a higher frequency in the "High school or equivalent education completion" category; the Census estimate was higher than the sample. Similarly, the Census estimate for the "Associate Degrees" category was lower than the sample's frequency. However, the percentages in the sample for completion of a bachelor's, graduate, or professional degrees were higher than the Census estimates.

Parental status. Self-reported parental status was 81% yes ($n = 455$, 36 missing). Table 6 has the count and age range of the 1,063 children reported by survey participants who provided that information (173 did not).

Major life changes. Unlike the Likert-type response items that preceded it, Item 41 was a nominative check-off response item list of major life-changes. Table 7 lists the frequency in descending order for the types of changes reported in the sample.

Particular Demographic Items

The demographic items particular to the study include the worship perspective of the (a) churches hosting the study and (b) denomination sponsoring the faith-based education on which participants based their responses, self-description and years as a "born-again" or evangelical Christian, years of exposure to faith-based adult education, and the timing, food provisions, and size of faith-based adult education meetings. Worship-service perspective and self-description are characterized in Table 8. Timing and food provision of meetings are in Table 9.

Worship perspective. The actual proportion of responses from host churches in two of

Table 7

Particular Demographic: Major Changes in Life

Type	*n*	%
Move	344	63
Death of a loved one	324	59
Change of job	301	55
Marriage	282	51
Birth of a child	273	50
Serious accident or illness	208	38
Loss of job	105	19
Divorce or separation	78	14
Retirement	19	3
Other	42	8

Note. $N = 549$, missing = 48. Types are not mutually exclusive, therefore percentages do not sum to 100.

Table 8

Characteristics of Worship Perspective and Self-Described Christian Type

Particular demographic variable	*n*	%
Worship perspective of participant church (*N* = 597)		
Mainstream (8 churches)	257	43
Restorational (1 church)	234	39
Charismatic (2 churches)	106	18
Worship perspective of sponsoring denomination (*N* = 578, 19 missing)		
Mainstream	232	40
Restorational	220	38
Charismatic	94	16
Other	32	6
Self-description as a "born again" or evangelical Christian (*N* = 572, 25 missing)		
No	10	2
Not sure	25	4
Christian, but not "'born again' or evangelical"	67	12
Yes	470	82

Note.

the three worship service perspectives were significantly different than the proportion desired in Table 2: $\chi^2(2, N = 597) = 80.47$, $p < .001$. Only the desired proportion for the Charismatic stratum was obtained; the Mainstream stratum was underrepresented.

At least 83participants (14% of the sample) indicated they completed the survey with faith-based education in mind that was sponsored by a denomination other than the one at which they completed the survey.

Self-description and duration. As shown in Table 8, more than four out of five participants responded that they would describe themselves as "born-again" or evangelical

Christians. When asked how long they had been so, the average response was three decades: *N* = 443, *M* = 33.0, *SD* = 17.4, *SEM* = 0.8, Skewness = 0.09, Kurtosis = -0.80, minimum = 0.3, Quartile 1 = 19, *Mdn* = 33, Quartile 3 = 46, maximum = 78, *N* missing = 154.

Exposure to adult faith-based education. A participant responded "zero [years]" to this item; 11 others who had less than one year of exposure indicated the number of weeks or months: *N* = 566, *M* = 23.5, *SD* = 17.2, *SEM* = 0.72, Skewness = 0.44, Kurtosis = -0.81, Quartile 1 = 8, *Mdn* = 20, Quartile 3 = 38, maximum = 70, *N* missing = 31.

Timing and food provisions. Over half of all the faith-based adult education events that participants had in mind when responding to the items in the study met on Sunday mornings (Table 9). Over half of the Sunday morning meetings had some type of food available. Sundays were when nearly three out of every four meetings identified in the study took place. A distant second-most popular meeting time was Wednesday evening. Slightly less than one-eighth of all referenced meetings met at that time, but over half of them also had provision of some type of food. A close third was the Sunday evening timeframe; although only one-tenth of the total sample, nearly two-thirds of these meetings reportedly offered a meal to those who came. Saturday had the lowest frequency of meetings in the study, but all the meetings were mornings only and all of them had provision of food. No Saturday evening meetings were reported.

Size. The distribution of responses to the question "how many other adults usually attended?" ranged from 1 - 4000 (*N* = 412, *M* = 59.5, *SD* = 232.7, *SEM* = 11.5, Quartile 1 = 10, *Mdn* = 20, Quartile 3 = 45, Skewness = 13.5, Kurtosis = 212.4, Missing = 185). The boxplot revealed two extreme outliers: The most extreme data point at 4000 represented an "other" meeting (Table 9, *Note.*); the next highest, at 2000, represented a one-week conference; both were recoded as missing and the analysis repeated.

Table 9

Faith-Based Adult Education Meeting Day, Start-Time, Food Provision, and Size

		Morning						Evening						
				Food						Food				
Day	*N*	*n*	%	No	Snack	Meal	Size	*n*	%	No	Snack	Meal	Size	%
Sunday[a]	319	245	86.0	106	128	3	30	43	36.1	5	10	28	15	71.5
Monday[b]	12	5	1.8	3	1		8	6	5.0	5	1		10	2.7
Tuesday	11	7	2.5	4	1	1	18	4	3.4	3	1		108[c]	2.5
Wednesday[d]	65	11	3.9	6	5		20	50	42.0	19	22	9	15	14.6
Thursday	14	7	2.5	3	2	1	12	7	5.9	3	3	1	10	3.1
Friday	6	2	0.7	1	1		7	4	3.4		2	2	10	1.3
Saturday	3	3	1.1		1	2	10							0.7
Other[e]	16	5	1.8	3		1	40	5	4.2	2	2		10	3.6
Total	446[f]	285[g]	100.3[h]	126	139	8		119[c]	100.0	37	41	40		100.0

Note. Size = Median attendance values. Morning meeting start-times = 6 a.m. - Noon. No afternoon meeting start-times were reported. Evening meeting start-times = 5 p.m. - 10 p.m. *Other* meetings were nonrecurring (retreats, conferences, & mission trips) or occurred on multiple or various days.

[a]Missing start time = 31. [b]Missing start time = 1. [c]Actual value = 107.5. [d]Missing start time = 4. [e]Missing start time = 6. [f]Missing meeting day = 151. [g]Missing meeting day = 7. [h]Does not sum to 100 due to rounding errors.

The second distribution run lowered the range from 1 - 600 (N = 410, M = 45.1, SD = 83.8, SEM = 4.1, Quartile 1 = 10, Mdn = 20, Quartile 3 = 45, Skewness = 4.3, Kurtosis = 20.2, Missing = 187). The most-outlying value of 600 had two data points and the second-most outlying value of 500 had four data points; all six represented Sunday morning meetings. Because the mean of these data also represented the third quartile, it was decided to report median values to better portray the meeting size characteristic.

Perspective Transformation

Table 10 has the frequencies, means, and standard deviations of the 18 items grouped into three scales designed to measure self-perceived perspective transformation.

Perceptions of change in self and others. This scale was perhaps the best-performing of the three, overall. On average, the means in this scale were higher and the standard deviations were lower than those of the other two scales of perspective transformation items (4.22 and 0.82, respectively). Out of all 18 perspective transformation items, the two highest item means and the two lowest item standard deviations were Items 2 and 1, respectively. Item 1 was one of only two perspective transformation items with no missing responses; overall, this scale had only 0.4% responses missing. In contrast to the first two items, Item 3 in this scale had the highest single standard deviation and the third-lowest mean of any other perspective transformation item. Cronbach's $\alpha = 0.63$ for the scale; excluding Item 3 increased α to 0.76.

Considering and making changes in thought or action. The second scale of perspective transformation items could be the poorest performer. Its average of standard deviations (0.89) and its percentage of missing responses (0.6%) were higher than those of the other two scales. Item 9 had the highest frequency (10) of missing responses (twice that of the second-highest item), the lowest mean, and the second-highest standard deviation; at 31%, the

Table 10

Scales and Descriptive Statistics of Perspective Transformation Items

Scale	Item	*n*	*M*	*SD*	Skew	Kurt
Perceptions of change in self, others	1. Changed my life in some way	597	4.39	0.74	-1.04	0.63
	2. Others have experienced changes	592	4.42	0.68	-1.03	1.17
	3. Changed my attitudes, opinions	595	3.86	1.05	-0.73	0.04
Considering and making changes in thought and action (α = 0.89)	4. Considered thinking differently	595	4.17	0.83	-1.20	2.12
	5. Thought about past behavior	595	4.31	0.84	-1.32	1.95
	6. Thought about acting differently	596	4.17	0.88	-1.06	1.13
	7. I now think differently	594	4.06	0.89	-0.83	0.57
	8. I now act differently	595	4.00	0.87	-0.84	0.88
	9. I now learn differently	587	3.69	1.00	-0.40	-0.33
Awareness of the benefits of change, and prediction of future behaviors (α = 0.92)	10. I now better understand myself	596	4.02	0.86	-0.70	0.37
	11. I now better understand others	596	4.06	0.82	-0.73	0.69
	12. I now am a better family member	595	4.28	0.79	-1.02	1.04
	13. Changed how I make decisions	597	4.26	0.79	-0.88	0.45
	14. I can make bigger future impact	596	4.17	0.79	-0.40	0.19
	15. I will contribute more to society	595	4.06	0.81	-0.52	-0.15
	16. I have more options than before	593	3.74	0.93	-0.32	-0.28
	17. I have more potential	594	3.92	0.91	-0.56	-0.01
	18. My goals have changed	594	3.83	0.95	-0.49	-0.18

Note. Skew = skewness. Kurt = kurtosis. All items' responses were full range (Likert: 1 Strongly Disagree - 5 Strongly Agree).

neutral response was nearly double the average of neutral responses (15.6%) for the other items in the category. Cronbach's α for the scale was 0.89; excluding Item 9 had no noticeable effect.

Awareness of the benefits of change, and predictions of future behaviors. This scale could be considered the most efficient at returning contrasting data. Only 0.3% of its responses were missing; Item 13, the other of the two items to which all participants responded, was in this

category. The average of the means in this scale of dependent variable items was the lowest (4.04) of the three scales, influenced by two of the lowest three perspective transformation item means. The responses to Item 16, the second-lowest perspective transformation item mean, were 33% neutral: the highest ratio out of all 18 items. Responses to Item 18, the third-lowest mean, were 29% neutral. These negated the benefit of Item 12, which had the third-highest mean of the perspective transformation items and only a 12% neutral response frequency. Cronbach's α for the scale was 0.92; excluding any of the items discussed above had no noticeable effect.

Reflection and Learning Experiences

Table 11 details the descriptive statistics for the 22 items comprising the Personal Reflection and Learning Experience variables; the latter being subdivided into Influential Individual, Learning Assignments and Activities, and Outside Influence scales.

Personal reflection. The two-item scale was unique for two reasons. First, it was the only scale with no missing values. Second, because it was only a four-point scale, the averages of the mean and the standard deviation for each item cannot be directly compared to the other scales in the instrument. Item 19 had only five "almost never" responses, compared to the 19 for Item 20. The majority response to both items was "often," which helps explain the 2.97 average for the two means, 74% of the maximum possible value. Cronbach's α for the scale was 0.78.

Influential individuals. Like the previous scale's results, the results from this scale could also be characterized as top-tier. The five items in this scale were missing only 0.6% of their responses, the second-highest ratio of the four independent variable scales. The average of the item means was 3.93, 79% of the maximum possible value, the highest of all the independent variable scales. Item 23 had the highest individual mean among the 20 Learning Experience

Table 11

Scales and Descriptive Statistics of Personal Reflection and Learning Experience Items

Scale	Item	*n*	*M*	*SD*	Skew	Kurt
Personal reflection (α = 0.78)	19. Reflect on previous decisions	597	3.01	0.72	-0.15	-0.66
	20. Personal impact of learning	597	2.92	0.76	-0.29	-0.33
Influential individuals (α = 0.79)	21. Peers in learning activity	595	3.93	0.85	-0.56	0.21
	22. Teachers/leaders of activity	595	4.19	0.76	-0.77	-0.70
	23. Pastors/ministers in church	597	4.24	0.82	-1.00	0.81
	24. Elders of church	591	3.66	0.98	-0.55	0.04
	25. Others not mentioned above	590	3.61	0.89	-0.35	0.01
Learning assignments and activities (α = 0.875)	26. Class/group projects/activities	589	3.79	0.91	-0.58	0.16
	27. Writing about your concerns	588	2.54	1.10	0.24	-0.63
	28. Your personal journal	583	2.64	1.36	0.22	-1.17
	29. Nontraditional structure/location	574	2.95	1.18	-0.17	-0.80
	30. Deep, concentrated thought	587	3.70	0.98	-0.50	-0.14
	31. Discussing your concerns	588	3.74	0.98	-0.74	0.36
	32. Writing assignments/essays	582	2.42	1.23	0.42	-0.84
	33. Assigned readings	589	3.21	1.15	-0.33	-0.64
	34. Personal reflection	591	3.90	0.91	-0.68	0.44
	35. Prayer, fasting	588	3.84	1.04	-0.74	0.11
Outside influences (α = 0.75)	36. Mission trips/practical ministry	587	3.51	1.28	-0.58	-0.66
	37. Guest speakers	591	3.38	1.07	-0.38	-0.45
	38. TV/radio/Internet programs	588	2.84	1.27	0.02	-1.04
	39. Employment [a]	577	2.75	1.26	0.10	-1.02
	40. Non-church sponsored activities	578	2.86	1.15	-0.09	-0.73

Note. Skew = skewness. Kurt = kurtosis. All items' responses were full range (Items 19 - 20: 1 Almost Never - 4 Almost Always; all others Likert: 1 Strongly Disagree - 5 Strongly Agree). Cronbach's α for each item = 0.94.

items measured on a five-point scale as well as a 100% response rate. Item 22 had the second-

highest individual mean and the lowest standard deviation of all the five-point independent variable scale items. Cronbach's α for the scale was 0.79; excluding Item 22 reduced α to 0.74.

Learning assignments and activities. Of the 10 items comprising this scale, the poorest performance of all 22 independent variable items in three different statistical areas came from three items in this scale. Item 28 had the highest standard deviation: the most prevalent response was "no influence" selected by 30% of participants, followed by the neutral response selected by 25%; only 11% selected the "strong influence" response. Item 29 had the highest number of missing responses; 34% supplied the neutral response; the remaining respondents were almost evenly divided between little- to no influence (32% total) and moderate- to strong influence (34% total). Item 32 had the lowest individual mean: no- or little influence dominated (54% total) followed by the neutral response (26%); only 20% (total) claimed any amount of influence. The result for this scale was the second-poorest average for item means (3.273, or only 66% of its maximum possible value) and for standard deviations (1.08). Cronbach's α for the scale rounded to 0.87; the biggest impact of excluding any item was to lower α to 0.85.

Outside influences. Just as the previous scale was characterized by poorly-performing individual items, this scale could be characterized by its poor performance overall. Only Item 36 stood out from the other independent variable items with its second-highest standard deviation (1.28). Taken collectively as a scale, however, the five items represented the largest ratio of missing data (2.1%), the lowest average of means (3.07, or only 61% of its maximum value), and the highest average of standard deviations (1.21). Cronbach's α for the scale was 0.75; excluding Item 37 lowered α to 0.69, but excluding Item 36 had no noticeable effect.

Correlation of Variables

The next data step taken in analyzing the data was a study of their correlations. First, scatterplots were reviewed to check for curvilinear relationships; none were recognized. The great majority of variables in the study were observed to be significant ($p < .001$), but few were large or strong, that is, $\geq |.75|$ (Johnson & Christensen, 2008).

Some correlations were noteworthy or interesting. Items 7 and 8 ("I now think-, act differently [respectively] because of my experiences in adult faith-based education") were strongly correlated ($r = .79$, $n = 592$, $p < .001$). Item 45, years as a "born-again" Christian, strongly correlated with Item 42, years of faith-based education ($r = .76$, $n = 429$, $p < .001$) and Item 44, age ($r = .76$, $n = 407$, $p < .001$). Age was most strongly correlated in the sample with Item 47, age of oldest child ($r = .94$, $n = 388$, $p < .001$), but correlations with most other items regarding education level or years accumulated were insignificant, very weak, or negative. The strongest negative correlation was between Item 48, highest level of education completed, and Item 47, age of oldest child ($r = -.23$, $n = 421$, $p < .001$). Other significant negative correlations for education level were with Item 17, "I have more potential than I thought," ($r = -.18$, $n = 580$, $p < .001$); Item 16, "I have more options than I previously considered," ($r = -.17$, $n = 579$, $p < .001$); and Item 9, "I now learn differently," ($r = -.15$, $n = 573$, $p < .0002$). The correlation of Items 9 and 44, age, was also negative and significant ($r = -.16$, $n = 529$, $p < .0002$). In contrast to the negativity of most correlations for education level, age was positively correlated with Item 41, number of major life changes, ($r = .22$, $n = 543$, $p < .001$).

The above descriptive statistics have provided indicators of data set reliability. The next step of this analysis of the data is to assess its structure for an indication of its validity.

Exploratory Factor Analysis

Given that this was the first known adaptation of the original Learning Survey (Madsen & Cook, 2010) to an evangelical faith-based adult nonformal education setting, exploratory factor analysis was undertaken to investigate its structural validity.

Validity. The structure of the data set was examined by exploratory factor analysis of two variables of interest: the three scales for perspective transformation and the three scales for learning experiences. Participants responded to these two sets of items using a separate five-point Likert scale for each variable (Strongly Agree - Strongly Disagree for Perspective Transformation, and No Influence - Strong Influence for Learning Experiences). Reflection was excluded from this factor analysis because it consisted of only two items measured on a four-point scale (Almost Never, Occasionally, Often, Almost Always).

Factor Extraction. The next step was a separate maximum likelihood method common factor analysis extraction method with oblimin (weight = 1) rotation of prior communality on the Pearson correlations of the responses to each set of scale items. The non-orthogonal maximum likelihood method with Oblimin rotation was chosen as more appropriate than the orthogonal Principle Components analysis method with Varimax rotation used in the original deployment of this instrument (Madsen & Cook, 2010) for several reasons. First, the nature of the study was exploratory; no hypotheses were being tested, no inferences to a general population were being attempted. Second, the relationship of the items was known a priori (Costello & Osborne, 2005). Third, the goal was to uncover the structure of any latent factors that may have caused the items to covary; the structure was not necessarily orthogonal (Costello & Osborne, 2005; Statsoft, 2013). Fourth, the skewness and kurtosis of the data was not greater than the absolute values of three and ten, respectively (W.-J. Lo, personal communication, March 8, 2013).

The following five criteria were used to guide factor extraction:

- Data point location on the scree plot curve in relation to the other data points (Costello & Osborne, 2005; Statsoft, 2013
- Minimum loading value at least .40 (Costello & Osborne, 2005)
- Separation of at least .200 in communality above that of the next-nearest value (W.-J. Lo, personal communication, March 8, 2013)
- At least three items per factor (Costello & Osborne, 2005)

Perspective transformation. The 18 Perspective Transformation items were subjected to a maximum likelihood method common factor analysis extraction with Oblimin rotation (weight = 1). Several indicators suggested three as the appropriate number of factors. The common, but "*among the least accurate*" (Costello & Osborne, 2005, p. 3) criterion of having Eigenvalues greater than 1.0 would have selected three factors. The scree test of choosing the "natural bend or break point in the data where the curve flattens out" (Costello & Osborne, 2005, p. 3) was unclear because the curve appeared to flatten out twice: The Eigenvalue of Component 2 was only 0.24 above Component 3, whereas Component 3 was 0.39 above the Eigenvalue of Component 4, which had an Eigenvalue only 0.06 above Component 5. In the original LS (Madsen & Cook, 2010), all items except Item 9, which was excluded, loaded on the appropriate three scales (Table 10). Therefore, a three-factor solution was specified, bracketed by the "above and below" (Costello & Osborne, 2005, p. 3) number of factors (four and two, respectively). The resultant models were analyzed until all loading criteria were met, compared (Costello & Osborne, 2005) to select the best fit to the data of the sample, and the model selected.

Two-factor model. Both factors had more than three items that loaded at values above .40 in the initial two-factor extraction, but Items 1 and 9 had less than a .200 separation from the

loading value of the other factor and were excluded. The second extraction resulted in all items meeting all criteria. The scree plot of the final run of the 2-factor extraction showed Component 2 more visually distinct from Component 3 by a 0.36 difference in Eigenvalue; the Eigenvalue of Component 3 was now 0.30 above the point where the curve becomes flat at Component 4, which was only .06 in value above Component 5. Thus, the two-factor model had the best scree test results, but did not fit the theoretical structure. Table 12 lists the items and loading values for the two perspective transformation factors in the model.

Three-factor model. In the initial extraction, three or more items loaded on each factor. However, Items 5 and 9 did not satisfy the separation criterion. These items were excluded and the analysis rerun. All three factors and remaining items in the second iteration met all loading and separation criteria, but each factor differed in structure from the original LS; had Item 5 been retained, the Considering and Making Change scale would have remained intact. In the final scree plot, Component 2 had an Eigenvalue 0.22 above Component 3, which had an Eigenvalue 0.34 above where the curve flattened at Component 4. Table 13 lists the items and loading values in the three-factor model.

Four-factor model. Three of the four factors in the initial extraction had three or more items that met the minimum loading and separation criteria; Factor 4, however, only had Items 1 and 2 that met all guidelines. Item 15 did not meet the minimum loading criterion and Items 5and 9 did not meet the minimum separation criteria; all three were excluded from the next iteration. In the second extraction, all items met all loading and separation criteria. In Factor 4, the communality for both viable items increased: Item 2 from .71 to .77, but for Item 1 not above rounding down to the same value. Although it had four factors compared to three in the original LS, this model more closely aligned to the theoretical structure than the others because two of

Table 12

Loadings (and Cronbach's Alpha) for the Perspective Transformation Two-Factor Model

Item	Awareness of benefit (α = .92)	Considering differently (α = .88)
2. Others have experienced changes[a]	**.41**	.16
3. Changed my attitudes, opinions[a]	-.01	**.59**
4. Considered thinking differently	-.08	**.81**
5. Thought about past behavior	.22	**.51**
6. Thought about acting differently	.08	**.71**
7. I now think differently	.01	**.89**
8. I now act differently	.15	**.74**
10. I now better understand myself	**.63**	.17
11. I now better understand others	**.65**	.10
12. I am a better family member	**.68**	.10
13. Changed how I make decisions	**.78**	.05
14. I can make bigger future impact	**.83**	-.03
15. I will contribute more to society	**.87**	-.14
16. I have more options than before	**.63**	.06
17. I have more potential	**.79**	-.05
18. My goals have changed	**.64**	.06

Note. Factor loadings > .40 are in boldface.
[a]This item was expected to load on the Perception of Change factor, which did not emerge.

the factors came from splitting the nine-item "Awareness of [Current] Benefits and Prediction of Future Behavior" scale into its component parts. The final scree plot for this model showed the Eigenvalue for Component 2 only 0.15 higher than that of Component 3, which had an Eigenvalue 0.33 above Component 4, which had an Eigenvalue 0.06 above Component 5.

Table 13

Loadings (and Cronbach's Alpha) for the Perspective Transformation Three-Factor Model

Item	Perception of benefit (α = .90)	Considering change (α = .88)	Future benefit (α = .84)
1. Changed my life in some way[a]	**.62**	.20	-.13
2. Others have experienced changes[a]	**.62**	.06	-12
3. Changed my attitudes, opinions[a]	-.03	**.57**	.06
4. Considered thinking differently	.09	**.72**	-.10
6. Thought about acting differently	.06	**.56**	.08
7. I now think differently	-.06	**.91**	.09
8. I now act differently	.12	**.73**	.07
10. I now better understand myself	**.52**	.15	.18
11. I now better understand others	**.69**	.06	.12
12. I am a better family member	**.82**	.01	-.02
13. Changed how I make decisions	**.79**	-.01	.09
14. I can make bigger future impact	**.69**	-.03	.22
15. I will contribute more to society	**.61**	-.11	.31
16. I have more options than before[b]	.03	.19	**.64**
17. I have more potential[b]	.16	.06	**.71**
18. My goals have changed[b]	.10	.17	**.60**

Note. Factor loadings > .40 are in boldface.
[a]This item was expected to load on the Perception of Change factor, which did not emerge. [b]This item was expected to load on the Awareness of Benefits of Change and Prediction of Future Behavior factor, which did not remain intact.

Table 14 lists the factors and loading values in the perspective transformation four-factor model.

Perspective Transformation model selection. Because the four-factor model aligned more closely with the theoretical framework of the study, it was selected for the Perspective Transformation variable.

Table 14

Loadings (and Cronbach's Alpha) for the Perspective Transformation Four-Factor Model

Item	Considering change (α = .87)	Understanding benefits (α = .89)	Future benefits (α = .84)	Perception of change (α = .76)
1. Changed my life in some way	.16	.18	-.02	**.57**
2. Others have experienced changes	-.02	.03	.04	**.77**
3. Changed my attitudes, opinions[a]	**.54**	-.09	.09	.09
4. Considered thinking differently	**.72**	-.01	-.08	.14
6. Thought about acting differently	**.66**	.09	.06	-.01
7. I now think differently	**.88**	.03	.06	-.07
8. I now act differently	**.73**	.26	.01	-.11
10. I now better understand myself	.14	**.47**	.19	.05
11. I now better understand others	.07	**.56**	.12	.05
12. I am a better family member	.05	**.79**	-.08	.06
13. Changed how I make decisions	-.01	**.83**	.02	.03
14. I can make bigger future impact	-.02	**.62**	.20	.06
16. I have more options than before[b]	.09	.00	**.71**	.06
17. I have more potential[b]	-.07	.05	**.85**	.05
18. My goals have changed[b]	.07	.05	**.68**	.02

Note. Factor loadings > .40 are in boldface.
[a]This item was expected to load on the Perception of Change factor. [b]This item was expected to load on the Awareness of Benefits of Change and Prediction of Future Behavior factor, which did not remain intact.

Learning experiences. As with the Perspective Transformation items, the 20 items comprising the Learning Experiences variable were also subjected to a maximum likelihood method common factor analysis using the Oblimin (weight = 1) rotation method. It was known a priori that the items were organized into three scales; each of the items loaded onto the correct factor in the original employment of the instrument using a principal component factor analysis

with Varimax rotation (Madsen & Cook, 2010). The scree test portrayed the components forming an ambiguous transition from the vertical "mountain" slope to the horizontal slope of the "scree" (Statsoft, 2013). The Eigenvalue of Component 2 was 0.60 above that of Component 3, which was only 0.11 above Component 4, which was 0.16 above Component 5. Again, the anticipated three-factor model was bracketed by the plus-and-minus-one (Costello & Osborne, 2005, p. 3) number of factors, that is, four and two, respectively, for comparison.

Four-factor model. On the initial four-factor extraction, all criteria were met except that Items 29, 31, 33, 36, and 37 failed to reach the .40 communality threshold and were excluded. On the second extraction, Item 38 fell below the minimum loading threshold and was excluded. In the third run of the analysis, the communality of Item 22 was above 1.00, an impossible situation and an indication of extreme trouble referred to in the literature as a Heywood case (Costello & Osborne, 2005). Items 23, 26, 39, and 40 failed to meet the minimum loading criterion. Those five items were removed and the analysis rerun. On the fourth iteration, no items loaded on Factor 4. Thus, the four-factor upper bracket model was not viable.

Two-factor model. On the initial run of the two-factor model for the lower side of the bracket, the loadings of Items 31, 35, and 36 were below the minimum criterion; these were excluded and the analysis run again. On the second iteration, the communalities for Items 37 and 34 were below the minimums for loading and separation, respectively; both were excluded. On the third run, the 15 remaining items satisfied all loading criteria. On the final scree test, Component 2 was 0.70 higher in Eigenvalue than Component 3, which was 0.23 higher than Component 4, which was 0.05 higher than where the curve flattened at Component 5. Table 15 lists the items and communalities in the two-factor model.

Table 15

Loadings (and Cronbach's Alpha) for the Learning Experiences Two-Factor Model

Item	Educational activities (α = .86)	Influential individual (α = .82)
21. Peers in the activity	-.07	**.72**
22. Teachers/leaders in the activity	-.90	**.79**
23. Pastors/ministers in the church	.05	**.62**
24. Elders of the church	.13	**.54**
25. Others in the church	.13	**.54**
26. Class/group projects, activities[a]	.22	**.52**
27. Writing to others	**.76**	.02
28. Personal journal	**.81**	-.17
29. Nontraditional structure/location	**.52**	.13
30. Deep, concentrated thought	**.49**	.19
32. Writing assignments	**.86**	-.19
33. Assigned readings	**.56**	.14
38. TV, radio, Internet programs[b]	**.49**	.17
39. Employment[b]	**.45**	.14
40. Non-church activities[b]	**.44**	.10

Note. Factor loadings > .40 are in boldface.
[a]This item was expected to load on the Learning Assignment and Activity factor, which did not emerge. [b]This item was expected to load on the Outside Influence factor, which did not emerge.

Three-factor model. On the initial three-factor extraction, the loadings for Items 29 and 33 were below the .40 threshold; the loadings for Item 38 were below the separation minimum. Item 40 did not reach the loading threshold in the second extraction. Loading values for Item 39 were below the minimum in the third run. All items in the fourth run met all loading and separation criteria. Final Eigenvalues for Component 2 were 0.52 above Component 3, which

were 0.17 above Component 4, which were 0.24 above Component 5 where the curve flattened. Table 16 lists the items and communalities in the three-factor model.

Learning Experience factor model selection. Of the two viable options for the Learning Experiences variable, the three-factor model aligned better with the a priori scale constructs than the two-factor model.

Table 16

Loadings (and Cronbach's Alpha) for the Learning Experiences Three-Factor Model

Item	Influential individual (α = .82)	Learning activity (α = .79)	Writing activity (α = .81)
21. Peers in the activity	**.73**	-.02	-.07
22. Teachers/leaders in the activity	**.83**	-.08	-.05
23. Pastors/ministers in the church	**.62**	.02	.03
24. Elders of the church	**.53**	.07	.09
25. Others in the church	**.52**	.08	.06
26. Class/group projects, activities[a]	**.48**	.20	.09
27. Writing to others[a]	.17	-.04	**.75**
28. Personal journal[a]	-.06	.07	**.72**
30. Deep, concentrated thought[a]	.02	**.60**	.15
31. Verbally discussing concerns[a]	.18	**.42**	.10
32. Writing assignments[a]	-.05	.01	**.81**
34. Personal reflection[a]	.01	**.76**	-.03
35. Prayer, fasting[a]	.02	**.76**	-.13
36. Mission/ministry involvement[b]	-.05	**.52**	.05
37. Guest speakers[b]	.08	**.45**	.07

Note. Factor loadings > .40 are in boldface.
[a]This item was expected to load on the Learning Assignment and Activity factor, which did not emerge. [b]This item was expected to load on the Outside Influences factor, which did not emerge.

Research Question 1

To what extent has self-reported perspective transformation occurred in participants involved in evangelical faith-based adult nonformal education programs?

Data analysis. The first item on the instrument was designed to provide one of the most direct answers to Research Question 1 (King, 2009; Madsen & Cook, 2010). Item 2 was also designed to measure perceptions of changes in others' lives influenced by faith-based education. Both items can be traced back to King's (2009) original Learning Activities Survey. Both items loaded together as the Perception of Change factor of the Perspective Transformation variable. Only two "disagree" responses to the statements that faith-based education had changed the participant's or others' lives, respectively were recorded. These negative responses were scrutinized for two reasons. First, qualitative evidence from other respondents suggested that at least nine participants initially responded "disagree" or "strongly disagree," and then later changed their responses to the affirmative. One respondent wrote "marked wrong at first" in the margin.

Secondly, responses in two cases to the qualitative prompt on the last of the three-page instrument, Item 43, were inconsistent with the participants' quantitative responses on Page 1. Specifically, one respondent wrote "[Faith-based education has changed my life because] it makes me stop and think 'is this appropriate?', 'am I doing the right thing?" Another wrote "[Faith-based education has changed my life because] anything I do is based on 'how Jesus would treat others or act'". Therefore, the early contradictory quantitative responses for those two participants were reverse coded to match the later free-response. In two other cases, however, qualitative data was insufficient to change participants' suspected misunderstandings.

The data for Research Question 1 were next analyzed by studying the descriptives, boxplot values, and distribution shapes of the four Perspective Transformation factors (Table 17). The shape of the distribution of the Perception of Change factor had a Skewness = -1.02 and Kurtosis = 1.24. The outlying responses of one 1 and seven 2s to Item 1 and one 1 and five 2s to Item 2 caused the negatively skewed the distribution. The response of 5 (strongly agree) alone accounted for 42% of the respondents, adding the Agree responses brought the total frequency of responses in some level of agreement to 511 (86%).

The shape of the Considering Change factor (Items 3, 4, and 6 - 8) distribution was Skewness = -0.87 and Kurtosis = 1.05. The Mode was Agree, *n* = 284 (48%), the second highest frequency was Neutral, *n* = 193 (32%), and the third-highest frequency was Strongly Agree, *n* = 84 (14%). The majority of responses were in a level of agreement (*n* = 368, 62%), compared to 36 (6%) of responses that were in a level of disagreement.

The shape of the Understanding Benefits factor (Items 10 - 14) distribution was Skewness = -0.82, Kurtosis = 1.38. The Mode was Agree, *n* = 288 (48%), the second highest response was again Neutral, *n* = 171 (29%), and the third-highest was Strongly Agree, *n* = 119 (20%). The majority of responses were in a level of agreement (*n* = 407, 68%); 19 (3%)

Table 17

Characteristics of the Perspective Transformation Factors

Factor	*n*	*M*	*SD*	Min	Q 1	Mdn	Q 3	Max
Perception of change	597	4.40	0.64	1	4	4.5	5	5
Considering change	597	4.05	0.74	1	3.6	4.2	4.6	5
Understanding benefits	597	4.16	0.68	1	3.8	4.2	4.8	5
Future benefits	596	3.83	0.81	1	3.3	4	4.3	5

Note. Min = minimum value; Q 1, Q 3 = Quartile 1, 3, respectively; Max = maximum value.

responses were in a level of disagreement.

The shape of the Future Benefits factor (Items 16 - 18) distribution was Skewness = -0.40, Kurtosis = 1.38. The Mode was Neutral, *n* = 244 (41%), the second highest response was Agree, *n* = 213 (36%), and the third-highest was Strongly Agree, *n* = 86 (14%). The majority of responses were in a level of agreement (*n* = 299, 50%); 53 (9%) responses were in a level of disagreement.

Analysis results. Given that a response of 4 or 5 represented "Agree" or "Strongly Agree" respectively, the results of the sample were that 511 of 597 (86%) participants averaged a response of 4.0 or higher on the Perception of Change factor. Also, 368 (62%) participants responded with a level of agreement on the Considering Change factor, 407 (68%) participants responded with a level of agreement on the Understanding Benefits factor, and 299 (50%) participants responded with a level of agreement on the Future Benefits factor.

Research answer. An 86% majority of the sample of participants involved in faith-based adult nonformal education programs self-reported a level of agreement or stronger that perceived perspective transformation had occurred; all other factors were also majority positive.

Research Question 2

To what extent did gender predict or explain self-reported perspective transformation in evangelical faith-based adult nonformal education participants?

Data analysis. To answer this question, first the 18 items designed to measure Perspective Transformation (Table 10) were divided by gender and reexamined. Table 18 provides comparisons of their descriptive statistics. Then a regression analysis was conducted on each of the four Perspective Transformation factors: Perception of Change, Considering Change,

Understanding Benefits, and Future Benefits, to determine if gender predicted or explained the results.

The mean of men's responses to Item 2 ("others have experienced change in their lives"),

Table 18

Comparison of Perspective Transformation Item Descriptive Statistics by Gender

	Men $M = 4.07$, $SD = 0.59$, $\alpha = 0.94$					Women $M = 4.08$, $SD = 0.60$, $\alpha = 0.95$				
Item	*n*	*M*	*SD*	Skew	Kurt	*n*	*M*	*SD*	Skew	Kurt
1.	262	4.36	0.73	-0.85	0.02	323	4.41	0.76	-1.20	1.18
2.	260	4.37	0.69	-0.86	0.39	320	4.46	0.67	-1.22	2.12
3.	260	3.93	1.01	-0.71	-0.12	323	3.70	1.08	-0.74	0.10
4.	262	4.21	0.83	-1.11	1.57	321	4.14	0.85	-1.29	2.57
5.	261	4.34	0.77	-1.26	2.02	322	4.27	0.89	-1.31	1.68
6.	261	4.13	0.88	-1.03	1.18	323	4.20	0.87	-1.10	1.23
7.	261	4.07	0.87	-0.72	0.21	321	4.07	0.90	0.81	-0.94
8.	262	4.02	0.83	-0.71	0.52	321	3.99	0.90	-0.90	0.97
9.	257	3.63	1.02	-0.46	-0.23	318	3.74	0.97	-0.31	-0.51
10.	261	4.05	0.80	-0.44	-0.45	323	4.00	0.90	-0.78	0.55
11.	262	4.04	0.78	-0.51	0.09	322	4.07	0.85	-0.89	1.04
12.	261	4.30	0.77	-0.88	0.18	322	4.27	0.79	-1.12	1.67
13.	262	4.22	0.76	-0.60	-0.40	323	4.29	0.82	-1.10	1.11
14.	262	4.16	0.76	-0.53	-0.34	323	4.18	0.81	-0.83	0.57
15.	261	4.05	0.80	-0.41	-0.54	322	4.09	0.82	-0.64	0.23
16.	260	3.77	0.89	-0.50	0.20	321	3.71	0.96	-0.20	-0.56
17.	262	3.84	0.94	-0.51	-0.08	320	3.98	0.88	-0.60	0.07
18.	262	3.79	1.00	-0.45	-0.48	320	3.86	0.91	-0.53	0.13

Note. α = Cronbach's index of internal consistency. All responses full range (Likert: 1 Strongly Disagree - 5 Strongly Agree) except men's Items 1, 2, 10, 12, 13, 14, and 15 which were 2 - 5.

Item 3 ("I no longer agree with some of my previous attitudes or opinions"), and Item 17 ("I have more potential than I had thought") were the most different from women's responses to those items.

Divided by gender, men's responses to the Perspective Transformation items retained all the relative characteristics of the entire data set described in Presentation and Analysis section, except that the two highest standard deviations were in reverse order. Women's responses to Items 2 and 1 (top two means, lowest two standard deviations), Item 16 (second-lowest mean), and Items 3 and 9 (highest two standard deviations, in original order) also reflected the characteristics of the whole data set. The maximums and minimums of women's responses differed from the entire data set and the men's only in that Item 3was the lowest mean for women; even so, it was 0.07 points higher than Item 9, the lowest mean for men's responses.

Histograms of these responses from men and from women provided additional details; Table 19 contains selected items' data. The mean response of men for Item 2 was lower partly because women's strongly agree response was six percentage points higher; men's responses were slightly higher for agree and neutral. In contrast, the mean response of men to Item 3 was higher in part because the strongly agree response was four percentage points higher and less neutral. Women's agree and strongly agree responses in Item 17 were a total of seven percentage points higher and four percentage points less neutral than men's responses.

Men's and women's responses had nearly identical boxplot values. The only difference in minimum value was noted in Table 18. The only difference for Quartile 1 was that women's response to Item 10 was 3 instead of 4. The women's median response to Item 1 was 5 instead of the men's 4; the women's Item 5 median was 4.5 instead of 5. Women's responses had two

Quartile 3 differences: Item 9 was 5 instead of 4 for the men; Item 15 was 4.5 instead of 5. Maximum values were identical at 5 throughout.

Analysis results. The mean of responses from women on all 18 Perspective

Table 19

Distribution by Gender of Selected Perspective Transformation Item Responses

	Histogram Frequency (%)					Boxplot Value				
Item	1	2	3	4	*5*	Min	Q 1	Mdn	Q 3	Max
				Men						
1	0 (0)	3 (1)	30 (11)	99 (38)	130 (50)	2	4	4	5	5
2	0 (0)	3 (1)	22 (8)	110 (42)	125 (48)	2	4	4	5	5
3	5 (2)	18 (7)	59 (23)	86 (33)	92 (35)	1	3	4	5	5
5	2 (1)	3 (1)	27 (10)	98 (38)	131 (50)	1	4	5	5	5
9	8 (3)	24 (9)	78 (30)	91 (35)	56 (22)	1	3	4	4	5
10	0 (0)	8 (3)	54 (21)	117 (45)	82 (31)	2	4	4	5	5
15	0 (0)	7 (3)	56 (21)	115 (44)	83 (32)	2	4	4	5	5
17	4 (2)	14 (5)	74 (28)	99 (38)	71 (27)	1	3	4	5	5
				Women						
1	1 (0)	4 (1)	35 (11)	103 (32)	180 (56)	1	4	5	5	5
2	1 (0)	2 (1)	20 (6)	124 (39)	173 54)	1	4	5	5	5
3	15 (5)	17 (5)	86 (27)	106 (33)	99 (31)	1	3	4	5	5
5	5 (2)	8 (2)	42 (13)	106 (33)	161 (50)	1	4	4.5	5	5
9	4 (1)	25 (8)	102 (32)	106 (33)	81 (25)	1	3	4	5	5
10	5 (2)	10 (3)	70 (22)	132 (41)	106 (33)	1	3	4	5	5
15	2 (1)	6 (2)	65 (20)	138 (43)	111 (34)	1	4	4	5	5
17	3 (1)	11 (3)	76 (24)	129 (40)	101 (32)	1	3	4	5	5

Note. Min = minimum value; Q 1 = Quartile 1, Q 3 Quartile 3; Max = maximum value. Gender Missing $n = 12$. See Table 18 for n, M, SD, skewness and kurtosis of items.

Transformation items was 0.01 higher in agreement than the mean of all responses from men.

Using gender to predict or explain the observed difference between the mean of men's responses and the mean of women's responses on all four of the Perspective Transformation factors was insignificant. At most, gender explained only 0.3% of the variance in the Perception of Change factor; explanation of variance in the three others factors rounded to .00. The values for the Perception of Changes factor were $F(1, 583) = 1.60$, $p = .21$, $R^2 = .00$, adjusted $R^2 = .00$, $MSE = .64$. The regression estimate was $b = 0.07$, $SE = 0.06$, $t = 1.26$.

Any differences between the means of responses from men or from women were not statistically significant at the .05 level and could be attributed to random variations in the sample.

Research answer. Gender was not statistically significant at the .05 level for predicting or explaining self-reported perspective transformation in evangelical faith-based adult nonformal education participants.

Research Question 3

To what extent did self-reported perspective transformation vary among male and female evangelical faith-based adult nonformal education participants in early (age 18-39), middle (age 40-59), and late (age 60 and up) adulthood?

Data analysis. The answer to this question was pursued by adding Age Category as the second independent variable with Gender and investigating the characteristics of the four Perception of Change factors. The final step was examining the overall results with a 3x2 analysis of variance for each factor.

Analysis results. Table 20 is a summary of the means and standard deviations of the genders by age category for each of the four Perspective Transformation factors. The mean of each age category was in the Agree range for all except the future benefits factor, where all the

means were in the Neutral range. Women's responses had both the maximum (3.91, Late age category) and minimum (3.71, Early age category). No mean was higher in any category for either gender in any factor than the Middle category. No mean of men's responses was lower than those in the Late category. However, on the Understanding Benefits and the Future Benefits factors, the means of responses of women in the Early age category were lowest.

A 3x2 ANOVA to investigate the differences in the Perception of Changes factor by men or women in the three adult Age Categories showed a significant main effect for age category, $F(2, 533) = 3.50$, $p = .03$, $R^2 = .02$, a non significant main effects for gender, $F(1, 533) = 0.11$, $p = .75$, $R^2 = .02$, and a significant interaction effect between the Late and Middle age categories, $t(533) = -2.64$, $p = .01$, $R^2 = .02$. Because the interaction between age groups was significant, the main effect was ignored to investigate more closely the differences in perception of change between the Late and Middle age groups. To control against Type I error, alpha was set at .025

Table 20

Perspective Transformation Factor Means (and Standard Deviations) by Adult Age Category and Gender

	Early (18 - 39)		Middle (40 - 59)		Late (60+)	
Factor	Men (n = 64)	Women (n = 88)	Men (n = 81)	Women (n = 99)	Men (n = 90)	Women (n = 112)
Perception of change	4.38 (0.58)	4.41 (0.59)	4.48 (0.64)	4.52 (0.64)	4.27 (0.62)	4.37 (0.71)
Considering change	4.07 (0.75)	4.03 (0.65)	4.08 (0.80)	4.04 (0.65)	4.03 (0.67)	4.02 (0.91)
Understanding benefits	4.20 (0.54)	4.10 (0.70)	4.20 (0.63)	4.20 (0.67)	4.07 (0.64)	4.17 (0.80)
Future benefits	3.80 (0.71)	3.71 (0.71)	3.81 (0.92)	3.85 (0.82)	3.76 (0.85)	3.91 (0.84)

Note. All items' responses were Likert: 1 Strongly Disagree - 5 Strongly Agree. Gender $N = 585$ (12 missing), Men $n = 262$, Women $n = 323$. Adult Age Category $N = 534$ (63 missing), Early $n = 152$, Middle $n = 180$, Late $n = 202$.

for the follow-up test. The mean of the Late adult age category was significantly less than the mean of the Middle age category, $t(531) = -2.61$, $p < 01$.

A 3x2 ANOVA to check for differences in the Considering Changes factor by men or women in the three adult Age Categories showed no significant main or interaction effects, $F(5, 528) = 0.31$, $p = .90$, $R^2 = .00$.

A 3x2 ANOVA to investigate any differences in the Understanding Benefits factor by men or women in the three adult Age Categories showed no significant main or interaction effects, $F(5, 533) = 0.66$, $p = .66$, $R^2 = .01$.

A 3x2 ANOVA to investigate the differences in the Future Benefits factor by men or women in the three adult Age Categories showed no significant main or interaction effects, $F(5, 532) = 0.73$, $p = .60$, $R^2 = .01$.

Research answer. Self-reported perception of perspective transformation among men and women in the adult age categories was significantly different at the .03 level. Follow-up testing revealed that regardless of gender, the Late (age 60 and up) adult age category self-reported significantly lower levels of agreement than the Middle (age 40-59) adult age category that changes had been perceived. All other observed differences between men's and women's perception of change, considering change, understanding the benefits of change, or awareness of the future benefits of change were all not significant at the .05 level; they could be attributed to random variation and/or sampling error.

Research Question 4

To what extent did personal reflection, learning experiences, and/or demographics predict or explain self-reported perspective transformation in evangelical faith-based adult nonformal education participants?

Data analysis. Each of the four Perspective Transformation factors (Table 14) were designated the Y variable, against which the Personal Reflection factor and the three Learning Experience factors Table 16) could be analyzed using multiple regression. In a separate procedure, the unfactored Particular Demographic variables of number of major changes in life (Table 7), timing and food provisions of the meeting (Table 9), and years of exposure to evangelical faith-based adult education were also input to a regression analysis to determine how well they explained the Perspective Transformation factors.

Analysis results. The model results of each factor were significant. The values for the Perspective Transformation Perception of Change factor were $F(4, 589) = 38.95$, $p < .001$, $R^2 = .21$, adjusted $R^2 = .20$, $MSE = .57$. All three Learning Experience factors and the Personal Reflection factor were significant ($p < .05$): Influential Individual factor ($b = 0.33$, $SE = 0.05$, $t = 5.91$, $p < .001$), Personal Reflection ($b = 0.16$, $SE = 0.04$, $t = 3.81$, $p = .0002$), Writing Assignments ($b = -0.17$, $SE = 0.03$, $t = -2.73$, $p = .0065$), and Learning Activities ($b = 0.11$, $SE = 0.04$, $t = 2.51$, $p = .01$). Note that the prediction of the Learning Experience Writing Activity factor was negative.

Values for the Perspective Transformation Considering Change factor were $F(4, 589) = 43.57$, $p < .001$, $R^2 = .23$, adjusted $R^2 = .22$, $MSE = .65$. The significant predictors were the Learning Experiences Influential Individual factor ($b = 0.29$, $SE = 0.05$, $t = 5.408$, $p < .001$), Personal Reflection ($b = 0.20$, $SE = 0.05$, $t = 4.28$, $p < .0005$), and Learning Activity ($b = 0.19$, $SE = 0.05$, $t = 3.83$, $p = .0005$). The Learning Experience Writing Activity factor was not significant.

Values for the Perspective Transformation Understanding Benefits factor were $F(4, 589) = 105.94$, $p < .001$, $R^2 = .42$, adjusted $R^2 = .42$, $MSE = .52$. The same three factors were

significant ($p < .005$), but in a different order: Personal Reflection ($b = 0.27$, $SE = 0.04$, $t = 7.28$), Influential Individual ($b = 0.38$, $SE = 0.04$, $t = 9.12$), and Learning Activity ($b = 0.18$, $SE = 0.04$, $t = 4.57$). The Learning Experience Writing Activity factor was again not significant.

Values for the Perspective Transformation Future Benefits factor were $F(4, 589) = 82.43$, $p < .001$, $R^2 = .36$, adjusted $R^2 = .36$, $MSE = .65$. Personal Reflection and all three Learning Experience factors were significant: Personal Reflection ($b = 0.34$, $SE = 0.05$, $t = 7.27$, $p < .001$, Influential Individual ($b = 0.38$, $SE = 0.05$, $t = 7.12$, $p < .001$), Learning Experience Writing Activity factor ($b = 0.08$, $SE = 0.034$, $t = 2.70$, $p < .001$), and Learning Activity ($b = 0.10$, $SE = 0.05$, $t = 2.01$, $p = .05$),

One Particular Demographic variable significantly predicted or explained one Perspective Transformation factor at the .05 level. The Particular Demographic variable Number of Major Changes in Life ($b = 0.04$, $SE = 0.01$, $t = 2.82$, $p = .005$) significantly predicted Perspective Transformation Perception of Change, $F(1, 548) = 7.93$, $p < .005$, $R^2 = .01$, adjusted $R^2 = .01$, $MSE = .62$. However, it did not significantly predict Considering Changes $F(1, 548) = 0.37$, $p = .54$, $R^2 = .00$, adjusted $R^2 = .00$, $MSE = .74$, Understanding Benefits, $F(1, 548) = 1.70$, $p = 19$, $R^2 = .00$, adjusted $R^2 = .00$, $MSE = .67$, or Future Benefits $F(1, 548) = 1.43$, $p = 23$, $R^2 = .00$, adjusted $R^2 = .00$, $MSE = .81$.

The Particular Demographic variables of timing and food provisions of the meeting did not identify any significant main effect or interaction effects for Understanding Benefits, $F(5, 403) = 1.64$, $p = .15$, $R^2 = .02$, adjusted $R^2 = .01$, $MSE = .69$. The Particular Demographic variable of timing of the meeting did not significantly predict Perception of Change, $F(3, 403) = 1.21$, $p = .31$, $R^2 = .01$, adjusted $R^2 = .00$, $MSE = .65$; Considering Change, $F(3, 403) = 1.12$, $p =$

.34, R^2 = .01, adjusted R^2 = .00, *MSE* = .72; or Future Benefits, *F*(3, 403) = 0.93, *p* = .43, R^2 = .01, adjusted R^2 = .00, *MSE* = .81.

The Particular Demographic variable of years of exposure to Faith-based education did not significantly predict Perception of Change, *F*(1, 565) = 0.00, *p* =.99, R^2 = .00, adjusted R^2 = .00, *MSE* = .64; Considering Change, *F*(1, 565) = 1.15, *p* = .29, R^2 = .00, adjusted R^2 = .00, *MSE* = .74; Understanding Benefits, *F*(1, 565) = 0.11, *p* = .74, R^2 = .00, adjusted R^2 = .00, *MSE* = .67; or Future Benefits, *F*(1, 564) = 1.09, *p* = .30, R^2 = .00, adjusted R^2 = .00, *MSE* = .80.

Research answer. The self-reported perspective transformation factors of perception of change, considering changes, understanding the benefits of change, and future benefits of change in evangelical faith-based adult nonformal education participants were all significantly predicted or explained by the Learning Experience variable's Influential Individual and Learning Activity factors, as well as the Personal Reflection factor. The Learning Experience variable's Writing Assignments factor was a significant negative predictor of Perception of Change, a positive predictor of Future Benefits, and a nonsignificant predictor at the .05 level of Considering Change and Understanding Benefits. The ability of Learning Experience and Personal Reflection to predict or explain self-reported perspective transformation was statistically significant at the .05 level.

The Particular Demographic item of Number of Major Changes in Life (Item 41) was discovered to significantly predict or explain at the .05 level on the Perspective Transformation variable's Perception of Change factor, but not on any of the other Perspective Transformation factors. The Particular Demographic items of Years of Exposure to Faith-Based Adult Education (Item 42) and Item 46d, the Provision of Food item developed for use in the study, did not predict or explain any of the Perspective Transformation factors in the study at the .05 level.

Chapter Summary

This chapter presented the results from deployment of an adaptation of Madsen and Cook's (2010) Learning Survey to a non-probability sample of participants in evangelical faith-based adult nonformal education sponsored by a randomly-selected cluster sample of churches in a given metropolitan area in the Midwest. The three-page instrument collected data designed to measure self-reported perspective transformation (Mezirow, 2000) and the extent to which personal reflection and certain learning activities influenced any transformations that occurred. General and specific demographic items completed the survey.

The instrument was distributed to all adult participants in faith-based education programs sponsored by randomly-selected churches, stratified by their worship service perspective, in a certain metropolitan area of the Midwestern United States, whose leader had agreed in advance to support the research. Initial telephone calls, followed up by an e-mailed draft version of the instrument, were used to gain church leaders' approval. Churches that could not be reached or whose leaders declined to participate were replaced by the next randomly-selected church in the sampling frame. After four weeks of outreach, the leaders of 14 churches had agreed to allow the survey to be distributed to those participating in their adult education programs; of those 14, 11 churches returned 597 of the 1,000 surveys, resulting in a 59.7% response rate.

The demographics of the sample were significantly different at the .05 level in each category than those reported by the U.S. Census Bureau for the geographic area of the study: The relative proportion of participants who were female, aged 60 or over, married, or who held undergraduate and graduate degrees, was higher. The proportion of those with a Restoration perspective was also significantly higher than desired; the Charismatic percentage was achieved.

An overall Cronbach's α = .94 for the 40 total items measuring the Perspective Transformation, Personal Reflection, and Learning Experiences variables gave a measure of survey-item reliability. Exploratory Factor Analysis with Oblimin rotation partially validated each of the original three Perspective Transformation scales adapted for the study: one Perception of Change item loaded unexpectedly on the Considering Change factor, replacing the one item that was excluded. The other two factors emerged when the nine items in the original Awareness of the Benefits of Change and Prediction of Future Behaviors scale split according to their time orientation into current and future benefits factors. The study also partially validated the Learning Experience variable: one Learning Experiences item loaded unexpectedly on the Influential Individual factor. The second Learning Experience factor derived from learning experiences and outside influences that were thought-provoking in nature; the third Learning Experiences factor derived from learning experiences that involved writing.

Research Question 1 concluded that 86% of the participants reported some level of agreement that perception of perspective transformation had occurred. Research Question 2 found that the differences between men's and women's responses to the four Perspective Transformation factors were not significant at the .05 level. Research Question 3 found significant differences between the Middle- and the Late-adult age categories. Research Question 4 found that learning experiences (influential individuals, learning activities, and in two cases, writing assignments) and personal reflection did significantly explain all four factors of perspective transformation (perception of change, considering change, benefits of change, and future change). The number of major changes in life also significantly predicted or explained perception of change.

CHAPTER 5

CONCLUSION

The chapter provided a conclusion of the study that used an adapted version of Madsen and Cook's (2010) Learning Survey to assess the perceived occurrence of perspective transformation in a cluster sample of participants in faith-based adult nonformal education. The relative extent to which personal reflection, learning experiences, and demographics were associated with the change was also assessed. Descriptive statistics, factor analysis, analysis of variance, and multiple regression were used to analyze quantitative data.

Summary of the Study

Provided in this section was a summary of the purpose, significance, method, and findings of the study of self-reported perspective transformation in evangelical faith-based adult nonformal education in a certain metropolitan area of the Midwestern United States.

Purpose

The purpose for conducting the study was to examine the extent to which participants involved in evangelical faith-based adult nonformal education in a given area of the Midwestern United States self-reported perspective transformation having occurred. The relative frequency of personal reflection and relative influence of learning experiences associated with perspective transformation, as well as the general and particular demographics of the participants associated with such transformations were also studied.

Significance

The study took the scientific study of Mezirow's (2000) transformative learning theory into the relatively unfamiliar territory of evangelical faith-based adult nonformal education using a new quantitative instrument. Both the topic of the inquiry and the method by which it was

studied put into action E. W. Taylor's (2000) suggestion to broaden the scope of transformative learning theory research and diversify the methods used to collect data. Transformative learning theory originated from qualitative research (Mezirow, 1981) and methods to study it since then have been predominantly naturalistic and phenomenological (E. W. Taylor, 2000).

Also significant was the feedback the study provided to church and ministry leaders on the efficacy of their education programs' ability to help adults critically reflect on the influences of unexamined assumptions about life and reality that limit their faith. Ministers and leaders could use the study results as an indication of the extent to which learning experiences in their faith-based education programs have facilitated perspective transformations.

Another significance of the study was its possibility to inform professional development of faith-based adult educators. If church leaders and education directors sponsoring learning activities for adults had a clearer definition of the desired results of facilitating transformative learning, then methods to achieve perspective transformation could be developed and used.

Method

The study adapted Madsen and Cook's (2010) almost exclusively-quantitative Learning Survey to collect respondents' perceptions of (a) considering and making changes in their attitudes, (b) the possible benefits of making those changes, (c) the extent to which learning experiences caused them to think deeply, and (d) the relative influence of various learning experiences associated with those changes.

Findings

The study sought to determine the extent to which perspective transformation had occurred, the extent to which gender and age categories predicted or explained those transformations, and which learning experiences were associated with transformations.

Research Question 1. The proportion of participants involved in evangelical faith-based adult nonformal education programs sampled by the study who responded "agree" or "strongly agree" to the factor measuring perception of perspective transformation was 86%; the majority of responses to the other three Perspective Transformation factors were also in agreement. The finding was significant as a possible affirmation of the nature and purpose of faith-based education, and the potential role that transformative learning theory (Mezirow, 2000) might play in increasing faith-based education's efficacy.

Research Question 2. Although the mean of responses from women in the study regarding the relative agreement on the occurrence of perspective transformation was higher than the mean of responses from men, the difference was not statistically significant at the .05 level. The possible significance of this finding was that although differences exist between the sexes, perspective transformation is relevant to both. Another possible significance was that methods to better measure perspective transformation in women or men might need to be developed.

Research Question 3. A significant main effect regardless of gender was found in the responses from the three age categories on the Perception of Change factor; follow-up tests showed that responses from the Late age category were significantly lower than the Middle age category. Responses for the other three Perspective Transformation factors were not significant at the .05 level. The possible significance of this finding was affirmation of development theories that state adults in different ages or stages of life have different needs and goals in, as well as different perspectives on life, but all within an over-arching context that kept three of the four differences small in terms of statistical significance.

Research Question 4. Influential individuals, learning activities, and personal reflection, were all found to be significant predictors or explanations of (a) perception of change, (b)

considering change, (c) understanding the benefits of change, and (d) future benefits of change in perspective. Writing activities as a learning experience were a significant positive predictor of only future benefits and a significant negative predictor of only perception of perspective transformation. The number of major life changes also a significant predictor or explanation of perception of change. The possible significance of this finding was affirmation of the role that faith-based education can play in facilitating perspective transformation, but that the change is influenced by individuals, personal reflection, thought-provoking learning experiences, and major changes in life, not necessarily by writing assignments.

Conclusions

1. Perspective transformation occurred

More than four out of every five participants in evangelical faith-based adult education programs responded "agree" or "strongly agree" that learning experiences had changed their opinions, expectations, or attitudes in life. Further investigation showed that more than three out of every five in the research sample responded agree or strongly agree on the five-item Considering Changes factor. Nearly six out of every ten responded with a level of agreement with the five-item Understanding Benefits factor.

2. Significant age-category differences exist in Perspective transformation

A statistically significant main effect for adult age category regardless of gender and a significant difference between adults in the Middle and Late adult age categories on the perception of perspective transformation factor were uncovered. The score for the Early adult age category for this factor fell between the scores for the other two categories. Scores for the age categories on the Considering Change, Understanding Benefits, and Future Benefits factors

of perspective transformation varied, but the differences were small enough to be attributed to random chance.

3. Reflection influenced perspective transformation

Personal reflection was the only scale that every participant completed. The mean of the two items on the four point scale was 2.97, just under the value for "often." As a factor, it was significant in predicting or explaining all four factors of the Perspective Transformation variable.

4. Individuals in leadership roles influenced perspective transformation

Item 23, "Pastors/ministers/counselors in the church," was the only Learning Experience item that had no missing values; it also had the highest mean (4.24 on a 5-point strength-of-influence scale). Item 22, "teachers/leaders in the activity," had the next-highest mean (4.19). These, and the other four items in the Influential Individual factor, significantly predicted or explained all four of the factors of the Perspective Transformation variable.

5. Learning activities influenced perspective transformation

Learning activities, consisting of deep thought, verbal discussion, personal reflection, prayer, fasting, mission trips or practical ministry, and guest speakers, was the third significant factor that predicted or explained all four of the Perspective Transformation variable factors. Although not under the control of the faith-based educator, major changes in life also were a significant predictor of perception of change. Learning Experiences one would otherwise expect in an educational environment, such as structure or location of the activity (Item 29) and reading assignments (Item 33), did not load on any factor. Activities involving writing, that is, writing to others (Item 27), personal journaling (Item 28), and writing assignments (Item 32) were designed to be on the Learning Activity scale but loaded on a separate Writing Activity factor that was a significant negative predictor the Perception of Change factor, a significant positive predictor for

the Future Benefits factor, and a nonsignificant predictor at the .05 level for the Considering Change and Understanding Benefits factors. Thus, learning activities that engaged the adults in the sample in thought-provoking experiences and provided opportunities to express or exchange those thoughts in immediate, verbal contexts were the ones that resulted in significant transformations of perspectives. Similarly, many major changes in life can also be thought-provoking, motivating adults to express or exchange their thoughts or experience verbally.

Recommendations

This section of the chapter contained recommendations for research and for practice.

Recommendations for Further Research

Frames of reference. In the context of perspective transformation, Kegan (2000) asked, "What form transforms?" (p. 52). He then answers his question by evaluating Mezirow's (2000) "frames of reference (meaning perspectives, habits of mind, mind-sets)" (p. 7) as epistemological processes, comparing them to the gradual "process [Constructive-developmental theory] calls development… When a way of knowing moves from a place we are 'had by it' (captive of it) to a place where we 'have it,' and can be in relationship to it" (pp. 53-54). Kegan (2000) then equates perspective transformations to "a call for a *particular* epistemological shift, the move from the socialized [mind] to the self-authoring mind" (p. 65). Kegan (2000) holds that the self-authoring mind can meet the challenges of modernism and postmodernism because it possesses "the internal authority to look at and make judgments about the expectations and claims that bombard us from all directions" (p. 68). By doing so, Kegan points out the close similarities between Transformative Learning theory and Constructive-developmental theory; it is recommended that development be studied in the context of faith-based education.

Gender and age category differences. The data in the study contained a significant difference between the low means of the Late adult age category and the high means of the Middle adult age category. Responses of men in the Late age category were the lowest on all four Perspective Transformation factors relative to the scores of men from the other two age categories. The scores of women in the Late category were lowest on the Perception of Change and Considering Change factors, but scores of women in the Early age category were lowest on the Understanding Benefits and Future Benefits factors relative to women in the other age categories. No scores were higher for either men or women than the scores of the Middle age category for the Perception of Change, Considering Change, and Understanding Benefits factors. Men in the Middle age category and women in the Late age category had the highest responses on the Future Benefits factor relative to the other age categories. These results suggested that both women and men over 60 have had their frames of reference influenced in certain ways that prevented them from perceiving or considering changes in perspective, but that women over 60 were higher in agreement on the future benefits of perspective transformation than either men or women in the other age categories. Additional research is recommended to investigate further how transformative learning theory applies in older populations of faith-based learners.

Conversely, the Early age category for both sexes generally had the second-lowest means of all the age categories. The Early adult age category has been where the most attrition has occurred over the last few decades in the faith-based population (Hadaway, 1999; Kosmin & Keysar, 2009; Lugo et al., 2008; University of California, Berkeley, 2010). Additional research is recommended among adults in this age group to validate the national statistics and determine what factors strengthen transformation of perspectives toward faith.

Learning activities. Thought-provoking learning activities in the study significantly predicted or explained transformative learning in participants in faith-based adult education, but others expected to be influential were not. Item 33, assigned readings, which in the evangelical context would be presumed to be Bible readings, was one item that was expected to be very significant; it loaded on the two-factor model, but was eliminated in the first run of the chosen three-factor model. Although strictly speaking not a learning activity controlled by the faith-based educator, major changes in life also were a significant predictor of perception of change. Further research is recommended to investigate the differences in learning activity item performance more deeply and to explore ways to improve the performance of learning activities thought essential.

Expanded research. The study focused on perspective transformation only in the top three evangelical protestant religious bodies in a certain Midwestern U.S. metropolitan area. However, a large number of other evangelical protestant religious bodies, including those which are predominantly African-American, Latino, Asian, nondenominational, or interdenominational, exist not only in the same metropolitan area, but regionally, nationally, and internationally. In addition, evangelical-protestant faith-based organizations specializing in educating and training believers, operate in this area. Reaching out beyond the evangelical tradition, religious bodies considered to be mainline protestant and religious bodies considered to be fundamental, also have their own faith-based education programs for adults. Further research is recommended to explore the similarities and differences of perspective transformation in all these contexts.

Teaching styles. The study focused on the results in adult learners in faith-based nonformal education, not on the teaching styles or educational perspectives of the educators. The study recommends further research on how the various teaching styles resulting from

student- or teacher-centeredness, extent of student-student or student-teacher interaction, and the extent to which students and/or teachers take responsibility for learning and/or selecting the content being studied effect perspective transformation.

Other variables. Given that the independent variables in the study were delimited to just learning experiences and perspective transformation, other key variables influencing the learning process had to be ignored. Further research is recommended on how factors such as learning styles, learning environments, learning venue, curriculum types, and the use of technology influence perspective transformation in faith-based education.

Recommendations for Practice

The study has several recommendations for practitioners of evangelical faith-based adult nonformal education.

Transformative professional development. The study concluded that individuals of influence were significantly associated with perspective transformation. It is recommended that church leaders and education directors ensure the people in influential individual roles implement Apps' (1972, 1991) advice regarding their role as facilitators of adult learning and the unique differences that adults in faith-based educational settings have compared to non-adults. It is recommended that best practices for teaching adults and best practices for teaching or training for transformation be included in the professional development of those in, or aspiring to, key leadership roles in faith-based education for adults.

Personal reflection and transformative learning experiences. The study concluded that personal reflection and certain learning activities were significantly associated with perspective transformation while other learning activities were not. It is recommended that church leaders and directors of education promote policies and procedures in their faith-based

education programs for adults that emphasize personal reflection and transformative (as opposed to merely informative) learning, and that those leading the learning activities support and implement those policies in their learning environments.

Value the affective domain of learning. The ultimate goal of faith-based educators is for learners in their programs to reach the *characterization* level of the Affective Domain of learning. Thus, it essential that church leaders, directors of education, and those key influential individuals in direct contact with adult learners to value affective domain learning objectives and teaching methods.

Provision of food. The findings of the research implied something that church leaders and education directors may wish to consider. Although provision of food itself did not emerge from the data as a significant item associated with perspective transformation, it could set the stage for extended interaction, in a less-formal and less-threatening environment than a classroom, with the influential individuals that were a significant factor. Sharing a meal together in a relaxed setting is also conducive to conversation; the item regarding verbally discussing one's concerns loaded on the factor which was a significantly strong influence on all four perspective transformation factors.

Discussion

Differences Between the study and the Original

The study was similar to Madsen and Cook's (2010) original use of the Learning Survey (LS) in that adults in an educational environment were the participants. Some of the major differences were that the LS was administered online to students attending Abu Dhabi Women's College in the United Arab Emirates; most (47%) of the students (N = 294) were age 22 - 24, only 9 (3%) were over 31.

The choice for which number of factors was best in the Perspective Transformation model was a major difference from the original LS. The two-factor model had the best scree-test results, but could not adequately explain the multifaceted theoretical constructs of Perspective Transformation; bifurcation of the phenomenon amounted to an "Influential Individuals" factor and an "All Else" factor. The four-factor model had the closest alignment with the theoretical framework of the study, but strayed from best practice guidelines (Costello & Osborne, 2005) of having at least three items per factor, even though the Personal Reflection factor in the current and original studies only contained two items from the start. The Scree plots suggested that the three-factor model was most appropriate, although this caused some items from different theoretical bases to load on the same factor. Thus the best-fitting four-factor model was selected.

Sample v. Census data. The significantly high proportion of late-adult participants in the sample corroborated the deepening national trend since the early 1990s (Hadaway, 1999; Kosmin & Keysar, 2009; Lugo et al., 2008; University of California, Berkeley, 2010) of how few in the early-adult category participate in organized church-sponsored faith-based education. This also corroborates the findings of the national studies mentioned above that show the rates of adherence to and self-identification as evangelical Christians remaining high among the eldest. Even though it was known that three of the six surveys rejected as incomplete were from adults under 30, the relatively large number of missing responses to the age question could not be attributed only to a generational influence on respondents of Early Adult age category.

The true scarcity of under-30 adults in the sample was somewhat masked by the higher proportion (55%) of over-30 adults in this category, possibly reflective of a unusual higher-than-normal number of people in their 4th decade in the population in the area of the study (U.S.

Department of Commerce, 2010). This external factor could have mitigated the already significantly high number in the Late Adult category.

At least two factors should be considered when comparing Census education level estimates and sample results. First, the Census estimates were only for adults age 25 and older, whereas the sample included adults down to 18. The dearth of adults under age 30 in the sample mentioned previously does not provide a reasonable explanation for the lower percentage of less-than-high-school education or higher percentage of higher education completion. It may be more likely that the high ratio of late adults in the sample, whose secondary education would have been in the 1920s - 1950s, were influenced by quite different conditions of and attitudes toward education than those for the younger adults near the end of the 20th century. Second, responses of "Trade School" as the highest level of education attained were recoded as "High School" for comparison with the Census estimates, which do not count trade schools as education. Given that high school completion or its equivalent is required for admission into technical institutes, recoding these responses were considered appropriate.

Relationships to conceptual framework

The findings of the study aligned with the tenets of its theoretical framework, Mezirow's (2000) transformative learning theory, an explanation of the process by which only adults can make their frames of reference (also known as meaning perspectives) and the points of view based on those cognitive foundations, more dependable through critical self-reflection. Personal reflection, as well as learning activities which promote it, were significantly associated with changes is perspective in adult participants in evangelical faith-based education programs. Major changes in life, some of which can cause disorienting dilemmas (Mezirow, 2000), also were a significant predictor of perceived change; this also supported the theoretical framework.

Outcomes

What worked. The strategy of personal telephonic outreach to church leaders to introduce the project and gain their trust on the research topic was time consuming, but paid excellent dividends. Most who agreed to the survey being administered to their congregants were enthusiastic about the opportunity. Several church leaders tried diligently to fit the study into their Sunday-morning education schedules, but were unable finally in good conscience to do so; had the survey been available for online distribution, they would have agreed to participate.

What did not work. Stratified random cluster sampling of churches to achieve a desired number of participants on each stratum did not work because the size of the church was not known, reducing the overall effect to that of a convenience sample. The study received unmerited favor of Providential magnitude by the random selection of a church from the Restoration perspective of worship with a faith-based adult education program large enough by itself to supply more than enough participants from that stratum for the study.

Instrument item improvements. A number of instrument items produced responses that caused problems in the data. Most of the Perspective Transformation items seemed wordy; all of them required two lines of text. The psychometrics of the Learning Experience items adapted for the survey were poor, resulting in items not loading on the same factors as the original. If the study were to be replicated, these items should be improved.

Item 2, designed along with Items 1 and 3 to constitute the Perception of Change factor, loaded with .41 communality on the two-factor model under the same factor with Items 10 - 18, the a priori Awareness of Benefits factor, whose lowest communality was .62. The third-person orientation of Item 2 ("others have experienced some change in their lives because of their learning experiences") did not align well with the first-person orientation Items 10 - 18 ("my

learning experiences…have helped me"). Because it neither aligned well with nor loaded as strongly as the other items in its factor, Item 2 perhaps should have been excluded. However, since it was one of the top-performing Perspective Transformation items and one of the difference makers when the data were subdivided by gender, Item 2 was retained in that model. In the three-factor model, Items 1 and 2 loaded together with Items 10 - 15 on a Perceptions of Benefits factor. Only in the four-factor model did Items 1 and 2 load together on their own factor as they were expected to do from the outset.

Item 3, by comparison, loaded on the two-factor model with .59 communality with Items 4 - 8 on Factor 2. Although designed to measure a perception of change, Item 3 did not use that word as Items 1 and 2 did. The wording of Item 3 ("I no longer agree with some of my previous *attitudes* or *opinions* [italics added]") was similar to the process described in four of the five other items in the factor that used some variation of the verb "to think". The ambiguity of "*some* of my previous attitudes or opinions [italics added]" should be clarified to identify of which attitudes or opinions the researcher is interesting in knowing the specifics in the faith-based context. Instead of loading together with Items 1 and 2 into a Perception of Change factor in the original implementation of the survey, it loaded with other items on the Considering Differently factor. These same six items remained clustered together in the three-factor model. Only Item 5 in this cluster failed to load on the final version of the factor referred to as considering change.

Item 26, "class/group projects, educational activities/exercises" loaded on the Influential Individuals scale, perhaps because respondents were focusing more on the individuals in the class or group with whom they accomplished the projects or exercises, rather than on the activities themselves. Whatever the cause, Item 26 should be improved to so that it gathers data on the influence of the activities apart from the influence of co-participating individuals.

Items 27 ("Writing to others"), 28 ("Personal journal"), and 32 ("Writing Assignments"), which comprised the Writing Assignments factor in the study, were expected to load along with the other items in the Learning Activities scale. Additional research is recommended to learn why these items loaded on a separate, significant factor.

Items 36 ("Missions trips and/or practical ministry involvement") and 37 ("Guest speakers"), loaded on the three-factor model as a learning activity, rather on the Outside Influences scale of the Learning Experiences variable. Items 38 ("Programs on TV, radio, or the Internet"), 39 ("Employment"), and 40 ("Activities or events not sponsored by the church") loaded on the "Educational activities" factor on the Learning Experiences two-factor model only. Given that the two factors in the model amounted to an Influential Individuals factor and an "Everything Else" factor, it was understandable why they loaded on the latter factor. More research is recommended on why the Outside Influences factor did not emerge, and why these items did not load on it as expected. It is also recommended that items be developed that effectively measure the influence of these and other activities outside the control of the faith-based educator.

The Particular Demographic items also did not produce clean data, probably due to their poor psychometric qualities. The identity of "faith-based education meetings" should be more clearly distinguished from the main worship service meetings in which sermons are preached from the pulpit. The outlying data points reporting meeting sizes with values into the hundreds caused the meeting size data distribution to be outside the limits for skewness and kurtosis.

Relationship of findings to the literature

The findings of the study supported two concepts reviewed in the literature. Variations in perspective transformation among the age categories support Levinson's (1978) adult

development theory. The Middle age category, which in Levinson's view generally holds the majority of positions of authority and decision-making, had the highest relative scores in the study regardless of gender on three of the four factors of perspective transformation.

The importance of community-centered learning environments, a characteristic of effective learning environments derived by the National Research Council (Bransford et al., 2000) was also supported by the study's finding of influential individuals in leadership roles. The significance of a strong relationship with the leader or facilitator was evident in the data.

Chapter Summary

The study explored the extent to which self-reported perspective transformation occurred in evangelical faith-based adult education programs, and the extent to which gender, age, personal reflection, and learning experiences were associated with the changes. Data from the survey adapted for the study supported the conclusions that perspective transformations did occur and that differences between the high Middle age category scores and the low Late age category scores were significant at the .05 level. The study concluded that personal reflection and learning experiences involving influential individuals and thought-provoking learning activities significantly predicted perspective transformation; writing assignments were negative predictors of perception of change but positive predictors of future benefits. The number of major changes in life also was also a significant predictor of perception of change. These findings supported the theoretical framework of the study and aspects in the literature concerning teaching for transformation. Expanding the research into faith-based education sponsored by doctrinally-, racially-, and culturally-diverse evangelical religious bodies is recommended. Practitioners are encouraged to include transformative learning principles into their faith-based educational programs.

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APPENDIX A

EVANGELICAL PROTESTANT RELIGIOUS BODIES,

MIDWESTERN U.S. METRO AREA

Table A-1

Evangelical Protestant Religious Bodies, Midwestern U.S. Metro Area

Religious Bodies	Number	Adherents
American Baptist Association, The	11	1761
Assemblies of God	35	5432
Baptist Missionary Association of America	33	6984
Calvary Chapel Fellowship Churches	1	n.a.
Christian Churches and Churches of Christ	14	3342
Christian Union	2	45
Church of God (Anderson, Indiana)	1	20
Church of God (Cleveland, Tennessee)	7	741
Church of Christ in God, Mennonite	1	212
Church of God of Prophecy	1	37
Church of the Brethren	1	33
Church of the Nazarene	15	2088
Churches of Christ	44	6880
Community of Christ	1	128
Cumberland Presbyterian Church	2	90
Evangelical Free Church of America, The	3	285
Free Methodist Church of North America	1	35
General Association of Regular Baptist Churches	4	239
Independent, Charismatic Churches	1	6500
Independent, Non-Charismatic Churches	1	500
International Church of the Foursquare Gospel	1	129
International Churches of Christ	1	68
International Pentecostal Holiness Church	7	370
Lutheran Church--Missouri Synod	7	1744
Mennonite Brethren Churches, U.S. Conference of	1	24
Mennonite Church USA	1	35
National Association of Freewill Baptists	21	2661
Old Order Amish Church	1	19
Orthodox Presbyterian Church, The	1	22
Pentecostal Church of God	13	1538
Presbyterian Church in America	1	203
Primitive Baptist Churches--Old Line	4	n.a.
Salvation Army, The	3	389
Seventh-day Adventist Church	10	2033
Southern Baptist Convention	79	63,597
Southwide Baptist Fellowship	1	n.a.
Vineyard USA	1	164
Wesleyan Church, The	2	156
Wisconsin Evangelical Lutheran Synod	2	266
Totals	336	108,770

Note. Adapted from the Association of Statisticians of American Religious Bodies (2002).

APPENDIX B

PERMISSION TO USE THE LEARNING SURVEY

Subject: RE: Permission to Use the Transformative Learning Quantitative Instrument
From: Susan Madsen <MADSENSU@uvu.edu>
Date: 8/15/2012 6:31 AM
To: Phil Gerke <pgerke@uark.edu>

Thanks for asking, Phil. I have attached a Word version of the instrument. Just cite me our article in your work and that will be fine.

Dr. Susan R. Madsen
Professor of Management
Orin R. Woodbury Professor of Leadership and Ethics
Utah Valley University
Woodbury School of Business
800 West University Parkway, MS 119
Orem, UT 84058-5999
Office: WB 225
(801) 863-6176
madsensu@uvu.edu

From: Phil Gerke [mailto:pgerke@uark.edu]
Sent: Tuesday, August 14, 2012 2:50 PM
To: Susan Madsen
Subject: Permission to Use the Transformative Learning Quantitative Instrument

Dear Professor Madsen,

I am seeking permission to use the quantitative instrument used to measure Transformation Learning in the research article "Transformative learning: UAE, women, and higher education" co-authored with Bradley Cook.

I am a doctoral candidate at the University of Arkansas, Fayetteville, working to finalize my research proposal for my dissertation on Transformative Learning in faith-based adult nonformal education. I have permission from King to use her Learning Activities Survey, but as was pointed out in the above article, it has some drawbacks.

It appears that using the quantitative instrument you and Cook used would greatly benefit my research. I am excited about the new possibilities using the purely quantitative instrument brings to my project.

I look forward to your reply.

Sincerely,

-Phil Gerke
[redacted]
PhD Candidate, Curriculum and Instruction
University of Arkansas, Fayetteville

APPENDIX C

PERMISSION TO USE THE PEW FORUM SURVEY ITEMS

Subject: Re: Permission to Use Pew Forum Survey Questions
From: Alan Cooperman <[redacted]@PewForum.org>
Date: 10/2/2010 12:00 PM
To: [redacted]
CC: Kathleen Flynn <[redacted]@PewForum.org>

Dear Phil,
We make our data freely available to the public, and you are welcome to use it for academic research. Good luck with your dissertation.
Alan

----- Original Message -----
From: Phil Gerke
To: Alan Cooperman
Sent: Sat Oct 02 09:22:41 2010
Subject: Permission to Use Pew Forum Survey Questions

Dear Alan Cooperman,

I would like permission to use a selection of Pew Forum survey questions in my dissertation research. I found questions of interest on the Pew Forum Web site, but I could not determine the Pew Forum's policy on their use by other researchers. I would credit and cite the Pew Forum as the source of the questions.

My proposal is to study the possible relationship between use of Adult Education principles and levels of spirituality in faith-based education for Evangelical Protestant adults. Replicating Pew survey questions would allow a comparison between my results and those from the Pew Forum.

I look forward to receiving your reply.

Sincerely,

-Phil Gerke
PhD Candidate
University of Arkansas, Fayetteville

APPENDIX D

ORIGINAL LEARNING SURVEY (MADSEN & COOK, 2010)

Learning Survey

This survey will help us learn more about the types of learning experiences students are having at Abu Dhabi Women's College (ADWC). We believe that important things are happening here, and with your help we can learn more about this. We will use these results to help improve teaching and learning practices on other campuses by sharing the findings through presentations and publications. We will also share the results with administrators and faculty on your campus so they can understand more about what helps you learn best.

Your responses will be anonymous, so please do not write any identifying information on this questionnaire. This survey should take you approximately 15-20 minutes to complete. I would appreciate it if you would complete every question. If you have any questions you may contact either the researcher, Dr. Susan R. Madsen, on campus or at madsensu@uvsc.edu or ADWC faculty member Jean Fitzgerald at jfitzgerald@hct.ac.ae. Your participation is voluntary, and you are free to withdraw at any time. By completing and submitting this survey you are giving your consent for researchers to use your data in this study. Thank you for your participation.

Definition: In this survey the word "attitude" refers to opinions, feelings, thoughts, views, and general way of thinking.

1. Thinking about your educational experiences at Abu Dhabi Women's College (ADWC), please circle the number that most accurately describes your feelings, thoughts, and views.

		Strongly Disagree				**Strongly Agree**
1.1	My educational experience at ADWC has changed my life in some way (for example, opinions, expectations, or attitudes).	1	2	3	4	5
1.2	I think that other students at ADWC have experienced some change in their lives because of their educational experiences.	1	2	3	4	5
1.3	My educational experiences have helped me realize that I no longer agree with some of my previous attitudes or opinions.	1	2	3	4	5
1.4	I have had experiences at ADWC that have helped me consider thinking differently in some way.	1	2	3	4	5
1.5	I have had experiences at ADWC that have caused me to think about how I have normally acted or behaved in the past.	1	2	3	4	5
1.6	I have thought about acting in different ways since coming to ADWC.	1	2	3	4	5
1.7	I now think differently because of my educational experiences at ADWC.	1	2	3	4	5
1.8	I now act differently because of my educational experiences at ADWC.	1	2	3	4	5
1.9	I now learn differently because of my educational experiences at ADWC.	1	2	3	4	5
1.10	My experiences at ADWC have helped me better understand myself.	1	2	3	4	5
1.11	My experiences at ADWC have helped me better understand others.	1	2	3	4	5

		Strongly Disagree				Strongly Agree
1.12	My experiences at ADWC have helped me be a better member (wife, mother, or sister) of my family.	1	2	3	4	5
1.13	My experiences at ADWC have influenced the way I make choices and decisions.	1	2	3	4	5
1.14	Because of my educational experiences, I now feel I can make a bigger impact or difference in whatever I choose to do in the future.	1	2	3	4	5
1.15	My experiences at ADWC will help me contribute more to my society.	1	2	3	4	5
1.16	My experiences at ADWC have helped me realize that I have more options than I had previously considered.	1	2	3	4	5
1.17	Because of my experiences at ADWC, I have discovered that I have more potential than I had thought.	1	2	3	4	5
1.18	My future goals have changed because of my educational experiences at ADWC.	1	2	3	4	5

2. To what extent has your educational experience caused you to reflect (think deeply about) on your previous decisions or past behavior?

€ Almost never € Occasionally € Often € Almost always

3. To what extent do you reflect (think deeply about) on how your studies impact you personally?

€ Almost never € Occasionally € Often € Almost always

4. When you think of your educational experiences at Abu Dhabi Women's College, how much influence has each of these groups of individuals, activities, or experiences been on your learning and development?

		No Influence				Strong Influence
4.1	Other students at the college	1	2	3	4	5
4.2	Classmates	1	2	3	4	5
4.2	Advisors/counselors	1	2	3	4	5
4.4	Teachers	1	2	3	4	5
4.5	Staff members on campus	1	2	3	4	5
4.6	College administrators	1	2	3	4	5
4.7	Class/group projects	1	2	3	4	5
4.8	Writing about your concerns	1	2	3	4	5
4.9	Personal journal	1	2	3	4	5
4.10	Nontraditional structure of a course	1	2	3	4	5
4.11	Internship	1	2	3	4	5
4.12	Deep, concentrated thought	1	2	3	4	5
4.13	Verbally discussing your concerns	1	2	3	4	5

		No Influence				Strong Influence
4.14	Writing assignments/essays	1	2	3	4	5
4.15	Class activity/exercise	1	2	3	4	5
4.16	Lab experiences	1	2	3	4	5
4.17	Personal reflection	1	2	3	4	5
4.18	Assigned readings	1	2	3	4	5
4.19	Field trips/practicum	1	2	3	4	5
4.20	Guest speakers	1	2	3	4	5
4.21	Employment	1	2	3	4	5
4.22	Extracurricular activities	1	2	3	4	5

Please list any others that may apply: _____

5. Which of the following major changes have occurred while you have been attending this college?

- € Marriage
- € Birth of child
- € Moving
- € Divorce/separation
- € Death of a loved one
- € Change of job
- € Loss of job
- € Other: _____

6. Marital Status: €Single €Married €Divorced/Separated

7. Current Major: €Business €Education € Health Sciences
€ Information Technology €Communication Technology

8. Prior Education:

- € School leavers
- € Completed a diploma
- € Completed a higher diploma

9. How many years have you been enrolled at this college? _____

10. Age:

- € 18-19
- € 20-22
- € 23-25
- € 26-30
- € Over 31

11. Location: €Live in Abu Dhabi €Live off the island of Abu Dhabi

12. Briefly describe how your educational experiences at ADWC have changed your life (such as the way you now think and act and/or your expectations for the future).

THANK YOU SO MUCH FOR YOUR PARTICIPATION!

APPENDIX E

ADULT BIBLE SCHOOL LEARNING SURVEY

Adult Bible School Learning Survey

Completing this survey will help us learn more about the types of learning experiences adults are having in faith-based education (such as adult Sunday school classes or Bible studies, home/small groups, etc.). We believe that important things are happening here, and with your help, we can learn more about this. We plan to use these results to help improve learning experiences in churches by sharing the findings through presentations and publications. Summaries of the survey results (but no information able to be associated with you) will be reported. The survey should take you about 15 minutes to complete.

Your responses will be anonymous, and only group data will be reported. Please contact me, Phil Gerke (pgerke@uark.edu or 479-575-4690) or my advisor, Dr. Mike Miller (mtmille@uark.edu, 479-575-3582) with questions about the survey, or Ro Windwalker (irb@uark.edu, 479-575-2208) with any questions about your rights as a participant. Your participation is voluntary: you are free to decline or withdraw at any time without penalty or loss of benefits. By completing and submitting this survey you are giving your consent for researchers to use your responses. Surveys will be destroyed after data analysis is complete.

Please complete the survey instrument by marking a response to each item. When you have finished, place your survey in the designated return envelope/box at the front of the room. Thank you for your participation!

Definition: In this survey, "attitude" refers to opinions, feelings, thoughts, views, and general way of thinking.

Please think about your learning experiences in adult faith-based adult education. Then, circle the number that most accurately describes your thoughts, feelings, and views.

		Strongly Disagree				**Strongly Agree**
1.	My learning experiences in adult faith-based education have changed my life in some way (for example, opinions, expectations, or attitudes).	1	2	3	4	5
2.	I think that others have experienced some change in their lives because of their learning experiences in adult faith-based education.	1	2	3	4	5
3.	My learning experiences in adult faith-based education have helped me realize that I no longer agree with some of my previous attitudes or opinions.	1	2	3	4	5
4.	I have had learning experiences in adult faith-based education that have helped me consider thinking differently in some way.	1	2	3	4	5
5.	I have had learning experiences in adult faith-based education that have caused me to think about how I have normally acted or behaved in the past.	1	2	3	4	5
6.	I have thought about acting in different ways since coming to adult faith-based education.	1	2	3	4	5

	Strongly Disagree				Strongly Agree
7. I now think differently because of my learning experiences in adult faith-based education.	1	2	3	4	5
8. I now act differently because of my learning experiences in adult faith-based education.	1	2	3	4	5
9. I now learn differently because of my learning experiences in adult faith-based education.	1	2	3	4	5
10. My learning experiences in adult faith-based education have helped me better understand myself.	1	2	3	4	5
11. My learning experiences in adult faith-based education have helped me better understand others.	1	2	3	4	5
12. My learning experiences in adult faith-based education have helped me be a better member (father/husband/son/brother, or mother/wife/daughter/sister) of my family.	1	2	3	4	5
13. My learning experiences in adult faith-based education have influenced the way I make choices and decisions.	1	2	3	4	5
14. Because of my adult faith-based education learning experiences, I now believe I can make a bigger impact or difference in whatever I choose to do in the future.	1	2	3	4	5
15. My learning experiences in adult faith-based education will help me contribute more to my society.	1	2	3	4	5
16. My learning experiences in adult faith-based education have helped me realize that I have more options than I had previously considered.	1	2	3	4	5
17. Because of my learning experiences in adult faith-based education, I have discovered that I have more potential than I had thought.	1	2	3	4	5
18. My future goals have changed because of my learning experiences in adult faith-based education.	1	2	3	4	5

19. To what extent have your learning experiences in adult faith-based education caused you to reflect on (think deeply about) your previous decisions or past behavior?

❑ Almost never ❑ Occasionally ❑ Often ❑ Almost always

20. To what extent do you reflect on (think deeply about) how your learning experiences in adult faith-based education impact you personally?

❑ Almost never ❑ Occasionally ❑ Often ❑ Almost always

Please think about your learning experiences in adult faith-based education. Then, circle the number that most accurately describes how much influence the following individuals, activities, or experiences have had on your learning and development.

	No Influence				Strong Influence
21. Your peers with you in the adult faith-based education activity	1	2	3	4	5
22. Your teachers/leaders in the adult faith-based education activity	1	2	3	4	5
23. Pastors/ministers/counselors in the church	1	2	3	4	5
24. Elders of the church	1	2	3	4	5
25. Others in the church not mentioned above	1	2	3	4	5
26. Faith-based class/group projects, educational activities/exercises	1	2	3	4	5
27. Writing to others about your concerns	1	2	3	4	5
28. Your personal journal	1	2	3	4	5
29. Nontraditional structure or location of the faith-based education	1	2	3	4	5
30. Deep, concentrated thought	1	2	3	4	5
31. Verbally discussing your concerns	1	2	3	4	5
32. Writing assignments/essays	1	2	3	4	5
33. Assigned readings	1	2	3	4	5
34. Personal reflection	1	2	3	4	5
35. Prayer, fasting	1	2	3	4	5
36. Mission trips and/or practical ministry involvement	1	2	3	4	5
37. Guest speakers	1	2	3	4	5
38. Programs on TV, radio, or the Internet	1	2	3	4	5
39. Employment	1	2	3	4	5
40. Activities or events not sponsored by the church	1	2	3	4	5
Please list and rate any others that may apply: _____	1	2	3	4	5

41. Which of the following major changes have occurred in your life while you have been attending adult faith-based educational activities (check all that apply)?

❑ Marriage	❑ Serious accident/illness	❑ Change of job
❑ Birth of child	❑ Divorce/separation	❑ Loss of job
❑ Moving	❑ Death of a loved one	❑ Other: _____

42. For about how many years have you been attending adult faith-based educational activities?
_____

43. Briefly describe how your learning experiences in adult faith-based education have changed your life (such as the way you now think and act and/or your expectations for the future).

The remaining questions are for statistical background characteristic purposes only. To ensure that you cannot be personally identified, your responses from this section will be grouped, not reported at the individual church level.

44. What is your gender? ❑ Male ❑ Female What is your age? _____ years

45. Would you describe yourself as a "born again" or evangelical Christian?
❑ No ❑ Not sure ❑ Christian, but not "born again" or evangelical
❑ Yes, for _____ years

46. Please think of the adult faith-based education activity that influenced you most. When did it usually meet?

On _____(day) from _____ a.m./p.m. to _____ a.m./p.m

About how many other adults usually attended? _____

Was food usually available at the meeting? ❑ No ❑ Yes, a snack ❑ Yes, a meal

47. What is your marital status?
❑ Single ❑ Engaged ❑ Married ❑ Divorced/Separated ❑ Widowed
Are you a parent or guardian?
❑ No ❑ Yes, of _____ children; age range: _____ to _____ years.

48. What is the highest level of education or job-skills training that you have completed?
❑ Less than high school ❑ High school/GED ❑ Certified/specialized trade school
❑ Some college ❑ Associate's degree ❑ Bachelor's degree
❑ Masters degree ❑ Doctorate ❑ Other: _____

49. What denomination or church (if any) sponsored the faith-based education activity you attended?
❑ Assembly of God ❑ Baptist ❑ Church of Christ ❑ Episcopal
❑ Holiness ❑ Lutheran ❑ Methodist ❑ Pentecostal
❑ Presbyterian ❑ Other (please specify): _____
❑ Nondenominational: Not Charismatic ❑ Nondenominational: Charismatic
❑ Not sure

THANK YOU SO MUCH FOR YOUR PARTICIPATION!
Please place your completed survey in the envelope at the front of the room. If you would rather, you can fax it to me at (479) 575-8797 or mail it to me at 100 Graduate Education Building, 1 University of Arkansas, Fayetteville, AR 72701.

APPENDIX F

REQUEST FOR INSTITUTIONAL REVIEW BOARD AUTHORIZATION TO CONDUCT THE RESEARCH

IRB Project Number

UNIVERSITY OF ARKANSAS INSTITUTIONAL REVIEW BOARD
PROTOCOL FORM

The University Institutional Review Board recommends policies and monitors their implementation, on the use of human beings as subjects for physical, mental, and social experimentation, in and out of class. . . . Protocols for the use of human subjects in research and in class experiments, whether funded internally or externally, must be approved by the (IRB) or in accordance with IRB policies and procedures prior to the implementation of the human subject protocol. . . Violation of procedures and approved protocols can result in the loss of funding from the sponsoring agency or the University of Arkansas and may be interpreted as scientific misconduct. *(see Faculty Handbook)*

Supply the information requested in items 1-14 as appropriate. **Type** entries in the spaces provided using additional pages as needed. In accordance with college/departmental policy, submit the original **and** one copy of this completed protocol form and all attached materials to the appropriate Human Subjects Committee. In the absence of an IRB-authorized Human Subjects Committee, submit the original of this completed protocol form and all attached materials to the IRB, Attn: Compliance Officer, ADMN 210, 575-2208. Completed form and additional materials may be emailed to irb@uark.edu. The fully signed signature page may be scanned and submitted with the protocol, by FAX (575-3846) or via campus mail.

1. Title of Project: Learning Experiences And Perspective Transformation In Evangelical Faith-Based Adult Nonformal Education Programs

2. (Students **must** have a faculty member supervise the research. The faculty member must sign this form and all researchers and the faculty advisor should provide a campus phone number.)

	Name	Department	Email Address	Campus Phone
Principal Researcher	Phil Gerke	CIED	pgerke@uark.edu	5-4690
Co-Researcher				
Co-Researcher				
Co-Researcher				
Faculty Advisor	Michael T. Miller	HIED	mtmille@uark.edu	5-3582

3. Researcher(s) status. Check all that apply.

☐ Faculty ☐ Staff ☑ Graduate Student(s) ☐ Undergraduate Student(s)

4. Project type

☐ Faculty Research ☑ Thesis / Dissertation ☐ Class Project ☐ Independent Study /
☐ Staff Research ☐ M.A.T. Research ☐ Honors Project Educ. Spec. Project

5. Is the project receiving extramural funding? (Extramural funding is funding from an external research sponsor.)

☑ No ☐ Yes. Specify the source of funds

IRB Project Number

6. Brief description of the purpose of proposed research and all procedures involving people. Be specific. Use additional pages if needed. (**Do not** send thesis or dissertation proposals. Proposals for extramural funding must be submitted in full.)

Purpose of research:
The purpose of this study is to examine the extent to which perspective transformation has occurred in participants in evangelical faith-based adult nonformal education in Northwest Arkansas, and to study the learning experiences associated with such transformations.

Procedures involving people:
This study would provide randomly-selected churches in Northwest Arkansas with a paper-based survey (attached) to distribute to their faith based adult nonformal education participants (Sunday School classes). Pastors from each of these churches have agreed to have their Sunday School classes surveyed and will distribute and collect the anonymous surveys.

7. Estimated **number of participants** (complete all that apply)

_____ Children under 14 _____ Children 14-17 _____ UA students (18yrs and older) 300 Adult non-students

8. Anticipated dates for contact with participants:

First Contact 9/23/12 Last Contact 3/31/13

9. Informed Consent procedures: The following information must be included in any procedure: identification of researcher, institutional affiliation and contact information; identification of Compliance Officer and contact information; purpose of the research, expected duration of the subject's participation; description of procedures; risks and/or benefits; how confidentiality will be ensured; that participation is voluntary and that refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled. See *Policies and Procedures Governing Research with Human Subjects*, section 5.0 Requirements for Consent.

☐ Signed informed consent will be obtained. **Attach copy of form.**
☐ Modified informed consent will be obtained. **Attach copy of form.**
☑ Other method (e.g., implied consent). **Please explain on attached sheet.**
☐ Not applicable to this project. **Please explain on attached sheet.**

10. Confidentiality of Data: All data collected that can be associated with a subject/respondent must remain confidential. Describe the methods to be used to ensure the confidentiality of data obtained.

All data will be kept confidential to the full extent allowed by State and Federal law. All information, including the name of the sponsoring church, will be anonymous. This should prevent a unique combination of demographics from being narrowly associated with any individual. Only grouped or summarized demographic data will be reported. Data will not be stored on any public-access computer. Paper copies of the instrument will be destroyed after data analysis is complete.

11. Risks and/or Benefits:

Risks: Will participants in the research be exposed to more than minimal risk? ☐ Yes ☑ No Minimal risk is defined as risks of harm not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. Describe any such risks or discomforts associated with the study and precautions that will be taken to minimize them.

Benefits: Other than the contribution of new knowledge, describe the benefits of this research.

None.

12. Check all of the following that apply to the proposed research. Supply the requested information below or on attached sheets:

☐ A. Deception of or withholding information from participants. Justify the use of deception or the withholding of information. Describe the debriefing procedure: how and when will the subject be informed of the deception and/or the information withheld?

☐ B. Medical clearance necessary prior to participation. Describe the procedures and note the safety precautions to be taken.

☐ C. Samples (blood, tissue, etc.) from participants. Describe the procedures and note the safety precautions to be taken.

☐ D. Administration of substances (foods, drugs, etc.) to participants. Describe the procedures and note the safety precautions to be taken.

☐ E. Physical exercise or conditioning for subjects. Describe the procedures and note the safety precautions to be taken.

☐ F. Research involving children. How will informed consent from parents or legally authorized representatives as well as from subjects be obtained?

☐ G. Research involving pregnant women or fetuses. How will informed consent be obtained from both parents of the fetus?

☐ H. Research involving participants in institutions (cognitive impairments, prisoners, etc.). Specify agencies or institutions involved. Attach letters of approval. Letters must be on letterhead with original signature; electronic transmission is acceptable.

☐ I. Research approved by an IRB at another institution. Specify agencies or institutions involved. Attach letters of approval. Letters must be on letterhead with original signature; electronic transmission is acceptable.

☐ J. Research that must be approved by another institution or agency. Specify agencies or institutions involved. Attach letters of approval. Letters must be on letterhead with original signature; electronic transmission is acceptable.

13. Checklist for Attachments

The following are attached:
☐ Consent form (if applicable) or
☑ Letter to participants, written instructions, and/or script of oral protocols indicating clearly the information in item #9.
☐ Letter(s) of approval from cooperating institution(s) and/or other IRB approvals (if applicable)
☑ Data collection instruments

14. Signatures

I/we agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects/respondents are protected. I/we will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I/we agree to request renewal of approval for any project when subject/respondent contact continues more than one year.

Principal Researcher _____ Date

Co-Researcher _____ Date

Co-Researcher _____ Date

Co-Researcher _____ Date

Faculty Advisor _____ Date

APPENDIX G

INSTITUTIONAL REVIEW BOARD MODIFIED AUTHORIZATION TO CONDUCT THE RESEARCH

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

September 27, 2012

MEMORANDUM

TO:	Phil Gerke Michael Miller
FROM:	Ro Windwalker IRB Coordinator
RE:	PROJECT MODIFICATION
IRB Protocol #:	12-09-101
Protocol Title:	*Learning Experiences and Perspective Transformation in Evangelical Faith-Based Adult Nonformal Education Programs*
Review Type:	☒ EXEMPT ☐ EXPEDITED ☐ FULL IRB
Approved Project Period:	Start Date: 09/27/2012 Expiration Date: 09/19/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 1,000 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

210 Administration Building • 1 University of Arkansas • Fayetteville, AR 72701
Voice (479) 575-2208 • Fax (479) 575-3846 • Email irb@uark.edu

APPENDIX H

SURVEY INSTRUCTION SHEET

Learning Survey Instructions and Information Sheet

Dear Survey Administrator,

Thank you for your willingness to participate in this research. These are the instructions for completing the survey.

1. Please read the following directions to the class or group before the survey is distributed:

> *This is from the researcher:*
>
> *I am a Curriculum and Instruction doctoral student at the U of A. The survey I am asking you to complete is a part of my dissertation. Completing this survey will help us learn more about the types of learning experiences adults are having in faith-based education (such as adult Sunday school classes or Bible studies, home/small groups, etc.). We believe that important things are happening here, and with your help, we can learn more about this. We plan to use these results to help improve learning experiences in churches by sharing the findings through presentations and publications. Summaries of the survey results (but no information able to be associated with you) will be reported. The survey should take you about 15 minutes to complete.*
>
> *Your responses will be anonymous, and only group data will be reported. Please contact me, Phil Gerke (pgerke@uark.edu or 479-575-4690) or my advisor, Dr. Mike Miller (mtmille@uark.edu, 479-575-3582) with questions about the survey, or Ro Windwalker (irb@uark.edu, 479-575-2208) with any questions about your rights as a participant. Your participation is voluntary: you are free to decline or withdraw at any time without penalty or loss of benefits. By completing and submitting this survey you are giving your consent for researchers to use your responses. Surveys will be destroyed after data analysis is complete.*
>
> *Please complete the survey instrument by marking a response to each item. When you have finished, place your survey in the designated return envelope at the front of the room. Thank you for your participation!*

2. The surveys should now be distributed, completed, and placed in the envelope provided. Return the envelope to _____, the designated point of contact for the church.

Thank you for your help with the administration of this survey!

-Phil Gerke
Curriculum & Instruction PhD Student
479-575-4690