

An Investigation of the Factors That Motivate Adults to Participate in
Adult Basic Education (ABE) Classes at a Southeastern Wisconsin Community College

by

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A Dissertation presented in partial fulfillment of the requirements for the

Doctor of Philosophy degree in

Leadership for the Advancement of Learning and Service

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Dissertation Approval

As members of the dissertation committee for Maureen Crump-Phillips, and on behalf of the Doctoral Program at Cardinal Stritch University, we affirm that this report meets the expectations and academic requirements for the Ph.D. degree in Leadership for the Advancement of Learning and Service.

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Approval Date

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Dedication

I dedicate this dissertation and my Ph.D. work to all the people who never stopped believing in me and who, along with God, have been my “footprints in the sand.” I acknowledge, in loving memory, my paternal grandmother, Elizabeth Crump (1922-1977), and my maternal grandmother, Christina Jackson (1929-2011), both of whom taught me invaluable lessons in life. I extend a special feeling of gratitude to my paternal great aunt, Irene Powell; my mother, Hiawatha Crump; my daughter, Alexandria Crump-Smith; and my longtime friends, Dawna “Tia” Whaley-Dupree, Sandra Gartrell, and Lucinda Holloway. I often reflect on what I have learned from these women. I learned why it is essential, from cradle to grave, to have a reason to get up in the morning. Whenever I get down or feel pressure, I think of their courage and strength and they motivate me to keep going. They have given me love and understanding and continue to support me in all of my efforts. Their words of encouragement still linger on.

I gain much satisfaction in knowing that by my example I will inspire my granddaughter, Sasha Arielle Smith (born December 3, 2012), and all of my future descendants to give their fears away to determination, replace complacency with a sense of purpose, and to be so connected to their mind, heart, and soul that they have the drive to pursue their dreams and hearts’ passion. It is my hope that no external stimuli will drain their spirit at any stage of their lives’ journeys, they will hold on to their beliefs in the face of reproach, disapproval, and discouragement, and they will take the leap of faith to be who they want to be, a journey which may include the pursuit of intellectual interests and higher education.

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The process of researching the literature and writing the dissertation has taught me a great deal. I have enjoyed the richness of the collaborative process, and I have benefitted from reading the work of other scholars whose research and insights have made this dissertation possible. I have been fortunate to reap a rich harvest from the literature and give an analysis of linking attitudes, subjective norms, perceived self-efficacy, and motivational orientations of ABE students. I offer my thanks to the following people who contributed to my academic, professional, and personal growth. Our interaction enhanced my reflective thinking skills, research and development efforts, and professional and personal learning.

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when I was in doubt. She helped me clarify my research, focus my research questions, and shape my dissertation. She facilitated the alignment of my dissertation timeline, gently prodded me, and kept me on track. Her relationship with me deepened and expanded my capacity to write and defend this dissertation.

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shared your motivation for seeking adult education in a way that gives people insight into your humanity, and presented your voices in a way for all who read this dissertation to hear and feel your universal tale of demonstrated effort to improve your adult literacy skill levels.

I could not have completed this dissertation without the moral support of my colleague, Darren Schach, who helped me navigate the minefield of graduate school and has now seen me through to the finish. Darren, thank you for your time proofreading my class assignments and research papers, asking me questions that challenged my thinking and helping me view issues from multiple perspectives.

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I am grateful to my parents for helping me on my educational journey by telling me that my education is the one thing no one can ever take away from me. My parents are responsible for my love of learning and perseverance; they planted the idea that I should pursue a doctoral degree long, long ago. I know my parents believe in me and want the best for me. Mom and Dad, thank you for teaching me that my aspiration in life is to learn, to be happy, and to know and understand myself.

My daughter, Alexandria C. Crump-Smith, sustains me by being a source of love, inspiration, and encouragement. Her patience, vitality, and sense of direction are remarkable. My daughter accepts me for who I am, understands when I am not perfect, and feels free to be herself around me. No strings. No expectations. Just us—supporting each other. It brings me such pleasure knowing my daughter is an incredibly talented accomplished adult who also finds daily satisfaction in her own life and pursuits. Loving Alexandria has been the greatest joy of my life. Watching Alexandria find love and success has been a very rewarding part of being a mother. For as long as I live, Alexandria will be a central part of my life.

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Writing this dissertation gave me an opportunity to enter the real world of ABE students, and in the process, I have learned to broaden my focus beyond my particular life. I have enhanced two personal attributes during this dissertation journey: a dynamic sense of achievement and an overwhelming feeling of compassion for others. With God guiding my footsteps, I blaze forward with the grace of my ancestors, honoring my inner self, and propelling my allegiance to lead and serve with moral purpose.

Abstract

This study assessed the plausibility of using Ajzen's (1991) Theory of Planned Behavior (TPB) to identify the factors that motivate adults to participate in Adult Basic Education (ABE) classes at a southeastern Wisconsin Community College. The original TPB (Ajzen, 1991) attested that planned behaviors are determined by behavioral intentions which are largely influenced by three determinants: attitude (a student's overall evaluation of enrolling in ABE classes), subjective norm (a student's own estimate of the social pressure from people he/she cares about regarding participating in ABE classes), and perceived behavioral control (the extent to which a student feels able to engage in ABE classes). This study explored the relevance of incorporating Bandura's (1997) general self-efficacy (a student's perception of his/her ability to participate in ABE classes) as one of the three determinants in the TPB instead of using the determinant of perceived behavioral control. Like attitude and subjective norm, general self-efficacy assumes that goal-directed behavior is a purposive action rooted in cognitive activity. The postulate central to this theory is that adults process information and thereby self-regulate their motivational orientations. Thus, in this study, motivational orientations are the cognitive representation of a student's reason to enroll in ABE classes and are the immediate antecedent of behavior that is influenced by the three determinants of the modified TPB: attitude, subjective norm, and general self-efficacy.

To fulfill the objectives of this study a cross sectional paper and pencil survey, consisting of five data collection questionnaires with a total of 80 questions, was administered. The data collection for the study occurred during the Fall 2012 semester, starting on August 23, 2012, and ending on September 27, 2012. The final sample size

was 600 research participants ($n = 600$). The study found that attitude, subjective norm, and general self-efficacy were statistically significant and positively correlated to motivational orientations. The results of the study provide the scientific validation of the power of the TPB and suggest its specificity, in which the determinants of attitude, subjective norm, and general self-efficacy can be used to identify the motivational orientations of adult students enrolled in ABE classes.

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CHAPTER ONE: INTRODUCTION

“Literacy is not a luxury; it is a right and a responsibility. If our world is to meet the challenges of the twenty-first century, we must harness the energy and creativity of all our citizens”

— President Clinton on International Literacy Day, September 8, 1994

At first glance, “literacy” would seem to be a term universally understood. Yet, at the same time, literacy as a concept has proved to be both complex and dynamic, continuing to be interpreted and defined in a multiplicity of ways. People’s notions of what it means to be literate or illiterate are influenced by academic research, institutional agendas, national context, cultural values, and personal experiences. In the academic community, theories of literacy have evolved from those focused solely on changes in individuals to more complex views encompassing the broader social contexts (the “literate environment” and the “literate society”) that encourage and enable literacy activities and practices to occur. Subsequent to these and other developments, understandings in the international policy community have expanded, too: from viewing literacy as a simple process of acquiring basic cognitive skills, to using these skills in ways that contribute to socioeconomic development, to developing the capacity for social awareness and critical reflection as a basis for personal and social change. Chapter One traces the evolution of these different understandings of being (and becoming) literate and shows how variants of these ideas have been integrated into policy discourse. Several important conceptual distinctions emerge, which form the basis for subsequent analyses in this chapter.

The traditional definition of literacy is considered to be the ability to read and write, or the ability to use language to read, write, listen, and speak (Kist, 2005). The definition of what it means to be literate has evolved from simply knowing how to functionally read and write. In academia, the definition of literacy has also evolved from an exclusive focus on reading and writing to encompass a more inclusive and expansive perspective (Kist, 2005). Some of that work has come from researchers involved in exploring literacy among diverse populations and across cultural/political/socioeconomic boundaries. In the introduction to their edited volume, Dubin and Kuhlman (1992) discussed the changing definition of literacy:

On the way to becoming a book, the “literacy” part of our title has taken on meanings that go beyond the simple definition of “reading and writing” as we had conceived of it in 1984. . . . [W]e acknowledge that the word literacy itself has come to mean competence, knowledge and skills. Take, for example, common expressions such as “computer literacy,” “civic literacy,” “health literacy,” and a score of other usages in which literacy stands for know-how and awareness of the first word in the expression. (p. vi)

Dubin and Kuhlman went on to state,

The past decade has been marked by significant new directions in literacy research brought about by questions which seek to discover how literacy functions in families . . . in communities . . . and in workplaces What does it mean to be “literate” as a member of a particular culture? What are the patterns of literacy use within fields of work, within professions, within age-groups? (p. vii)

Hiebert (1991) took an explicitly constructivist perspective to the definition of literacy:

For some time now, a new perspective on literacy, and the learning processes through which literacy is acquired, has been emerging. This new perspective does not consist of old ideas with a new name, but rather it represents a profound shift from a text-driven definition of literacy to a view of literacy as active transformation of texts. In the old view, meaning was assumed to reside primarily within text, whereas, in the new view, meaning is created through an interaction of reader and text. (p. 1)

Langer (1991) took the notion of interaction of reader with text a step further, contrasting “literacy as the act of reading and writing and literacy as *ways* of thinking” (p. 13). This author brought up the notion, alluded to in the foregoing Workforce Investment Act of 1998 definition, that the standards for literacy depend on the context within which one functions: “. . . literacy can be viewed in a broader and educationally more productive way, as the ability to think and reason like a literate person, within a particular society” (p. 11). Langer (1991) argued,

It is the culturally appropriate way of thinking, not the act of reading or writing, that is most important in the development of literacy. Literacy thinking manifests itself in different ways in oral and written language in different societies, and educators need to understand these ways of thinking if they are to build bridges and facilitate transitions among ways of thinking. (p. 13)

Literacy encompasses a complex set of abilities to understand and use the dominant symbol systems of a culture for personal and community development.

According to Kist (2005), literacy is deeply enmeshed in the culture, history, and everyday discourses of people's lives. The evolving definitions of literacy still represent the lifelong, intellectual process of gaining meaning from a critical interpretation of the written or printed text. The Workforce Investment Act of 1998 defines literacy as "an individual's ability to read, write, speak in English, compute and solve problems at levels of proficiency necessary to function on the job, in the family of the individual and in society" (p. 131). This definition is a broader view of literacy than just an individual's ability to read, the more traditional concept of literacy. As information and technology have increasingly shaped our society, the skills we need to function successfully have gone beyond reading, and literacy has come to include the skills listed in the definition proposed by the Workforce Investment Act of 1998.

In modern contexts, literacy refers to reading and writing at a level adequate for communication, or at a level that lets one understand and communicate ideas in a literate society, so as to take part in that society (Kist, 2005). The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009) has drafted the following definition:

Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts.

Literacy involves a continuum of learning to enable an individual to achieve his or her goals, to develop his or her knowledge and potential, and to participate fully in the wider society. (p. 13)

In modern times, illiteracy is seen as a social problem to be solved through education (Kist, 2005). Because literacy is a plural and dynamic concept, neither of these

definitions nor any other definition is the final word. Thereby, the researcher wants to stress that literacy skills and their use are inextricably intertwined. This study uses the terms *illiterate* and *illiteracy* to indicate the absence of literacy competence, without implying the pejorative connotations sometimes associated with them. All of the aforementioned definitions of literacy look at literacy from a more contextualized perspective and include some reference to wider links and purposes. In effect, no single definition of literacy could cover all the situations in which the skills of reading, writing, and written calculations could be useful. In this study, an attempt has been made to short-circuit such discussions. The definition of literacy, then, depends on the skills needed within a particular environment.

Literacy has always been a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. The use of technology has increased the intensity and complexity of literate environments; the 21st century demands that a literate person possess a wide range of abilities and competencies. These literacies—from reading online newspapers to participating in virtual classrooms—are multiple, dynamic, and malleable. As in the past, literacy is inextricably linked with particular histories, life possibilities, and social trajectories of individuals and groups (Kist, 2005).

Literacy can be thought of as a currency in American society (Kaestle, Campbell, Finn, Johnson, & Mikulecky, 2001). Just as adults with limited economic resources have difficulty meeting their basic needs, those with limited literacy skills may find it more challenging to pursue their goals—whether those goals involve job advancement, consumer decision making, citizenship, or other aspects of their lives. The National

Institute for Literacy (NIFL) (National Literacy Summit 2000 Steering Committee, 2000) speculated that even if adults who performed in the lowest literacy levels are not currently experiencing difficulties, they may be at risk as the American economy and social fabric continues to change. Kaestle et al. (2001) insinuated that many people consider literacy issues to be personal concerns that affect the illiterate individual and not society as a whole. In reality, literacy issues are a collective concern that affects the quality and prosperity of our entire nation (Kaestle et al., 2001). The struggle to win the battle of literacy in America is one which should be fought by everyone.

In the United States, there are a number of terms which refer broadly to adult literacy education and which can have overlapping meanings. According to the NIFL (2000), federally funded adult literacy programs encompass a range of educational levels such as Adult Basic Education (ABE), Adult Secondary Education (ASE), and English as a Second Language (ESL). ASE programs lead to the high school credential or its equivalent—the General Education Diploma or GED. Professionals may employ any of these terms to refer to educational activities that, broadly speaking, may be grouped together under the heading of adult literacy activities. As Sparks and Peterson (2000) noted, the term ABE may also refer to any fundamental set of skills that is necessary for functioning as an adult. The skills may not necessarily be those traditionally regarded as skills relating to reading, writing, or mathematics. Throughout this study, the term ABE is used to refer to programs and classes that receive federal funding through the Adult Education and Family Literacy Act (AEFLA), Title II of the Workforce Investment Act (U.S. Department of Labor, 2001). The focus of this study includes students in ABE reading, writing, and mathematics classes. AEFLA also provides classes for teaching

English as a Second Language (ESL), but participants in ESL classes were not the focus of this study.

The Adult Basic Education (ABE) theme is a part of the public discourse on adult literacy activities. Goals for ABE programs range from helping adults to become better prepared to join or participate in the work force or civic life, to increasing skill development, to encouraging personal empowerment, to engaging in social and political change (Evers, Rush, & Berdrow, 1998). The problem is that the literature indicates that those who need the ABE classes the most are the least likely to participate: “Scholars in the field of adult education seem to have reached a consensus on the severity of the dropout problem in basic education programs and the corresponding need for research” (Watson, 1983, p. 25). In a final report written by the Pennsylvania State Department of Education (1993) entitled *Catch them, calm them, keep them (Staff development)*, Dr. Quigley, who at the time was the director of Adult Education at the Monroeville Campus of the Pennsylvania State University, listed a number of reasons that adults drop out of adult education classes: transportation difficulties, child care arrangements, family health, conflicts with the time classes are scheduled, lack of family support, and fear of failure. Quigley added that “all of these problems have solutions if the students have personal motivation. Without personal motivation, a genuine desire to achieve, each one of the problems listed becomes the reason students use for dropping out” (p. 5). To meet the needs of the adult education population, it is important to learn what factors motivate adults to participate in ABE classes. Although increasing participation is the goal of many ABE programs, improving the acquisition of adult basic skills can mean a host of different things (Kegan, 2000). However, whether an ABE program’s favored goals

include the acquisition of basic skills, the personal growth of the learner, or consideration of the adult's real-life demands, the fact remains that the adult learner must be motivated to participate in the ABE program classes.

This chapter provides a presentation of the evolution of federal legislation on literacy; meeting the challenge of adult illiteracy; statement of the problem; current status of the problem; theory and action related to the problem; need for further study of the problem; purpose of the study; the questions that guided the study; the approach of the study; significance of the study; uniqueness and compatibility of the research; contribution to knowledge, theory, and practice; delimitations of the study; limitations of the study; assumptions; parameters; timeframe of the study; vocabulary of the study; and a chapter summary. In this study, the factors that motivate adults to participate in ABE classes were examined. The knowledge gained should prove useful in developing future adult education programs. By gleaning information from adult learners, adult educators can begin to develop policies and strategies that should be effective in meeting the educational needs of adult learners while designing classes and retention strategies to improve ABE initiatives.

Background of the Study

Overview of Federal Literacy Legislation from 1964 to 2003

During the 20th century, literacy came to be seen as a national concern that affected the productivity and competitiveness of the American workforce (USDOE, 2002). The growing link between literacy and economic and societal participation is apparent in the evolution of federal legislation on literacy over a 40-year period from 1964 to 2003, an overview of which is presented in Table 1.

Table 1

Overview of Federal Literacy Legislation from 1964 to 2003

Year	Federal Literacy Legislation	Action
1964	Economic Opportunity Act	The ABE program for workforce participation was established in Title II B of the Economic Opportunity Act of 1964 (Public Law 88-452). A number of state plans were approved and began operation in fiscal year 1965. By the close of fiscal year 1966, all states had established an ABE delivery system and local programs were underway.
1966	Adult Education Act of 1966	The Adult Education Act of 1966 (Public Law 89-750) established the authorization for the Adult Education Program in the Office of Education, expanded the program to adults with limited English proficiency, and authorized grants for special experimental demonstration projects and for teacher training. The act was designed to initiate programs for instruction for persons 18 years and older whose inability to read or write the English language constitutes a substantial impairment of their ability to obtain employment, and generally provided education for adults below the 9th grade level.
1970	Amendment to Adult Education Act	The Adult Education Act was amended (Public Law 91-230) to expand educational opportunities and to encourage adults to continue their education at least through the high school level through the Adult Secondary Education (ASE) program component.
1978	Amendment to Adult Education Act	The Adult Education Act was amended (Public Law 95-561) and defined the purpose as assuring that all adults acquire basic skills necessary to function in society. This reflected adoption of a competency based approach to assessment and programming that identified levels of adult functional competencies as an alternative to school based measures of literacy.

(table continues)

Year	Federal Literacy Legislation	Action
1985	Young Adult Literacy Survey	The first national assessment of adult literacy conducted by the United States Department of Education (USDOE).
1988	Amendment to Adult Education Act	<p>The Adult Education Act was amended (Public Law 100-297), expanding the scope to include:</p> <ul style="list-style-type: none"> -The National Workplace Partnerships Program to support basic skills programs for workers through partnerships between business or labor organizations and education agencies -The English Literacy Grants Program to support services to limited English proficient adults (and their families) -A program of research and development to identify and evaluate exemplary practices in adult education and promising innovative methods for service delivery -New requirements for improved planning and evaluation in State adult education programs
1991	National Literacy Act	New legislation was enacted. The National Literacy Act of 1991 (Public Law 102-73), amended several existing programs administered by Federal and State governments under the Adult Education Act, created several new programs, and established the National Institute for Literacy. The act also includes a new broader definition of literacy to include participations in workforce and society and as a means to achieve one's goals. The act assigns responsibility for coordination of all literacy related programs and policy initiatives in the United States Department of Education (USDOE) to the Assistant Secretary for Vocational and Adult Education.
1992	National Adult Literacy Survey (NALS)	First national assessment of adult literacy, which defined and tested three types of literacy: prose, document, and quantitative.

(table continues)

Year	Federal Literacy Legislation	Action
1998	Workforce Investment Act	Workforce Investment Act (Public Law 105-220) is the most current legislation with literacy definition. The Act created the Adult Education and Family Literacy Act (AEFLA) and reformed federal employment, training, adult education, and vocational rehabilitation programs by promoting an integrated system that offers employers, individuals, and communities the opportunity to achieve and sustain economic prosperity through workforce investment and education services for adults, dislocated workers, and youth.
2003	National Assessment of Adult Literacy (NAAL)	National survey that follows up on the adult literacy progress since the 1992 NALS

Note. Most of the foregoing is adapted from Sticht, T. (2002). The rise of the adult education and literacy system in the United States: 1600-2000. In J. P. Comings, B. Garner, and C. Smith (Eds.), *The annual review of adult learning and literacy*, 3, 10-43. San Francisco, CA: Jossey-Bass.

The War on Poverty of the 1960s helped bring ABE to the foreground of the national discussion by pointing to the relationship between literacy and individual work capacity (Sticht, 2002). The Economic Opportunity Act of 1964 included an ABE Program meant to provide adults with the literacy skills necessary to participate in the workforce (Sticht, 2002). The program was administered by the United States Office of Economic Opportunity.

In 1966, with the Economic Opportunity Act up for renewal, the ABE Program was changed to the Adult Education Act, and its administration was placed under the auspices of the United States Office of Education rather than the United States Office of Economic Opportunity (Sticht, 2002). A 1978 amendment to the Adult Education Act

allowed for a competency-based assessment of literacy to be used, rather than one based on grade-level, to accommodate adults who have completed high school but still function at too low a level to participate fully in society (Sticht, 2002).

In the early 1980s, President Reagan launched the National Adult Literacy Initiative, which was followed by the United Nations' declaration of 1990 as the International Literacy Year (Limage, 1999). In 1988, Congress directed the USDOE to conduct a survey of the literacy skills of American adults, those 16 years old and older. Three years later, in 1991, Congress passed the National Literacy Act (NLA) of 1991, the purpose of which was

. . . to enhance the literacy and basic skills of adults, to ensure that all adults in the United States acquire the basic skills necessary to function effectively and achieve the greatest possible opportunity in their work and in their lives, and to strengthen and coordinate adult literacy programs. (Irwin, 1991, p. 2)

The NLA defined literacy as

[a]n individual's ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job, in the family of the individual, and in society, to achieve one's goals, and develop one's knowledge and potential. (Irwin, 1991, p. 3)

The NLA of 1991 was the culmination of policy activity in the late 1980s, and subsequent enrollment in adult basic skills education increased.

Using the NLA definition of literacy, in 1992, the USDOE conducted the National Adult Literacy Survey (NALS). The USDOE published the survey results in a report titled, the *National Adult Literacy Survey* (NALS). The NALS report was released in

1992 and became the first assessment of the literacy skills of the United States adult population as a whole (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993).

The NALS gave a detailed picture of literacy skills of adults in America in the early 1990s. The results of this survey revealed a high prevalence of illiteracy in the United States (Kirsch et al., 1993). According to Kirsch et al. (1993), the NALS survey remains the most comprehensive, statistically reliable source on literacy in the United States. Since then, awareness about illiteracy, thought previously to be a problem mainly confined to developing countries, has taken on new meaning. Rather than classifying individuals as either “literate” or “illiterate,” NALS categorized literacy into three general kinds of tasks:

1. Prose literacy tasks, which measure reading comprehension and the ability to extract themes from newspapers, magazines, poems, and books.
2. Document literacy tasks, which assess the ability of readers to interpret documents such as job applications, insurance reports, consent forms, and transportation schedules, maps, and graphs.
3. Quantitative literacy tasks, which assess the ability to work with numerical information embedded in written material such as computing restaurant menu bills, figuring out taxes, interpreting paycheck stubs, or calculating calories on a nutrition checklist. (Kirsch et al., 1993)

Although no precise cut-off point defines the difference between literacy and illiteracy, these literacy scales were devised to capture and reflect the realities of everyday adult life and work (rather than determining a single, artificial cut-off point or ranking adults with grade level equivalencies). According to the National Reporting

System for Adult Education (NRS; USDOE, 2012b) the commonly accepted working definition of what is meant to be literate is the ability to write and to read, understand, and interpret information written at the eighth-grade level or above. The NRS further explained that at the other end of the spectrum, an illiterate is defined as someone who is unable to read or write at all or whose reading and writing skills are at the fourth-grade level or below. The NRS also indicated that low literacy, termed marginally literate or marginally illiterate, refers to the ability of adults to read, write, and comprehend information between the fifth- and eighth-grade levels of difficulty. Adults with low literacy have trouble using commonly printed and written information to meet their everyday needs such as reading a television schedule, taking a telephone message, or filling out a relatively simple application form (Dubin & Kuhlman, 1992).

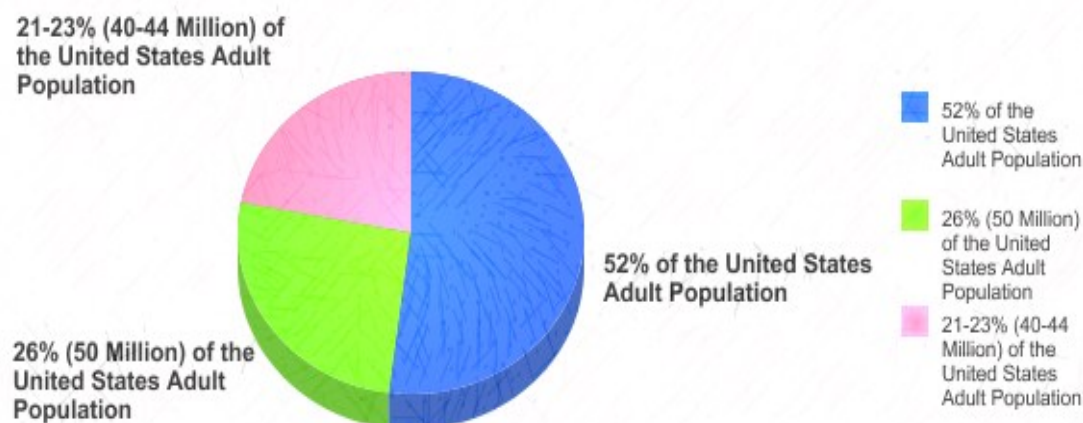
Functional illiteracy means that adults lack the fundamental reading, writing, and comprehension skills that are needed to operate effectively in today's society. Functional illiteracy is a relatively new term. Adults who are functionally illiterate have very limited competency to perform the tasks of everyday life (Kirsch et al., 1993). They do not read well enough to understand and interpret what they have read or use the information as it was intended (Dubin & Kuhlman, 1992). For example, Freebody and Luke (2003) asserted that someone who is functionally illiterate may be able to read the simple words on a label of a can of soup that directs them to "pour soup into pan. Add one can of water. Heat until hot" (p. 56). However, they cannot comprehend the meaning and sequence of the words to carry through with these directions.

The NRS scale was broken into five literacy levels, with Level 1 the lowest (very limited skills in processing information), and Level 5 the highest (advanced skills in

coping with complex materials). These literacy scales profile the types of materials and demands individuals encounter in their daily lives; for example, interpreting instructions from a warranty, reading maps, balancing a checkbook, or figuring out a tip (Dubin & Kuhlman, 1992). While there are no exact grade equivalents, Level 1 literacy is generally defined as less than fifth-grade reading and comprehension skills, and Level 2 is generally defined as fifth through seventh grades reading and comprehension skills (Kaestle et al., 2001). The authors posited that although many Level 1 adults could perform tasks involving simple texts and documents, all adults scoring at Level 1 displayed difficulty using certain reading, writing, and computational skills considered necessary for functioning in everyday life. Almost all Level 1 adults could read a little, but not well enough to fill out an application, read a food label, or read a simple story to a child (Kaestle et al., 2001). While most of these adults were not considered illiterate, they did not have the full range of economic, social, and personal options that are open to Americans with higher levels of literacy skills.

The 1992 NALS, considered to be a highly accurate and detailed profile on the condition of English language literacy in the United States, revealed surprising statistics. NALS interviewed and collected data from a representative sample of 26,000 individuals, age 16 and older. Based on the finding from an assessment of literacy skills in three areas (prose, document, and quantitative), NALS used the five literacy abilities categorized into five levels, by the NRS, with Level 1 being the lowest and Level 5 being the highest. NALS found that about 21-23% (approximately 40-44 million of the 191 million adults in the country at that time), scored in the lowest level of the three skill areas; thus, they were considered to be functionally illiterate. Another 25-28%, or

approximately 50 million adults, scored in the Level 2 category. That is, they were considered to have low literacy skills. Thus, the number of illiterate and low-literate adults in the United States conservatively was estimated to be approximately 90-94 million in total (see Figure 1).



*Figure 1. Literacy levels in the United States. Adapted from *Adult literacy in America: A first look at the results of the National Adult Literacy Survey* by I. Kirsch, A. Jungeblut, L. Jenkins, and A. Kolstad, 1993. Copyright 1993 by National Center for Education Statistics, United States Department of Education [USDOE], Government Printing Office.*

Figure 1 represents about one half of the adult population in the United States who has deficiencies in reading, writing, and mathematics skills. The NALS report found that those adults with poor literacy skills (Levels 1 and 2) were disproportionately more often from minority populations, from lower socioeconomic groups. The NALS found that 40 to 44 million Americans, or approximately one quarter of the United States population, are functionally illiterate, and another 50 million have marginal literacy

skills, which means that almost half of the adult population has deficiencies in reading or computational skills (Kaestle et al., 2001). According to Kaestle et al. (2001), the NALS report also found that low literacy skills were closely connected to economic, social, and personal issues that include the following:

1. Poverty: Forty-three percent of adults with Level 1 literacy skills were living in poverty, compared to 4% of those at Level 5.
2. Welfare: The likelihood of being on welfare went up as literacy skills went down. Seventy-five percent of food stamp recipients had Level 1 or Level 2 literacy skills.
3. Income: Adults with Level 1 literacy skills earned a median income that was approximately 35% of those with Level 5 literacy skills.
4. Employment status: Adults with Level 1 literacy skills worked an average of 19 weeks per year, compared to 44 weeks per year for those with Level 5 literacy skills.
5. Crime: Seventy percent of individuals in penal institutions had Level 1 or Level 2 illiteracy skills.

The NALS report provided evidence that a large portion of the American adult population lacked adequate literacy skills and intensified the debate over how this problem should be addressed (Kaestle et al., 2001). Kaestle et al. (2001) noted that an agreement was widespread that as a nation we must respond to the literacy challenge, not only to preserve our economic viability but also to ensure that every individual has a full range of opportunities for personal fulfillment and participation in society.

In 2003, the National Assessment of Adult Literacy (NAAL), building on the NALS of 10 years earlier, conducted a follow-up survey and was the first study to identify the literacy of adults in the United States in the 21st Century. Together, these two nationwide surveys provide the most comprehensive and comparable data and indicators of adult literacy in the United States (Sticht, 2002). The 2003 NAAL report built on the previous NALS findings. New, more sensitive survey instruments were designed to enhance measurement of the literacy abilities of the least-literate adults, the results of which showed that the average quantitative English language literacy scores of adults increased 8 points between 1992 and 2003, even though average prose and document literacy did not differ significantly from 1992 (Kutner et al., 2007). However, the researchers did explain that estimates from the 2003 NAAL report indicated that compelling numbers of Americans do face some type of literacy difficulty.

Data on adult literacy levels in the United States were last collected by the National Center for Education Statistics in 2003 using the National Assessment of Adult Literacy (NAAL) (Kutner et al., 2007). The NAAL was designed to measure functional English literacy. The assessment measures how adults use printed and written information to adequately function at home, in the workplace, and in the community. The assessment questions administered in the survey were designed to measure three types of literacy: prose, document, and quantitative. These measures determine a person's ability to read and understand books, comprehend medicine labels, and balance a checkbook (Kutner et al., 2007). The NAAL 2003 reported results on the same three literacy scales as used by NALS 1992 so that comparison data would be possible. The literacy scale used in the 2003 NAAL report is depicted in Table 2.

Table 2

*Literacy Scale Used in the 2003 NAAL Report***Type of Literacy**

Prose Literacy: the knowledge and skills needed to perform prose tasks, (i.e., to search, comprehend, and use continuous texts). Examples include editorials, news stories, brochures, and instructional materials.

Document Literacy: the knowledge and skills needed to perform document tasks, (i.e., to search, comprehend, and use non-continuous texts in various formats). Examples include job applications, payroll forms, transportation schedules, maps, tables, and drug or food labels.

Quantitative Literacy: the knowledge and skills required to perform quantitative tasks, (i.e., to identify and perform computations, either alone or sequentially, using numbers embedded in printed materials). Examples include balancing a checkbook, figuring out a tip, completing an order form or determining the amount.

Note. Adapted from *Literacy in everyday life: Results from the 2003 National Assessment of Adult Literacy (NCES 2007-480)* by M. Kutner, E. Greenberg, Y. Yin, B. Boyle, Y. Hsu, and E. Dunleavy, 2007. Copyright 2008 by U.S. Department of Education, Washington, DC: National Center for Education Statistics.

The 2003 NAAL report results were reported in terms of scale scores (on a 500-point scale) and then used scores on the three scales to place individuals in one of four literacy levels: below basic, basic, intermediate, and proficient. Table 3 displays the Prose Literacy levels, performance description for each Prose Literacy level, and the percentage of adults in the United States at each literacy level.

Table 3

Percentage of Adults in the United States in Each Prose Literacy Level from the 2003 NAAL Report

Prose Literacy Levels	Performance Descriptions	Percentage of U.S. Adults
Below Basic	Can perform no more than the most simple and concrete literacy skills.	14%
Basic	Can perform simple and everyday literacy activities.	29%
Intermediate	Can perform moderately challenging literacy activities.	44%
Proficient	Can perform complex and challenging literacy activities.	13%

Note. Adapted from *Literacy in everyday life: Results from the 2003 National Assessment of Adult Literacy (NCES 2007–480)* by M. Kutner, E. Greenberg, Y. Yin, B. Boyle, Y. Hsu, and E. Dunleavy, 2007. Copyright 2008 by U.S. Department of Education, Washington, DC: National Center for Education Statistics.

Table 3 presents the findings from the 2003 NAAL, which revealed the following percentages and total numbers: below basic (14% or 30 million), basic (29% or 63 million), intermediate (44% or 95 million), and proficient (13% or 28 million). Of the overall 216 million adults in the United States population in 2003, 43% (93 million) adults fell into the lowest two categories (Kutner et al., 2007). According to Kutner et al. (2007), findings from the 2003 NAAL report showed:

1. Several population groups were overrepresented in the below basic level. These groups include individuals who (a) have not completed high school; (b) did not speak English when they entered high school; (c) are Black

adults, Hispanic adults, or over the age of 65; or (d) who have multiple disabilities.

2. Average scores for prose literacy and document literacy did not change significantly between 1992 and 2003. Average scores for quantitative literacy showed a statistically significant, though not a dramatic, increase from 1992 to 2003.
3. Black adults were the only group to show improved scores from 1992 to 2003 in all three literacy categories.
4. Adults age 65 and over had the lowest literacy scores of any age group.
5. Literacy scores increased among adults age 25 to 39 and age 50 and older. Other age groups showed no statistical change from 1992 to 2003.

In addition, the 2003 NAAL report described how adults in the United States, age 16 and older, at varying literacy levels use written information in their everyday lives. Specifically, this report described the relationship between literacy and a number of self-reported background characteristics, including education, employment, earnings, job training, family literacy practices, civics activities, and computer usage. It examined the relationship between educational attainment and literacy and reported changes between 1992 and 2003. In addition, the relationship between literacy and adult education, including basic skills classes, English as a second language classes, and information technology certification were reported. The findings revealed the relationship between literacy and employment status, occupation, weekly wage or salary, job training, and participation in public assistance programs. Moreover, the report examined how parents, grandparents, and guardians at different literacy levels interact with the children living in

their homes around issues related to literacy and school. Finally, the report revealed how adults at different literacy levels participate in government and community affairs by voting, staying informed, and volunteering.

The data from the 1992 NALS and the 2003 NAAL reports are still generally accepted, for indirect measures such as poverty levels and low high school graduation rates, which are strongly associated with poor literacy skills, and suggest the persistence of low literacy levels (Kutner et al., 2007). Thus, according to the findings of 1992 NALS and 2003 NAAL reports, about 4 to 5 out of every 10 adults in the United States lack the basic reading and comprehension skills to perform simple, everyday literacy tasks (Kirsch et al., 1993; Kutner et al., 2007). The mean reading level of adults in the United States is at or below the eighth grade and many adults read two or four grades below their reported level of formal education achieved. In other words, millions of adults are challenged by the demands of common, day-to-day activities (Kutner et al., 2007). For example, one needs to be able to read at the sixth-grade level to understand a driver's license manual, at the eighth-grade level to follow directions on a frozen dinner package, and at the tenth-grade level to read instructions on a bottle of aspirin (Kutner et al., 2007). The literacy problem was so widespread a few decades ago that the United States Department of Transportation, in an effort to reduce traffic accidents, increasingly replaced some conventional printed road signs with pictorial road signs using symbols rather than words to convey their message (Easterby & Zwaga, 1984). Symbols provide instant communication with roadway users and overcome language and illiteracy barriers.

Literacy is measured along a spectrum of proficiency levels (Sticht, 2002). Sticht (2002) explained that the USDOE divided the adult literacy skills of reading, writing, and

mathematics into six levels of ABE, as a part of the NRS, which describes terms related to literacy that are not part of the current working definition of literacy. According to Sticht (2002), to measure educational gain, the NRS established a hierarchy of six educational functioning levels, from beginning literacy through high school level completion. The six levels of ABE educational functioning levels include

1. Beginning Literacy
2. Beginning Basic Education
3. Low Intermediate Basic Education
4. High Intermediate Basic Education
5. Low Adult Secondary Education
6. High Adult Secondary Education. (USDOE, 2012b, p. 24)

The NRS requires programs to use standardized assessments to evaluate students upon entry into the program and after a set number of instructional hours to document and report progress and completion of educational functioning levels (USDOE, 2012b). Included for each level is a corresponding set of benchmarks on commonly used standardized assessments, such as the Tests of Adult Basic Education (TABE), as examples of how students functioning at each level would perform on these tests. This study explored the factors that motivate adult students to participate in ABE program classes for NRS levels 1 through 6.

Meeting the Challenge of Adult Illiteracy

Literate adults should not only be able to write and read written materials, but they should also be able to understand and analyze written and spoken words and to use language adequately for communication purposes. While a small percentage of adults in

the United States do possess strong literacy skills, a disturbingly larger percentage do not. The passage of the Adult Education Act of 1966 and its subsequent amendments represented the first major funding effort of the federal government to meet the challenge to reduce adult illiteracy (Grede & Friedlander, 1981). The act authorized 90% federal funding with states matching 10% to encourage states to develop adult literacy education programs (Ellis, 1984). Funded under the Adult Education Act, ABE is the largest single program designed to reduce adult illiteracy.

Delker (1984) emphasized that the original authorization of ABE gave much discretion to state and local agencies and clearly required states to bear the responsibility of developing adult literacy education programs. The 1978 amendments to the Adult Education Act contained several significant new policies. These amendments required that services to adults be expanded throughout the public and private sector, including community colleges, instead of relying so heavily on the public schools as had been done previously.

The public perception of the illiterate as well as of the extent of the literacy problem in America flow not from research or from informed practitioners (Quigley, 1997). The media characterize illiteracy as a crippling limitation, a barrier to individual and social advancement, and as a problem to be fixed. However, there is substantial research to suggest that literacy is very complex. Major surveys of adult literacy skills have adopted fairly broad definitions of literacy. The results of the 1992 NALS suggested that while functional literacy proficiency is a real challenge for many adults from all walks of life, a complex mix of variables influence literacy proficiency, which leads to the conclusion that no simple profile of illiteracy in America exists. One

explanation for the documented large number of adults identified as low literate or functionally illiterate is the growing emphasis on educational credentialing for the demands of family, employment, and civic life (Comings, Reder, & Sum, 2001). In turn, this rising demand for literacy proficiency in adult life has led to an increased emphasis on the need for higher literacy skills. The focus of this study is the adult literacy education system funded by the United States Department of Education (USDOE) under the auspices of national legislation.

One benchmark for meeting the challenge to reduce illiteracy is to encourage adults to participate in ABE classes. However, simply offering ABE classes is not enough to motivate people to participate. The success of ABE classes depends heavily on determining factors that influence the decision of adults to participate. Therefore, it is necessary to understand the reasons that motivate adults to participate in ABE classes.

Data from this study may generate knowledge useful in helping adult educators identify factors that influence adults to enroll in ABE programs. The intent of this researcher is to move ABE classes from the margins to the mainstream in the discussion to serve adult students and provide motivational support for adults to participate in ABE classes.

Statement of the Problem

The goals of the AEFLA legislation are broad, with literacy improvement being only one possible focus of teaching in ABE program classes. Ewell (1984) stated, “If there is one generalization that can be made about the academic community, it is that we place unusual value on acquiring information and using it for social and individual improvement” (p. 4). As the community at large comes to view adult illiteracy as a

fundamental social problem, increasing attention is focused on the federally legislated ABE program. However, little is known about the reasons why adults choose to participate in ABE program classes. Understanding the factors that motivate adults to participate in ABE classes is important for two major reasons. First, the federal legislation guiding ABE programs requires each state to document the needs of learners and to demonstrate how those needs are being met (Kaestle et al., 2001). The basic motivations of adults represent one important indicator of such needs. The motivations expressed by adults may demonstrate the ways in which they hope to change their lives by completing an ABE class, and thus are suggestive of their learning needs. Second, by understanding the motivation of students enrolled in ABE classes, teachers and administrators should be better able to design programs responsive to students' needs. Knowledge of how adults wish to apply developed skills can serve as a solid basis for many decisions leaders need to make about curriculum, teaching methods, and program requirement strategies.

Current Status of the Problem

Carnevale, Smith, and Strohl (2010) projected that, through 2018, nearly two thirds (63%) of all new jobs will require more than a high school diploma; nearly half of those will require some college but less than a bachelor's degree. A large and growing portion of the American workforce lacks critical basic skills and work readiness competencies, posing an acute threat to our nation's economic well-being. The United States faces an alarming challenge that seriously threatens our competitiveness in the world economy.

According to White and McCloskey (2005), the 2003 National Assessment of Adult Literacy (NAAL) captured the breadth of adult literacy in the United States: 93 million adult Americans score at the lower levels of national assessments of functional literacy and are unprepared to enroll in the postsecondary education or job training programs that can prepare them for current and future jobs. Of those 93 million adult Americans, 63 million can only perform simple literacy tasks. At the same time, according to Dohm and Shniper (2007), almost twice as many jobs over the next decade will require a postsecondary credential or college degree, up from 25% today to about 45% over the next decade.

In 2008, the National Commission on Adult Literacy (NCOAL) released its report, *Reach Higher, America: Overcoming Crisis in the U.S. Workforce* (Reach Higher Report), after examining the nation's adult education needs for 2 years. The Reach Higher Report affirmed that the United States is the only highly developed democracy in which young adults are less likely to have completed high school than have those of the previous generation. Already beyond the reach of schools and lacking the adequate education and skills to obtain good paying jobs, US 25- to 34-year-olds are the first generation in United States history to be less educated than their parents, and unless something is done about it, they face the prospect of a lower standard of living. The report posited that over 1 million young adults drop out of high school each year, and more than 12 million adults without a high school credential are in the labor force today. The report further postulated that investing the United States adult workforce will yield huge returns. For example, if the United States can encourage even 4 million high school dropouts to earn a high school diploma by 2020, the net fiscal benefit to federal, state,

and local governments would exceed \$25 billion annually (expressed in 2006 dollars) (Uhalde & Strohl, 2006).

The Reach Higher Report intimated that a well-funded public campaign should be launched to motivate adult learners to enroll in ABE programs and to build public understanding of the value of ABE programs in 21st Century America. The last section of the Reach Higher Report provided compelling data about how better educated and more literate adults benefit in the following areas:

1. Higher rates of employment and better jobs.
2. Substantial increases in personal income and individual economic well-being.
3. Dramatically increased fiscal contributions to government at all levels.
4. Greater success for their children as the educational levels of parents and caregivers rise.
5. Significantly increased voter participation.
6. Higher rates of citizenship for foreign-born immigrants.
7. Enhanced volunteerism and civic engagement.
8. Better health and more effective healthcare. (National Commission on Adult Literacy [NCOAL], 2008, pp. 33-40)

According to the NCOAL (2008), if the projected goals of the Reach Higher Report are met, US adult learners' fiscal contributions to national, state, and local government will more than offset the cost of paying for the buildup of America's new Adult Education and Workforce Skills System. To illustrate with just one measure, the NCOAL (2008) estimated that the net fiscal impact for federal, state, and local

governments from getting 400,000 adults to earn a high school diploma is estimated to be \$2.5 billion a year. If, by 2020, 4 million dropouts earn a high school diploma, the net fiscal contributions would exceed \$25 billion annually. In other words, adults with more literacy skills generate more favorable fiscal results for government at all levels because of their higher rates of employment and annual earnings, higher marriage rates, higher home ownership rates, and lower rates of incarceration.

In *A Background Paper for the New Commission on the Skills of the American Workforce*, Uhalde and Strohl (2006) concluded that inadequate basic skills are a major cause of low wages and stagnant incomes. Americans with low basic skills are far more likely to be trapped in low-wage, dead-end jobs. Uhalde and Strohl advised that jobs requiring more skills tend to pay more, even among those with the same level of educational attainment. Among high school graduates, Uhalde and Strohl suggested that occupations requiring the highest degree of basic skills competency pay on average 50% more than those demanding the least basic skills proficiency. Employers will face new challenges in finding qualified employees as their jobs require higher levels of skills and educational attainment. The connection between skills and unemployment should be a reminder of the importance of investing in basic skill attainment. Uhalde and Strohl reached the same conclusion, stating,

Policy makers and economists strongly agree that a highly educated and skilled workforce is one of the indispensable keys to economic success. . . . Studies confirm that education enhances labor productivity and, hence, economic growth through improvements in worker skills and by upgrading the quality of human capital embodied in workers. (p. 11)

The blue-collar industrial economy that provided good jobs for high school graduates is disappearing. In the new postindustrial knowledge economy, there is a growing consensus about the need to better enable low-skilled adults, including those without high school credentials, to pursue further education and ultimately family-sustaining employment. In a rapidly changing world, it is critically important that adults be adaptable, lifelong learners who know how to access and apply resources to whatever task or obstacle they face. Adults participate in ABE classes for a number of reasons. Thus, it is imperative to understand the reasons adults participate in these classes. If the reasons for adult participation in ABE classes are understood, individualized instructional interventions and needed support services can be designed to reduce the personal barriers adults face in regards to retention and progress and more widespread and consistent involvement in ABE classes can be encouraged.

Theory and Action Related to the Problem

What motivates people to participate in adult education? One can start to look at participation, learning, and application as a logical triangle. Unless adults participate, they cannot learn, and without learning there is no possibility to apply what they have learned to their life or workplace. Beginning with participation and using the motivational factors as lenses for understanding, guidance can be gained for creating learning environments for ABE classes that meet the needs of students. One of the differences between children's education and adult education is that participation in the courses available is a voluntary activity (Cross, 1981; Darkenwald & Merriam, 1982). It is understandable that researchers have devoted time and effort to understanding the various dimensions of adult participation in education. As a consequence, participation is

one of the most highly studied aspects of adult education (Beder & Valentine, 1990; Merriam, Caffarella, & Baumgartner, 2007). Theories of participation in adult education tend to focus on external societal pressures upon the individual, internal personality characteristics, or the effect of goal setting upon individual motivation. The complex nature of adult participation has been confirmed by the studies of many researchers (Creed, 2001; Kremer, 2006; Merriam et al., 2007). There is no widely accepted model that explains the reason or reasons adults choose to participate in education (Boshier, 1971; Clark, Dobbins, & Ladd, 1993; Cookson, 1986; Maurer, Weiss, & Barbeite, 2003).

A goal of this study is to use a theoretical framework based on attitudinal research to assess the motivational orientations of ABE students. Thus, intentions would be expected to influence motivational orientation to the extent that the adult is motivated to try to succeed. The underlying foundation of intention provides the detailed descriptions needed to understand the Theory of Planned Behavior (TPB) (Ajzen, 1991). As a framework, the TPB was ascertained to be an appropriate means to learn about the unique factors that induce a person to engage in the behavior of interest. The aim of this study is not to predict intentions but to utilize a theoretical framework to elicit a beginning understanding of the motivational orientation of ABE students. Consequently, the TPB is used in this study to understand the motivational orientation of ABE students, which is a perspective from which to view the participation of adults in education.

In the field of adult education, studies have identified the motivational orientations of adult students in academic settings (Boshier, 1991; Gordon, Olson, & Hamsher, 1993; Houle, 1961; Johnstone & Rivera, 1965). Motivational orientations are defined as the student's reasons for participation in the educational program. If

motivational orientation is the force which impels participation in adult education, it is important to be able to understand the factors that influence it. Henry and Basile (1994) stated that understanding the reasons for participation is especially important for “adult educators who are interested in developing a program to meet public demands and increase participation in their programs” (p. 64). Therefore, program administrators, aware of these motivations, can adjust the curriculum accordingly. Fujita-Stark (1996) commented that “effective and responsive adult education programming requires a clear understanding of the characteristics, needs, and aspirations of program participants” (p. 29). In summary, Boshier (1971) stated the importance of studying motivational orientations best:

The nature of the individual learner and his reasons for participation is an important starting point for any research on adult education. An understanding of why adult education students participate would facilitate the growth of theory and models to explain participation, throw light on the conceptual framework that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults. (p. 3)

This concept of motivational orientation was originally suggested by Cyril Houle (1961) in his book, *The Inquiring Mind*, reporting his study of 22 subjects. Houle (1961) interviewed adult learning participants and identified three categories based on their reasons for participating in education: (a) goal-oriented learners who engage in educational activities in order to reach some end goal, (b) activity-oriented learners who participate for social reasons, and (c) learning-oriented learners, who learn for the sake of learning. Houle conceptualized motivation as an inborn disposition or inclination toward

learning. Houle's tripartite typology is a contribution to adult education research, for it facilitates communication and highlights problems for investigations with an easily understandable yet comprehensive explanatory model of the complicated phenomenon of adult educational motivations.

Houle's (1961) tripartite typology served as the theoretical basis for Boshier (1971), who has made important contributions to another strand of research on adult motivational orientations. Boshier's work diverged from Houle's in that the former examined the various reasons or motives for participation, instead of classifying the learners themselves. Boshier conducted several large-scale quantitative studies to test Houle's typology in different contexts between the 2 decades from 1971 to 1991 (Boshier, 1971, 1991; Boshier & Collins, 1983, 1985). Boshier's (1971) theory stated that "participants in adult education programs are goal-oriented, and are motivated either by external or internal influences" (p. 22). It is important to think of participants in adult basic skills classes in this perspective because of the need of adult education program administrators to design programs to meet the needs, or goals, of their participants.

After further studies and inter-correlational analysis, Boshier (1991) refined the EPS and developed it into an alternative version with 42 items (reasons for participation) cast on a 4-point scale of influence called the EPS A-Form. Boshier recommended that the original EPS form be retired. However, both the original EPS and the refined EPS A-Form continue to be used. The widespread use of both versions of the EPS in the United States and abroad has produced a large database providing a rare opportunity for secondary analysis (Boshier, 1991). After Boshier performed factor analysis on the data

from the EPS A-Form, he identified seven motivational orientation factors of adults who choose to participate in adult education:

1. Motivational Orientation of communication improvement—reflects seeking education to improve verbal and written skills, learn a new language, or enhance communication between cultures.
2. Motivational Orientation of social contact—reflects participation in education because students enjoy learning with others, and they want to be part of a group.
3. Motivational Orientation of educational preparation—reflects participation in education to remediate deficiencies in learning or in preparation for a more specialized type of learning.
4. Motivational Orientation of professional advancement—reflects participation in education to strengthen the status of students at their current jobs or to position themselves to advance professionally.
5. Motivational Orientation of family togetherness—reflects participation in education to seek common ground in relationships, to share an activity, or to bridge a generation gap.
6. Motivational Orientation of social stimulation—reflects participation in education to escape from routine, alleviate boredom, or provide a diversion from social problems.
7. Motivational Orientation of cognitive interest—reflects the view of learning as a way of life and the belief in the concept of learning for the sake of learning (Boshier, 1991, p. 162).

This study used Boshier's (1991) Motivational Orientation EPS A-Form to determine the motivational orientation of adult learner participation in ABE classes. In assessing learner motivations to attend ABE classes, the current study offers possibilities for making ABE programs more relevant to people's needs and purposes. Appropriate to this context, using research findings to make the most of these new possibilities is the affirmation needed to further study the problem.

Need for Further Study of the Problem

Adult education in America has a rich history of providing services that assist adults in improving their skills, achieving their educational goals, and transitioning to further education or employment (Sum, Kirsch, & Taggart, 2002). Sum et al. (2002) proposed that within the United States economy, there is growing evidence of a basic skills gap in which many adults lack the basic skills of reading and writing needed for many jobs that pay a family higher than a poverty-sustaining wage. America's economic future, the path to achieving the American dream, and our ability to compete in a global 21st century economy, will depend on providing our citizens with a high quality education that fosters critical thinking, problem solving, and the innovative use of knowledge. President Obama identified education as one of the most important issues facing America. The President has committed to providing every citizen in America with access to a complete and competitive education, from cradle through career. He has set forth an ambitious goal for America to regain its lost ground by producing the highest proportion of college graduates in the world by 2020. This plan will necessitate a concerted focus on ABE programs and dramatic increases in access to, participation in,

and completion of ABE classes. In his first speech to a joint session of the Congress, President Obama (2009) articulated a vision that included both education and training:

In a global economy where the most valuable skill you can sell is your knowledge, a good education is no longer just a pathway to opportunity—it is a prerequisite. . . . Already, we have made a historic investment in education through the economic recovery plan. . . . It is our responsibility as lawmakers and educators to make this system work. But it is the responsibility of every citizen to participate in it. And so tonight, I ask every American to commit to at least one year or more of higher education or career training. This can be a community college or a four-year school; vocational training or an apprenticeship. But whatever the training may be, every American will need to get more than a high school diploma. And dropping out of high school is no longer an option. It's not just quitting on yourself, it's quitting on your country—and this country needs and values the talents of every American. That is why we will provide the support necessary for you to complete college and meet a new goal: by 2020, America will once again have the highest proportion of college graduates in the world. (Obama, 2009, sentence lines 180-203)

President Obama has challenged education providers to support adults in attaining at least 1 year of higher education or career training. Both adult educators and policymakers believe that if President Obama's initiatives are to succeed, the basic skills and work readiness skills of the adult population must be addressed. According to Carnevale and Desrochers (2003), more than 40% of the United States workforce and more than 50% of high school graduates do not possess the basic skills required by the

country's private and public sector companies to succeed in the workplace. Dohm and Shniper (2007) implied that 45% of all new jobs over the next decade will require a college degree or postsecondary credential. Other projections of the demands of business for skilled workers by Carnevale and Desrochers, suggested that the United States economy could experience a simultaneous shortfall of millions of workers with at least some college and a surplus of 3 million high school dropouts. Carnevale and Desrochers also indicated that more than 12 million adults without a high school diploma are in the labor force today, and more than 1 million young adults drop out of high school each year. According to the Organization of Economic Cooperation and Development (OECD) (2012), the United States leads the world in the share of working-age adults who completed high school; the country's advantage is eroding because the United States now ranks only ninth in the world, among 29 member countries of the OECD, in the percentage of young adults ages 25-34 with a high school diploma. The United States has fallen to 16th in the world in the share of certificates and degrees awarded to adults ages 25-34, lagging behind Korea, Canada, Japan, and other nations (OECD, 2012). In addition, the United States suffers from a college attainment gap, as high school graduates from the wealthiest families in the nation are almost certain to continue on to higher education, while just over half of the high school graduates in the poorest quarter of families attend college. And while more than half of college students graduate within 6 years, the completion rate for low-income students is around 25% (OECD, 2012).

The OECD also claimed that the United States is the only high developed democracy in which young adults are less likely to have completed high school than the previous generation. While a high school diploma is an important credential to further

education and training, it is no longer enough on its own (Carnevale et al., 2010).

According to the 2003 NAAL, 30 million adult Americans score at below basic literacy level and another 63 million adults can only perform simple literacy tasks. One study, *Findings from Education and the Economy: An Indicators Report*, found that workers with the lowest literacy levels (NALS Level 1 of 5) in quantitative literacy have an unemployment rate of nearly 20%. Those workers at NALS Level 2 of 5 in quantitative literacy have an unemployment rate of 12% (USDOE, 1999).

Although the academic achievement of students in the United States has been improving in recent years, students in the United States still tend to lag behind students in other countries with respect to some measures of achievement (Carnevale et al., 2010). In particular, the mathematics and science scores of United States students, especially older students, are lower than those of their counterparts in other industrialized countries (OECD, 2012). Students in the United States do, however, perform relatively well on reading tests. Still, adults in the United States may not be as skilled in some areas as their counterparts in other countries. Compared with other countries that have tested literacy, the United States has a higher concentration of adults who score at the lowest literacy levels.

ABE programs are stepping up service delivery to meet the literacy, basic skills, and work readiness skills of the 21st century, as proposed by President Obama's initiatives. The ABE must play a new role in today's economy and create a comprehensive system of learning for adults that works for the current context. Today, far too few adults are enrolled in ABE programs, and of those who are enrolled, few ever make it through the progressive levels of the system and on to the postsecondary

education and training they need to have more employment options. ABE programs can serve as a catalyst to adapt services and create collaborative agreements to meet the changing needs of adults who are unemployed, underemployed, or undereducated. ABE administrators and policymakers have accepted President Obama's challenge. They are navigating the system of services to enable a larger portion of those 90 million adults with limited reading, writing, and mathematics skills to improve their skills, complete at least 1 year of postsecondary training, attain an industry-based certification, and obtain a job with a family-sustaining wage. ABE addresses the real life needs of adult students.

Quigley (1997) acknowledged that much about adult learners' motivations and struggles remains hidden, but powerful forces affect their pursuit of ABE learning. To retain ABE students, it is important to know the factors that motivated them to enroll in classes. Quigley suggested that administrators of adult education programs should be proactive in addressing the identified needs, goals, and expectations desired by adult learners. As part of the work to make ABE programs work better for adults, this study used data to better understand and document the factors that motivate adults to participate in ABE classes, and help build awareness and support to foster improvements.

In 2008, the National Commission on Adult Literacy released a report entitled *Reach Higher, America*. It called for bold new action to address the fact that the United States is losing its position as a world leader in education. One of the recommendations of *Reach Higher, America* was for Congress to develop and pass a new comprehensive Adult Education and Economic Growth Act (AEEGA) to overhaul and expand adult education and workforce skills training. AEEGA was introduced in the House of Representatives in June 2011 by Rep. Ruben Hinojosa (TX-15). The bill (H.R. 2226)

amended the Workforce Investment Act (WIA) to encourage the use and availability of career pathways for low-skilled adults, strengthen the focus of adult education on postsecondary and career success, increase the number of adult education students receiving marketable postsecondary credentials, and modernize the adult education system to meet the needs of 21st century jobs (Adult Education and Economic Growth Act of 2011, H.R. 2226, Sec. 2).

Although the AEEGA was introduced and shows promise, it has not been passed. According to Strawn (2008), the AEEGA provides a framework for helping adults with lower skills earn credentials that may open doors to family supporting jobs. AEEGA proposed that basic skills are vital in order for many adult program participants to access the career pathway or integrated education and training programs that will strengthen the connection between education and work and lead them to postsecondary education or increased employment opportunities (Strawn, 2008). Workers increasingly need stronger reading, writing, and mathematics skills in order to acquire jobs that provide a family-sustainable wage (Friedman, 2006). Strawn posited that because many adults have low literacy skills, remediation and training in in-demand occupations and industries have to be part of the solution. Jenkins (2006) explained, “In a global economy, communities will thrive or decline based on how well they do to ensure sufficient numbers of high-value jobs and an ample supply of ‘knowledge workers’ to fill them” (p. 4). This study investigated why adult students are motivated to participate in ABE classes. The research results present a profile of the ABE adults, their motivational orientations, and painted a picture of the factors that influence their participation in ABE classes.

Purpose of the Study

The purpose of this study was to understand the factors that motivate adults to participate in an ABE program class offered by a community college in the southeastern part of Wisconsin. To place this study on a sound footing in understanding the motivational orientations behind a student's choice to enroll in ABE classes, the study applies the TPB (Ajzen, 1991) as a guiding framework to examine the relative strength and association of the three determinants (attitude, subjective norm, and general self-efficacy) and motivational orientations of ABE students. In order to identify the factors motivating adult learners to participate in ABE classes a cross-sectional paper and pencil survey, consisting of five data collection questionnaires, with one social-demographic questionnaire and four Likert-type questionnaire scales (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree), with a total of 80 questions, was administered. In the process of investigating the issue of student participation in ABE classes, specific questions were examined in the study to help better understand the phenomenon. Quantitative measures were used to evaluate the results of research data related to the questions. The following research questions guided this study:

Research Question 1

What is the relationship, if any, between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,

- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 2

What is the relationship, if any, between social norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation (as measured by Boshier's, 1991 Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 3

What is the relationship, if any, between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 4

What is the relationship, if any, between the independent variables of gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plan to enroll in another ABE Mathematics class, plans to enroll in another ABE Reading classes, plans to enroll in another ABE Writing class, how many ABE Mathematics classes were taken previously, how many ABE Reading classes were taken previously, and how many ABE Writing classes were taken previously, and the individual antecedents, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective

norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Approach of the Study

The overall objective of this study was to investigate the relational application of the TPB (Ajzen, 1991) determinants (attitude, subjective norm, and general self-efficacy) to the motivational orientation of adult students enrolled in ABE classes. Based on the modified application of the TPB in this study, it was hypothesized that adult students' motivational orientation is influenced by three major determinants: a favorable or unfavorable evaluation of the ABE class (attitude toward the behavior), perceived social pressure to perform or not enroll in ABE classes (subjective norm), and general self-efficacy regarding the perceived ease or difficulty of attending ABE classes. Thus, the present study was designed as a quantitative, nonexperimental, descriptive, correlational,

and cross-sectional analysis employing a survey questionnaire to investigate the relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale, subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form; of adults enrolled in ABE classes.

The chosen methodology for this research study was a quantitative survey design, which involves acquiring information about one or more groups of people, and then collecting and analyzing the results (Leedy & Ormrod, 2010). This study used a descriptive research methodology. Descriptive survey research collects data from a sample population at one point in time (Leedy & Ormrod, 2010). According to Neuman (2006), this type of research is the most common and widely-used technique in social science research. Descriptive research allows generalizability from a smaller population study group to a larger group. However, descriptive research does not allow conclusions to be drawn from the data, only inferences about a particular population to be determined from the participant's answers to the survey questionnaire (Leedy & Ormrod, 2010). Accordingly, quantitative descriptive studies utilizing questionnaires are self-reporting;

characterize people's behaviors, attitudes, and opinions; and quantify this data through the use of a rating scale. This descriptive study is helpful in revealing patterns and connections that may otherwise have gone undetected. The results of the data collected were summarized through parametric and nonparametric statistical analysis and displayed using tables (Mertens, 2010).

The population of interest in this study had three common characteristics: (a) they were adults; (b) they were enrolled in ABE classes at a public, coeducational, 2-year community college located in southeastern Wisconsin; and (c) the college was one in a statewide network of 16 community colleges operating under the auspices of the Wisconsin Technical College System. After review of studies on factors determining motivational orientations of adult learners by Boshier (1991), the researcher developed an 80-question survey instrument. Permission was obtained from Boshier to include the 42 items from his Motivational Orientation EPS A-Form in the 80-question survey instrument. The basic assumption underlying the development of the survey instrument was that adult learner's participation in ABE classes have motivational orientations which can be measured with a considerable degree of accuracy. The five data collection questionnaires that were used in this survey instrument included

1. Thirteen-item Sociodemographic Questionnaire (created by researcher),
2. Nine-item Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (Blunt & Yang, 2002),
3. Four-item Subjective Norm Direct Measure [SNDM] Scale (Davis, Ajzen, Saunders, & Williams, 2002),

4. Twelve-item General Self-Efficacy [GSE] Scale (Bosscher & Smit, 1998),
and
5. Forty-two-item Education Participation Scale (Motivational Orientation
EPS A-Form) (Boshier, 1991).

Preliminary copies of the sociodemographic portion of the survey and the EPS were distributed to the dissertation chair for review. Research participants were asked to complete the surveys. The participants were informed of the voluntary nature and confidentiality of their survey responses. For purposes of this study, the convenience nonprobability sample for this study was ABE students enrolled in a public, coeducational, 2-year community college located in southeastern Wisconsin. The data collection occurred during the Fall 2012 semester starting on August 23, 2012 and ending September 27, 2012.

Significance of the Study

This study was significant for three reasons.

First, the study adds to the theoretical understanding regarding the factors that influence an adult's decision to participate in ABE classes by learning more about motivational factors that influence participation.

Second, the study assists adult educators in providing a learning environment congruent with the motivational factors that influence participation.

Third, the study further investigates the reliability and validity of Boshier's (1991) Motivational Orientation EPS A-Form as a measure of motivational orientations of adult education participants.

Ong (1982) argued persuasively that knowing how to read and write is treated as if it were an autonomous phenomenon, independent of the context in which it is used. In this view, “writing presents utterance and thought as uninvolved in all else, somehow self-contained, complete” (Ong, 1982, p. 132). Consequently, this concept of literacy assumes that once literacy skills are mastered in the classroom, learners can apply the skills in any reading task, whether that is in the workplace, the home, or any other setting of public and private life (Sparks & Peterson, 2000). Literacy is more than just being able to code and decode text—it is the ability to comprehend, interpret, analyze, respond, and interact within the variety of complex situations in which adults encounter various kinds of information. Each situation—school, work, civic, and family—requires a different kind of literacy competency (Sticht & Armstrong, 1996). In any particular context, then, literacy is for the purpose of performing some accepted social role. The key question in this discussion is, what factors motivate adults to participate in ABE classes? This question is addressed most directly in crafting ABE and adult literacy program initiatives.

For a society as economically and technologically advanced as the United States, it might seem implausible that many adults are in need of literacy education. As D’Amico (2004) reported, people of color—Hispanics and African Americans—are overrepresented at the lowest literacy proficiency levels. D’Amico (2004) inferred that this situation is unlikely to change unless more is understood regarding the factors that motivate adults to participate in ABE classes. Additional significance of the study is to provide a learning opportunity to strengthen the scope of ABE programs that expand opportunities for adults who are unemployed, underemployed, or undereducated to acquire the skills necessary to participate in the economic, civic, and political life of the

nation. Further significance of the study is in broadening the focus of ABE programs in ways that are valued by and beneficial to adult students. Insights gained from this study will be offered to teachers providing direct services to these students, policymakers striving to enhance systemic delivery and accountability mechanisms, and administrators attempting to account for adult learners' participation in ABE classes.

Uniqueness and Compatibility of the Research

What is known about adult students who enroll in ABE programs is that they have their own goals for learning, which may or may not fall within those targeted by policy (Demetrian, 2005). ABE has long been viewed by many educators and policymakers as a tool for addressing social and economic problems. Now, in a context of global economic restructuring, changes in work and employment, and the largest immigration to the United States since the early 1900s, ABE must demonstrate its success in terms of student learning outcomes. In short, ABE is facing demands to be accountable for student performance, participation, retention, and persistence. At the core of accountability lies the concept of what literacy means. That concept changes over time, and there is now substantial literature on historical changes in the concept of literacy (e.g., Cook, 1977; Stedman & Kaestle, 1987).

Adults reported seeking more education to become a certain type of worker, a different sort of parent, and a different kind of person within their communities (Beder & Valentine, 1990; Bingman, Ebert, & Bell, 2000; Comings et al., 2001; Fingeret & Drennon, 1997). Lytle (1991)

argue[d] for the systematic study, over time, of what counts as literacy to different groups and individuals within societies, of the varied literacy events or activities

in which they participate, of adults' intentions, and of their knowledge of specific uses, functions, and forms of literacy. (p. 116)

Belzer (1998) echoed this call, asserting,

If we are to assist learners in their literacy development, we need to explore with far greater complexity and description the ways in which they use (and hope to use), interact with, and struggle over literacy in a variety of contexts relevant to their lives. (p. 207)

These initiatives are welcomed and needed, but they are unlikely to have far reaching effects without a better understanding of the factors that influence adults to enroll in ABE programs. This study responds to these initiatives by exploring the factors that motivate adults to participate in ABE classes. Of particular interest, and unique to this study, is the relevance that sociodemographic and motivational orientations may have on influencing student participation in ABE classes.

Contribution to Knowledge, Theory, and Practice

This study did not ignore the perspective of the participants, but through descriptive analyses contributes to the body of knowledge regarding the factors that motivate adults to participate in ABE. Adults learn to read and write because ABE programs teach them to do so, employers demand that they do so, and society expects them to do so. The purpose of this descriptive study was to build upon research that has been conducted with other adult learner populations and to explore the factors that influence their participation in ABE classes.

In 1989, President George H.W. Bush and the nation's governors convened the Education Summit, which led to the adoption of eight National Education Goals

(National Education Goals Panel, 1999), the Goals 2000: Educate America Act (1994) which established the Goals Panel as an independent federal agency and expanded its charge to include educational reform. The National Educational Goals Panel was established to monitor and report annual progress toward accomplishing the National Education Goals at the federal and state levels. The goal that is relevant to adult literacy (Goal 6) is that by the year 2000, “[e]very adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship” (National Education Goals Panel, 1999, p. VI).

The National Institute for Literacy (NIFL) engaged in a joint effort with the National Education Goals Panel to arrive at a functional definition of Goal 6 (adult literacy) that can guide the improvements of literacy services as well as the measurement of success. NIFL asked adult learners across the country to respond to the question: “What skills and knowledge do adults need to be literate, to compete in a global economy and to exercise the rights and responsibilities of citizenship?” The responses from 1500 adult learners were analyzed qualitatively. According to Merrifield (2000), analysis of the responses uncovered four major purposes that adult literacy learners seek in returning to the classroom:

1. Learning for access and orientation ponders the tie to the desire to be physically, psychologically, and socially oriented—“knowing what is going on in the world, understanding institutions that have an impact on one’s life, getting needed information” (Merrifield, 2000, p. 15).

2. Learning for voice is described in terms of not only the skills that are required for communication in both oral and written domains, but also the recognition of having something worthy to communicate, or contributing to social discourse.
3. Learning for independent action highlights learners' desire to be able to accomplish daily tasks on their own in their families, workplaces, and communities.
4. Learning as a bridge to the future reflects their understanding of the world as constantly changing and of their need to learn in ways that will prepare them for these changes. (Merrifield, 2000)

These four purposes for literacy were identified using the framework described in the report from the NIFL entitled *Equipped for the Future: A Customer-Driven Vision for Adult Literacy and Life-Long Learning* (Stein, 2000).

Stein (2000) concluded that these four broad purposes “express the social and cultural meaning or significance” (p. 9) that underlies more concrete goals adults typically articulated as reasons for enrolling in adult education. Together, these purposes work as a potent, empowering force “for individuals engaged in defining themselves as competent actors in the world” (p. 9).

To check on progress in attaining the adult literacy goal, the NALS was developed and administered by the Educational Testing Services (Kirsch et al., 1993). The results indicated that nearly half of America's adult population scored in Levels 1 and 2 of a five-level scoring system, making their participation in the changing workplace problematic. Low NALS scores also correlated with unemployment and dependence on

welfare as well as with other personal and societal problems. NALS is a seminal piece of research that reinforces the notion that the factors that influence students' participation and expressed goals deserve greater attention (Merrifield, 2000; Stein, 2000). Stein (2000) suggested that the NIFL recognized the broadness of Goal 6 and sought to define just what the requisite knowledge and skills might be for adults to compete in a global economy. Suitably, the NIFL researchers decided to begin with the perspectives of those targeted by the goal, adult learners themselves. Adult learners used the opportunity to speak to the larger issues of how literacy affects their lives (Merrifield, 2000). According to Merrifield (2000), the NALS study constitutes one of the best sources we have of adult learners themselves speaking to their purposes for returning to school settings.

Stein (2000) further postulated that the results of the NALS report presented a vision of what adults want literacy programs to prepare them to do. Merrifield (2000) surmised that this vision focuses on key purposes (what adults need to do), in key contexts (the family, the community, and the nation), and key roles (as parent, citizen, and worker). The vision shaped in these adult perspectives constituted a student-driven mandate for change. This researcher proposed to affirm the vision of what adult students want in ABE classes and identify what ABE programs need to do to create and deliver ABE curricula that will motivate adults to participate in ABE classes. Identifying the factors that motivate adults to participate in ABE classes can contribute to the knowledge by providing data regarding the factors that motivate adults to enroll in ABE classes and to stimulate discussion of what adult students want and what we need to do to meet their needs and achieve Goal 6, as defined by the adult students.

Delimitations and Limitations of the Study

There are different types of adult education classes, and each may have a unique student population. Each type of ABE class may have a specific set of characteristics, and each set of adults may have specific needs that influence why they may be motivated to participate in ABE classes. This study focused on low literate adults who participated in ABE reading, writing, and mathematics classes. The study focus was intentional and was intended to contribute to the body of knowledge regarding what motivates low literate adults to participate in ABE Classes. Any interpretation of the results of this study should include an awareness of the following delimitations:

1. The population sample of this study was students enrolled in ABE classes at a community college located in southeastern Wisconsin.
2. The assessment used for the study was Boshier's (1991) Motivational Orientation EPS A-Form.
3. The researcher solicited the population sample of the study by inviting students from ABE reading, writing, and mathematics class rosters to participate in the study. This method of sampling is a convenience population; students self-selected participation in the study, and students chose to respond to the survey; therefore, the sample was not random.
4. The researcher took advantage of modern electronic survey techniques using e-mail to contact the population and distributed the survey over the Internet. These techniques were convenient for the population under study.

Limitations of the Study

The data used in this study were self-reported data from the study participants. As such, that data may have been subjected to bias caused by the structure of the survey instrument, personal filters, and the sincerity of the participants' answers. Additionally, the data were obtained from adults within a single southeastern Wisconsin community college. The conclusions reached from analysis of those data may only be transferable to other community colleges with similar missions and organizational structures. The rate of response to the survey instrument may have limited the statistical analyses that were performed. Any interpretation of the results of this study should include an awareness of the following limitations:

1. The sample for this study was selected from one southeastern Wisconsin community college. Johnstone and Rivera (1965) indicated that different educational institutions attract different types of students. Therefore, efforts at generalizing must make allowances for the fact that the study participants are drawn from a single community college and the study results may not be generalizable.
2. Because programs for ABE differ across regions and states, the study results may not be generalizable across the country.
3. The study sample was not randomly chosen and relied on a stratified sample selected on the basis of course content: in particular, students enrolled in ABE reading, writing, and mathematics classes.

4. This study recognized that self-reporting survey instruments may have inherent biases in assuming that the study participants provided honest responses to the survey instruments.
5. The researcher did not control for the number of hours the participants attended an ABE class. The researcher was interested only in what factors motivated a student to enroll in an ABE class.

Assumptions

The researcher approached this study with several assumptions:

1. The ABE reading, writing, and mathematics students would volunteer to participate in the research.
2. The research participants would cooperate and provide input to elucidate the factors that motivated them to enroll in ABE classes.
3. The responses given by the study participants when completing Boshier's (1991) Motivational Orientation EPS A-Form assessment reflected the true feelings of the participants.
4. The study participants provided honest answers when completing the sociodemographic information.
5. No other variables existed that would have a major influence on the results of Boshier's (1991) Motivational Orientation EPS A-Form assessment and sociodemographic information.
6. The methodology of the study would not adversely affect the findings of the study.

7. All students participating in ABE reading, writing, and mathematics classes had the same opportunities to access learning.
8. The findings from the study would provide insight into the phenomenon of adult participation in ABE reading, writing, and mathematics classes offered at a community college in southeastern Wisconsin.

Timeframe

The present study focused the research lens tighter on factors that motivate adult students to participation in ABE classes with a goal of delineating how these factors can influence ABE programs to create the optimal environment for engaging students. For purposes of this study, the convenience nonprobability sample for this study was ABE students enrolled in a public, coeducational, 2-year community college located in southeastern Wisconsin. The data collection for the study occurred during the Fall 2012 semester, starting on August 23, 2012, and ending September 27, 2012.

Vocabulary of the Study

Adult: Adult means an individual who has attained the age of 16 or is beyond the age of compulsory school attendance under state or tribal law and not currently enrolled in a formal secondary or postsecondary educational program (USDOE, 2012a).

Adult status: The Workforce Investment Act (WIA) defines adults as those eligible to receive services under Title II of the Adult and Family Literacy Act, Section 203: Definitions. Adults who receive these adult basic and continuing education services must be 16 years of age and not enrolled or required to be enrolled in secondary school under state law (United States Department of Labor, 2001).

Adult Basic Education (ABE): Adult Basic Education (ABE) is the generic name used to denote the provision of activities and programs for adults who have not completed elementary or high school education. Necessarily; therefore, it includes basic literacy and functional literacy skills designed for adults who lack competence in reading, writing, speaking, problem solving, numeracy, or computation at a level necessary to function in society, on a job, or in the family (USDOE, 2012a).

The U.S. Department of Education defines adult basic education as instruction designed for an adult who

1. Has minimal competence in reading, writing, and computation;
2. Is not sufficiently competent to speak, read, or write the English language sufficiently to allow employment commensurate with the adult's real ability;
3. Is not sufficiently competent to meet the educational requirements of adult life in the United States; or
4. If grade level measures are used, adult basic education would include grades 0 through 8.9. (USDOE, 2012a, p. 120)

ABE refers to students aged 16 and older who are no longer being served in a secondary education program and have not achieved an equivalent level of education in basic literacy–reading, writing, and mathematics; or are unable to speak, read, or write the English language (United States Department of Labor, 2001).

Adult Education: Adult education means courses, services, or instruction below the college level for adults who

1. Lack sufficient mastery of basic educational skills to enable them to function effectively in society, or

2. Do not have a certificate of graduation from a school providing secondary education and have not achieved a GED. (USDOE, 2012a)

Adult Basic Education Program: ABE programs provide courses, services, or instruction below the postsecondary level for students who have attained 16 years of age and older, who lack sufficient mastery of basic educational skills to enable the individuals to function effectively in society, or are striving to improve basic skills in reading, writing, and arithmetic, or are unable to speak, read, or write the English language. These courses are not intended to be part of a program leading to a high school credential or its recognized equivalent, nor are they part of any academic, occupational, or vocational program at the postsecondary level (United States Department of Labor, 2001).

Access: Not only the first time, but any time an adult can enter or make use of a non-formal or formal educational program in an institution such as college or the workplace (Merriam et al., 2007).

Community Colleges: Also known as “the people’s colleges,” community colleges are regionally accredited and award the associate degree in arts or the associate degree in science as their highest credential (Pierce, 2000). Although all 2-year colleges are centers of educational opportunity, they also vary. Each community college is a distinct educational institution, loosely linked to other community colleges by the shared goals of open access and service. Open admissions and the tradition of charging low tuition are among the practices they have in common (Pierce, 2000). These colleges are sometimes referred to as junior colleges or technical colleges. According to Pierce (2000), community colleges should be the centerpiece institutions of the communities

they serve. To achieve this end, community colleges need to be as politically and functionally strong as possible.

English as a Second Language (ESL): Learners in ABE programs who attend classes to learn English have traditionally been identified as ESL learners. ESL learners cover a very broad spectrum of skills from preliterate adults not literate in any language to those with advanced degrees who speak little or no English (Orem, 2005).

Family Sustaining Wage: A Family Sustaining Wage is the minimum income necessary for a worker to meet basic needs. These needs include shelter (housing) and other incidentals such as clothing and nutrition. Glickman (1997) defined a living wage as one that has “the ability to support families, to maintain self-respect, and to have both the means and the leisure to participate in the civic life of the nation” (p. 66). According to the Economic Policy Institute (EPI), to calculate a family sustaining wage a full-time worker’s income must be at least 60 % of the median national household income (Schmitt, 2005).

The median household income in 2011 was \$50,054 (United States Census Bureau, 2011), and 60% of this income is \$30,032. An hourly wage of \$14.438 an hour, times 2,080 hours worked a year yields \$30,031 in annual income (Researcher’s analysis of data from the United States Census Bureau, 2011). Because this wage standard is a percentage of the median household income, it automatically tracks broad changes in living standards (Schmitt, 2005).

General Education Diploma, GED: The General Educational Development test (GED) is a high school diploma equivalency exam administered by the American Council on Education (ACE). It consists of five areas: mathematics, science, social studies,

writing, and interpreting literature. Started by the United States military and the American Council on Education in 1942, the GED provided veterans who lacked a high school diploma a chance to obtain an equivalent credential (Chaplin, 1999). By 1952, the GED became available to nonveterans, and was available in all 50 states by 1963 (Tyler, 2005).

Global competitiveness: Thirty democracies in Europe, North America, and the Pacific Rim comprise the Organization for Economic Cooperation and Development (OECD). These countries represent 78% of world gross domestic product (GDP) (Hatzichronoglou, 1996). The OECD provides a policy forum for these countries covering a broad spectrum of areas, including those relevant to trade and the environment. The OECD defines global competitiveness as “. . . the ability of companies, industries, regions, nations, and supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis” (Hatzichronoglou, 1996, p. 24). The European Union (EU) Commission defines global competitiveness as “. . . the ability of an economy to provide its population with high and rising standards of living and a high level of employment for all those willing to work, on a sustainable basis” (EU Commission, 2003, p. 21).

Nations with high levels of productivity will become domestically and globally competitive and have the capacity to exploit existing market opportunities to sustain and expand employment and real income growth in the long term. The imperatives for global competitiveness involve addressing the following issues: macroeconomic policies,

government practices and regulations, the cost of doing business, education, and skills upgrading (EU Commission, 2003; Hatzichronoglou, 1996).

Good Job: A good job is one that pays a wage that would support a family and provides health insurance and retirement benefits (Schmitt, 2005). There are many other job quality characteristics that could go into defining a good job including, but not limited to, paid vacation, paid holidays, paid sick leave, paid family leave, a safe and healthy workplace, and at least some degree of employment security (Schmitt, 2005). But this definition should provide a broadly acceptable minimum standard.

Literacy: The National Literacy Act of 1991, section 3 of Public Law 102-73, defined literacy as “an individual’s ability to read, write, and speak in English, and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one’s goals, and to develop one’s knowledge and potential” (Irwin, 1991, p. 7). The 2003 NAAL defined literacy as “the ability to use printed and written information to function in society, to achieve one’s goals, and to develop one’s knowledge and potential” (White & McCloskey, 2005, p. 4). According to White and McCloskey, “NAAL’s task-based definition of literacy implies the ability to meet literacy demands at home, in the workplace, and in the community by performing prose, document, and quantitative tasks” (p. 4). The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defined literacy as

the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals,

develop his or her knowledge and potential and participate fully in community and wider society. (UNESCO, 2009, p. 13)

Because literacy is a plural and dynamic concept, neither of these definitions nor any other definition is the final word. Therefore, the researcher wants to stress that literacy skills and their use are inextricably intertwined. This researcher uses the terms *illiterate* and *illiteracy* to indicate the absence of literacy competence, without implying the pejorative connotations sometimes associated with them.

Limited English Proficiency: The term *limited English proficiency* in WIA means an adult or out-of-school youth who has limited ability in speaking, reading, writing, or understanding the English language, and whose native language is a language other than English; or who lives in a family or community environment where a language other than English is the dominant language (Orem, 2005).

Low-skilled adults: A low-skilled adults refers to the same population eligible for public adult education (ABE/GED) services as defined under Adult Basic Education (ABE).

Motivational orientation: Motivational orientation is the reason why an individual makes the decision to participate in an educational program (Boshier, 1971, 1991).

Participation: The decision to join or enroll in an Adult Basic Education (ABE) program (Comings, 2007).

Poverty: People can be said to be in poverty when they are deprived of income and other resources needed to obtain the conditions of life: the diets, material goods, amenities, standards, and services that enable them to play the roles, meet the obligations,

and participate in the relationships and customs of their society (Laderchi, Saith, & Stewart, 2003).

Summary and Forecast

In that education prepares students to become contributing, productive members of society, ABE education is no different than any other education. All of the skills deemed necessary in the learning standards are applicable to low literate adults. As mentioned previously, low literate adults are in need of the same educational opportunities afforded to other literate counterparts: namely, those academic skills that will allow them to be contributing, productive members of society. In programs of ABE, these needs are typically met through ABE class instruction designed for adults who are unable to read, write, and compute sufficiently well to meet the requirements of adult life in the United States. Functioning in today's world is a multi-faceted task. From securing food, clothing, and shelter to being a better parent; from communicating with others to managing multiple roles; low literate adults must cultivate those basic skills that will help them fit back into the community and the world of work.

Both the 1992 NALs conducted under the auspices of the National Center for Educational Statistics of the U.S. Department of Education and the International Adult Literacy Survey provided interesting information about the demographics of adult literacy in the United States, and clearly indicated the need for and importance of adult literacy instruction. However, there is little research that directly addresses the motivational factors that influence adults to attend ABE classes. To that end, the researcher believes that valuable information can be drawn from the research findings on factors that motivate adults to participate in ABE classes. Many adults who are not

literate may simply not have learned or not been adequately taught to read and write. The role of learner motivation, especially the factors that increase learner motivation, require further examination, particularly as they relate to attracting adults to and retaining them in ABE program reading and writing classes.

The 21st century demands more, not less, of adults than did the 20th century. Educators must look for ways to broaden the scope of adult education programs, increasing the range of basic skills adults can learn and making it possible for adults to learn and demonstrate accomplishment of those basic skills. It is incumbent on educators to establish ABE programs in which adults come not just for remediation but for broad expansion of their knowledge and abilities. Synthesis of the aspirations to broaden the national dialogue on reforming adult education and literacy is available in the Equipped for the Future (EFF) initiative. EFF is the National Institute for Literacy's (NIFL) standards-based system reform initiative aimed at improving the quality and outcomes of the adult literacy and lifelong learning delivery system. EFF starts from the recognition that the basic skills adults need as parents, workers, and citizens go beyond the basic academic skills that have traditionally been targeted by adult education programs. NIFL undertook EFF to better understand what we need to do as a nation to meet the challenge posed in the National Education Goal 6 for adult education and lifelong learning. The EFF initiative was a new approach to conceiving the purposes and assessing the outcomes of ABE programs. According to Stein (2000), the EFF standards for adult literacy and lifelong learning were developed to answer a complex question: "What do adults need to know and be able to do in order to carry out their roles and responsibilities as workers, parents and family members, and citizens and community members?" (p. 1).

Adults are attracted to ABE classes for reasons often linked to the current circumstances of their lives. The factors that motivate adult students to participate in ABE classes cannot be taken for granted. This study suggests that understanding adult participation in ABE classes offers the chance to refocus on what motivates adults to participate in ABE classes and to reorient every aspect of the ABE system to achieve the best results. A focus on these factors can be potentially transforming for ABE and this study shares the philosophical view in “conceptualizing adult literacy as something bigger than the acquisition of basic skills” (Portnow, Popp, Broderick, Drago-Severson, & Kegan, 1998, p. 25), and in identifying motivational factors within the context of the individual adult learners’ life demands. This study posits that what motivates adults to participate in ABE is a complex network of factors that can only be obtained through exploration with adult learners.

This introductory chapter provided an overview of adult literacy in the United States. Chapter Two constructs the theoretical framework of the study through a review of literature related to the research questions. Chapter Three describes the research design employed to conduct the study, with particular attention to methodology and technique applied to data collection and analysis. Chapter Four presents the study results in the form of data generated and analyzed through application of the research design. Chapter Five parleys a discussion of study findings and conclusions related to the research questions and reviewed literature. This concluding chapter also addresses the implications of the findings for practice and research, as well as leadership, learning, and service.

CHAPTER TWO: LITERATURE REVIEW

Literacy arouses hopes, not only in society as a whole but also in the individual who is striving for fulfillment, happiness and personal benefit by learning how to read and write. Literacy means far more than learning how to read and write. The aim is to transmit knowledge and promote social participation.

– UNESCO, 2008

Introduction

Literacy is a fundamental human right and the foundation for lifelong learning. It is fully essential to social and human development in its ability to transform lives. For individuals, families, and societies alike, the uses of literacy for the exchange of knowledge are constantly evolving, along with advances in technology. From the Internet to text messaging, the ever-wider availability of communication makes for greater social and political participation. According to Wagner and Kozma (2003), like other educational concepts, literacy is dynamic and has been undergoing constant changes in the past decades. In the new millennium, a broader notion of literacy has emerged that embraces more than the singular held concept of acquisition of skills in reading, writing, and basic numeracy (Wagner & Kozma, 2003).

The socioeconomic, cultural, and political environment in which literacy programs are conducted may be the major determinants for the success or failure of literacy programs. Wagner and Kozma (2003) explained that it is commonly acknowledged that only when literacy is perceived to be of benefit to adults are they willing to invest time toward enrolling in ABE classes. For this reason, Wagner and

Kozma (2003) suggested that when the ABE program as a whole is better prepared to take the initiative to carry out literacy programs, then the chances of adult student literacy sustenance are better. Frequently, this situation may be created through understanding and meeting the needs of the adult students. To this end, this study quantitatively examined the general self-efficacy and motivational orientation of Adult Basic Education (ABE) students at a southeastern Wisconsin community college.

In this chapter, an overview of the theoretical and empirical literature relevant to the current study is provided. First, the Theory of Planned Behavior (TPB) presented by Icek Ajzen (1991) is discussed in the literature review as the theoretical basis for this investigation. Second, the theory of self-efficacy developed by Bandura (1997) is discussed as a distal factor to the antecedents specific to the three main determinants addressed in the TPB. Third, the literature review provides research theories that explain why adults are motivated to participate in education and includes an overview of Boshier's (1991) Motivational Orientation EPS A-Form. Fourth, the literature review reveals a brief history of participation research. Fifth, the literature probes scholarly works informing current understanding of participation research using the EPS. Sixth, the literature review gives an overview of the definition of andragogy and provides information regarding self-directed learning. Last, the literature review's final discussion closes the loop of the previous six topics.

Foundation of the Theoretical Framework

The theoretical framework is a social cognitive model that can be used to assist one's thinking when considering why adults perform particular behaviors (e.g., enrolling in ABE classes): It is the TPB (Ajzen, 1991). The TPB was used as the theoretical

framework for this investigation of the motivational orientation of ABE students in a community college. A central factor in the TPB is the individual's intention to perform a given behavior. In order to investigate the motivational orientation intentions of adult students who participate in Adult Basic Education (ABE), it is necessary to provide an overview of the theoretical foundation of intention.

Intention refers to “the degree to which a person has formulated conscious plans to perform or not perform some specified future behavior” (Warshaw & Davis, 1985, p. 214). According to Fishbein and Ajzen (1975), intention is defined as “a Person's location on a subjective probability dimension involving a relation between himself and some action” (p. 288). Intentions are assumed to capture the motivational factors that influence a behavior; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert to perform the behavior (Fishbein & Ajzen, 1975). In the intention literature, two major theories prevail: the theory of reasoned action and the TPB.

Theory of Reasoned Action

According to the theory of reasoned action, the antecedent of any behavior is the intention to perform that behavior (Fishbein & Ajzen, 1975). Intentions are assumed to capture the motivational factors that influence a behavior and are indicators of how hard people are willing to try and how much effort they are willing to put forth to perform the behavior (Ajzen, 1991). The stronger a person's intention, the more the person is expected to try and, hence, the greater the likelihood the behavior will actually be performed. The constructs employed by the theory of reasoned action are motivational in nature (Ajzen, 1991). Fishbein and Ajzen (1975) were clear in their requirement that the

theory of reasoned action applies only to volitional behaviors. A behavior is said to be under volitional control if the person can decide at will to perform it or not to perform it (Ajzen, 1991). To explain behaviors not completely under volitional control, Ajzen (1991) introduced the TPB.

Theory of Planned Behavior

The TPB extends Fishbein and Ajzen's (1975) theory of reasoned action by including the concept of behavioral control (Ajzen, 1991). According to Ajzen (1991), many factors can interfere with control over intended behavior, some internal to the individual (skills, abilities, knowledge, and planning) and some external (time, opportunity, and dependence on others). According to Ajzen and Madden (1986), "to ensure accurate prediction of behavior over which individuals have only limited control, we must assess not only intention but also obtain some estimate of the extent to which the individual is capable of exercising control over the behavior in question" (p. 456). Ajzen and Madden indicated that it is very difficult to secure an adequate measure of actual control in advance of observing the behavior. However, it is possible to measure perceived behavioral control, depending on "the person's belief as to how easy or difficult performance of the behavior is likely to be" (Ajzen & Madden, 1986, p. 457).

Ajzen (1991) further posited that, according to the TPB, the more resources and opportunities individuals think they possess, and the fewer obstacles or impediments they anticipate, the greater their perceived control over the behavior. Ajzen proposed that the relationship between perceived behavioral control and behavior is based on two rationales. First, holding intention constant, the likelihood that a behavior will be carried out increases with greater perceived behavioral control (Ajzen, 1991). Second,

perceptions of behavioral control must reflect actual control in the situation with some degree of accuracy (Ajzen, 1991). According to Ajzen, as a general rule, the stronger the intention to engage in a behavior, the more likely should be its performance. Ajzen inferred that the assumption is usually made that motivation and ability interact in their effects on behavioral achievement.

A goal of this study is to use a theoretical framework based on attitudinal research to assess the motivational orientations of ABE students. Thus, intentions would be expected to influence motivational orientation to the extent that the adult is motivated to try. The underlying foundation of intention provides the detailed descriptions needed to understand the TPB. As a framework, the TPB was ascertained to be an appropriate means to learn about the unique factors that induce a person to engage in the behavior of interest.

Theoretical Framework

The aim of this study was not to predict intentions but to utilize a theoretical framework to elicit a beginning understanding of the motivational orientation of ABE students. Ergo, the TPB was used in this study to understand the motivational orientation of ABE students. According to Ajzen (1991), the TPB is an expectancy-value theory. Expectancy value theories assume that human behavior is rationally guided by logical thought processes (Henderson, Hall, & Linton, 1979). The premise of the TPB is that individuals make rational decisions to engage in specific behaviors based on their own beliefs about the behaviors and their expectation of a positive outcome after having engaged in the behaviors. Three assumptions guided the decision to use the TPB as the theoretical framework. First, it was assumed that motivational orientation to participate

in ABE is the result of rational choice under the volitional control of the individual.

Second, it was consequently assumed that such behavior can be understood when viewed through the lens of the TPB. Third, the TPB has earlier been shown to explain individual behaviors (Ajzen, 1991). The TPB posits that a person's behavior is a function of his or her intentions to perform a particular action (Ajzen, 1991, 2001) (see Figure 2). The TPB suggests that individuals' intentions are predicted by three conceptually independent cognitive determinants: (a) attitude toward behavior, (b) subjective norm, and (c) perceived behavioral control. Each determinant consists of a belief, or a set of beliefs, and an evaluation of each belief. Figure 2 visually represents a simplified model of the TPB.

According to Ajzen (1991), attitude toward behavior (see Figure 2) refers to the degree in which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. Attitude is the individual's perceived consequences of the behavior. Ajzen indicated that attitude toward behavior is influenced by an individual's perceptions of the likelihood of identified outcomes from performing the behavior (behavioral beliefs) and an evaluation of the outcome as being valued as good or bad. Ajzen also mentioned that attitude toward behavior is determined by the individual's belief about the consequences of performing the behavior weighted by the evaluation of the consequences.

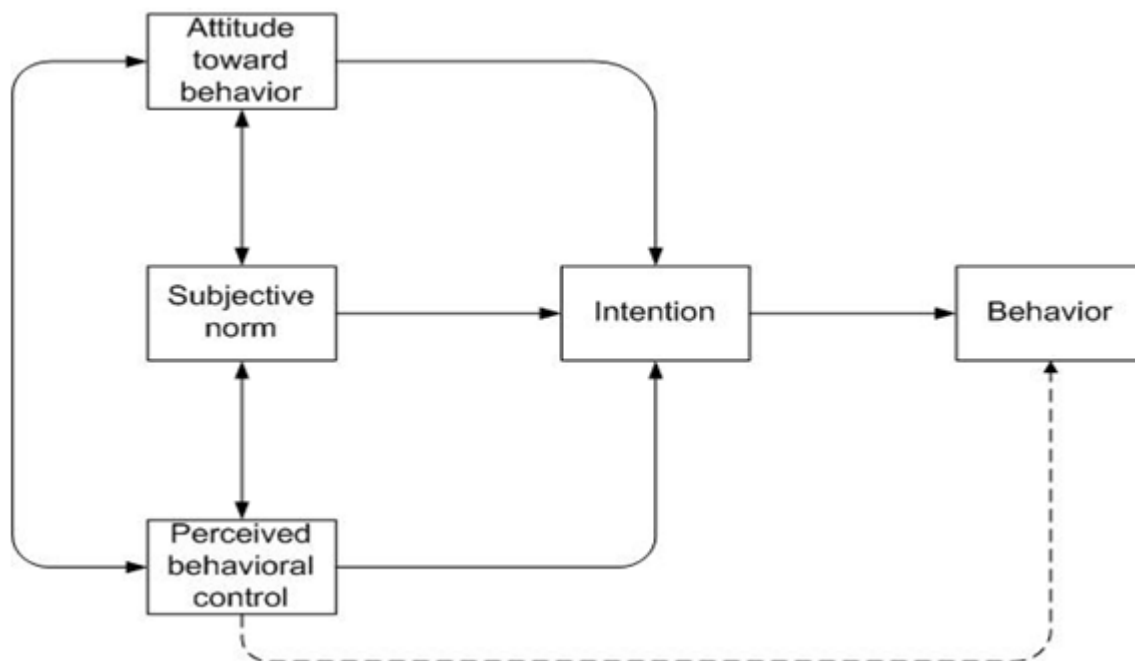


Figure 2. Theory of Planned Behavior. Note. Adapted from “The Theory of Planned Behavior,” by I. Ajzen, 1991, *Organizational Behavior and Human Decision Processes* 50(2), pp. 179-211.

Ajzen (1991) submitted that subjective norm (see Figure 2) refers to perceived social pressure to engage or not in a particular behavior. Ajzen noted that subjective norm is the individual’s subjective belief about what those people important to him or her think about performing the behavior addressed, which means that individuals will develop intentions because they believe others will like them to do it (Ajzen, 1991, 2001). Ajzen attested that subjective norm is influenced by the subjective probability that other important individuals think they should or should not perform the behavior (normative beliefs) and the measure of their motivation to comply with these important individuals. In forming the subjective norm component, individuals take into account the normative expectations of various others in their environment. Supporting this concept,

Bandura (1997) suggested that if people receive positive encouragement, they will be more likely to exert greater effort.

Perceived behavioral control (see Figure 2) consists of beliefs identifying the likelihood of resources for, and impediments to, performing the behavior addressed and evaluating the perceived effect of each resource or impediment as easy or difficult. Control beliefs are influenced by past experience in performing the behavior and experiences of acquaintances and friends, suggesting exploration and validation of these beliefs (Ajzen, 1991, 2001).

According to Ajzen (1991), perceived behavioral control (see Figure 2) refers to people's perceptions of their ability to perform a given behavior. Ajzen explained that perceived behavioral control is the individual's perception of how difficult a behavior is to perform and is consistent with the concept of self-efficacy as proposed by Bandura (1997). In other words, perceived behavioral control indicates that a person's motivation is influenced by how difficult the behaviors are perceived, as well as the perception of how successfully the individual can perform the activity (Ajzen, 1991, 2001).

Bandura (1997) supported this notion, mentioning that people with strong beliefs about their capabilities will be more persistent in their efforts and exert greater effort to master challenges. Perceived behavior control is also held to exert both direct and interactive (with behavioral intentions) effects on behavior, which is based on the rationale that however strongly held, the implementation of an intention into action is at least partially determined by personal and environmental barriers. Thus, "[t]he addition of perceived behavioral control should become increasingly useful as volitional control over behavior decreases" (Ajzen, 1991, p. 185).

According to the TPB, behavioral change is ultimately the result of changes in the beliefs of the persons performing the behavior. Modifying identified beliefs through interventions would create a change in attitude, subjective norm, and perceived behavioral control, and therefore strengthen one's behavioral intentions to perform the behavior addressed (Ajzen, 1991, 2001). The TPB is a cognitive model of human behavior that focuses on understanding clearly defined behaviors. The theory states that people act in accordance with their intentions and perceptions of control over their behavior, while intentions are influenced by attitudes toward the behavior, subjective norms, and perceptions of behavior control (Ajzen, 1991).

This TPB (see Figure 2) indicates that individual intentions are a good predictor of behavior. The stronger the intention to perform a particular behavior, the more likely a person is to perform that behavior. In addition to the antecedents specific to the three main theories of planned behavior determinants previously addressed, the distal factor of general self-efficacy was considered in this research, due to the fact that general self-efficacy is an important factor that helps explain human behavior (Chen, Gully, & Eden, 2001). Hence, this researcher aspired to examine the relationships between general self-efficacy and motivational orientation.

Review of Research and Theory About Self-efficacy

Virtually all people can identify goals they want to accomplish, things they would like to change, and things they would like to achieve. However, most people also realize that putting these plans into action is not quite so simple. Self-evaluations have been known to have an impact on motivation and behavior. One of the most commonly studied self-evaluation constructs is self-efficacy, which has been examined as task-

specific states and generalized traits (Chen, Gully, Whiteman, & Kilcullen, 2000). Chen et al. (2000) proposed that general self-efficacy is an important trait that helps explain individual differences in motivation and behavior. Stanley and Murphy (1997) suggested further that general self-efficacy is a basic self-evaluation trait that affects how people act and react in various settings. In the following section, general self-efficacy is described.

Self-efficacy in Social Cognitive Theory

In the literature, self-efficacy refers to the beliefs about one's capabilities to learn or perform behaviors at designated levels (Bandura, 1997). Bandura (1997) found that an individual's self-efficacy plays a major role in how goals, tasks, and challenges are approached. In other words, the beliefs that individuals hold about their abilities and outcome of their efforts influence how they behave. Self-efficacy is grounded in social cognitive theory. According to Bandura (1997), social cognitive theory postulates that human achievement depends on interactions between the individual's behaviors, personal factors (thoughts and beliefs), and environmental conditions.

According to Bandura (1997), in social cognitive theory, individuals evaluate their own experiences and thought processes through self-reflection, and through this form of self-referent thought people evaluate and alter their own environments and social systems. These evaluations include perceptions of task-specific self-efficacy. Bandura first introduced task-specific self-efficacy in his social learning theory. He defined task-specific self-efficacy as "the conviction that one can successfully execute the behavior required to produce the required outcome" (Bandura, 1977, p. 193). Bandura conceptualized that task-specific self-efficacy judgments vary on three dimensions: level, strength, and generality. Level refers to the degree of difficulty of the behaviors or tasks

that an individual feels capable of performing. Strength refers to the confidence a person has in his or her performance estimates. Weak self-efficacy expectations are easily modified by disconfirming experiences, while strong self-efficacy percepts are robust, promoting persistence in the face of obstacles. Generality of self-efficacy concerns the range of situations in which an individual considers him or herself to be efficacious (Bandura, 1977).

The concept of general self-efficacy is based on Bandura's (1977) dimension of generality. Sherer et al. (1982) defined general self-efficacy as a general set of expectations that a person possesses, based on past experience, that affect his or her expectations of success in new situations. In other words, Sherer et al. (1982) conceptualized general self-efficacy as task-specific self-efficacy that is generalized to address effectively a variety of other situations. Individuals with histories of numerous successes in diverse situations are theorized to have positive general self-efficacy expectancies in a greater variety of situations than individuals with less successful experiences (Sherer et al., 1982). Thus, general self-efficacy reflects a generalization across various domains of functioning in which people judge how efficacious they are.

For the majority of applications, task-specific self-efficacy should be conceptualized in a situation-specific manner (Bandura, 1997). However, general self-efficacy may explain a broader range of human behaviors and coping outcomes in which the context is less specific. It might be useful when focusing on multiple behaviors simultaneously (Luszczynska, Gibbons, Piko, & Tekozel, 2004). Luszczynska et al. (2004) postulated that general self-efficacy is the belief in one's competence to attempt difficult or novel tasks, and to cope with adversity arising from specific, demanding

situations. They further implied that general self-efficacy makes a difference in how people feel, think and act. Putting it differently, the construct of general self-efficacy reflects an optimistic self-belief, and refers to a global confidence in coping abilities across a wide range of demanding situations. According to Bandura (1997), general self-efficacy is a universal construct, which means that it characterizes a basic belief that is inherent in all individuals. Consequently, a cross-cultural commonality of beliefs about efficacy to produce effects by personal action might be expected (Bandura, 1997). Therefore, one might assume that associations between general self-efficacy and related constructs would be similar across cultures and samples.

Bandura (1977) theorized that a potent influence on student behavior is the beliefs that they hold about their capabilities. According to social cognitive theory, students are more likely to have an incentive to learn if they believe that they can produce the desired outcomes (Bandura, 1997). Hence, general self-efficacy beliefs are powerful predictors of the choices that students make, the effort that they expend, and their persistence in facing difficulties. Students obtain information to appraise their general self-efficacy from their actual performances, their vicarious experiences, the persuasions they receive from others, and their physiological reactions (Schunk & Pajares, 2002). General self-efficacy beliefs influence task choice, effort, persistence, resilience, and achievement (Bandura, 1997). Bandura (1997) stated that general self-efficacy is the degree of expectancy that one will successfully perform a desired task. Schunk and Pajares (2002) indicated that, compared with students who doubt their learning capabilities, those who feel efficacious for learning or performing a task participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level. Therefore,

Schunk and Pajares (2002) inferred that general self-efficacy influences academic achievement motivation, learning, and task choice.

The Role of Self-efficacy

Virtually all people can identify goals they want to accomplish, things they would like to change, and things they would like to achieve. However, most people also realize that putting these plans into action is not so simple. Bandura (1997) found that an individual's general self-efficacy plays a major role in how goals, tasks, and challenges are approached. It follows from social cognitive theory (Bandura, 1997) that even though students think that a behavior will produce positively valued outcomes, they will only be motivated to perform the behavior to the extent that they are confident in their ability to perform it successfully. According to the TPB, perceived behavioral control refers to a person's perception of the ease or difficulty of performing the behavior of interest (Ajzen, 1991). This view of perceived behavioral control is compatible with Bandura's (1977) concept of general self-efficacy which is "concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). Bandura, Adams, Hardy, and Howells (1980) showed that individual behavior is strongly influenced by confidence in ability to perform it (i.e., by perceived behavioral control). Bandura et al. postulated that general self-efficacy beliefs can influence one's choice of activities, preparation for an activity, and effort expended during performance, as well as thought patterns and emotional reactions. Therefore, the TPB places the construct of general self-efficacy within a more general framework of the relationships among beliefs, attitudes, intentions, and behavior.

According to Bandura (1997), self-efficacy influences the challenges that people take on as well as how high they set their goals (e.g., “I will enroll in Adult Basic Education Classes,” or “I intend to learn how to read”). Bandura (1997) postulated that if people have strong general self-efficacy, they view challenging problems as responsibilities to address, they develop deeper interest in the activities in which they participate, they form a stronger sense of commitment to their interests and activities, and they recover quickly from setbacks and disappointments. A person with a weak general self-efficacy will avoid challenging tasks, believe that difficult tasks and situations are beyond his/her capabilities, focus on personal failings and negative outcomes, and quickly lose confidence in personal abilities. A hypothesis central to self-efficacy is that humans systematically utilize and process information and thereby self-regulate their behavior (Bandura, 1997). Hence, self-efficacy is an operative construct that is related to subsequent behavior; therefore, it is relevant for this study of motivational orientations.

Theory of Planned Behavior and General Self-efficacy

Although the validity of the TPB has been well established in the literature, there has been no application of this theory in the study of motivational orientation of ABE students. This paucity of related literature limits the ability to offer a comparative summary of previous research on the application of the TPB. Nevertheless, according to Rahim, Golembiewski, and Mackenzie (2005), there are two significant assumptions of the TPB, which are that “human beings are rational and make systematic use of information available to them; and people consider the implications of their actions before they decide to engage or not engage in certain behaviors” (p. 211). The TPB asserts that the best predictor of behaviors is the strength of the intention (Ajzen, 1991).

The intention to engage in a specified action is presumed to be a precursor to behavior. Armitage and Conner (2001) conducted a quantitative integration and review of that research from a database of 185 independent studies published up to the end of 1997. The Armitage and Conner study indicated that the TPB accounted for 27% and 39% of the variance in behavior and intention, respectively. Additionally, when behavior measures were self-reports, the TPB accounted for 11% more of the variance in behavior than when behavior measures were objective or observed.

No published accounts of research have yet explained the general self-efficacy of ABE students related to motivational orientation. Moreover, general self-efficacy beliefs and motivational orientation of ABE students have not been explicated in the research literature. The application of the TPB and general self-efficacy in this study will contribute to understanding the behavior of ABE students, but also will serve to explain the motivational orientations by quantifying specific variables. For the purpose of this study, the TPB (Ajzen, 1991) postulates three conceptually independent determinants of intention. First, the attitude of students toward ABE classes explains the degree to which they have a positive or negative valuation of the ABE classes. Second, subjective norm refers to the perceived social pressure experienced by students to participate or not participate in ABE classes. Third, the antecedent of intention is the degree of general self-efficacy (perceived behavioral control), or the degree of ease or difficulty in ABE class participation experienced by students. In addition, the degree of general self-efficacy (perceived behavioral control) is assumed to reflect past experience as well as anticipated barriers and obstacles to ABE classes. Therefore, the general self-efficacy concept from Bandura's (1997) social cognitive theory has been integrated together with

Ajzen's (1991) TPB within one model to explain the motivational orientation of ABE students.

The theoretical constructs of the TPB, attitude, subjective norm, and general self-efficacy, explain a student's behavioral intention and influence a student's motivational orientation. As shown in Figure 3, this study adds general self-efficacy as the perceived behavioral control as proposed by Ajzen (1991) and hypothesizes that each TPB theoretical determinant will contribute to explaining the student's motivational orientation to participate in ABE classes. Figure 3 represents a modified model of the TPB and the relationship between the variables being examined in this study.

As shown in Figure 3, the TPB takes into consideration a sequence of events and assessments leading to an adult's decision to participate in education. In contrast to motivation theorists, motivation alone is not enough to cause an adult to return to education (Boshier, 1984). Rather, a sequence of decisions is made to lead an adult to this outcome. The integrated theoretical model presented depicts the relationship between students' attitudes, subjective norms, and general self-efficacy and motivational orientation tested in this study. The model shows that a student's attitude, subjective norm, and general self-efficacy influence the motivational orientation of ABE students. The integrated model of the TPB and self-efficacy provides a logical explanation of adult student participation that involves several different disciplines outside of education, including social cognitive theory.

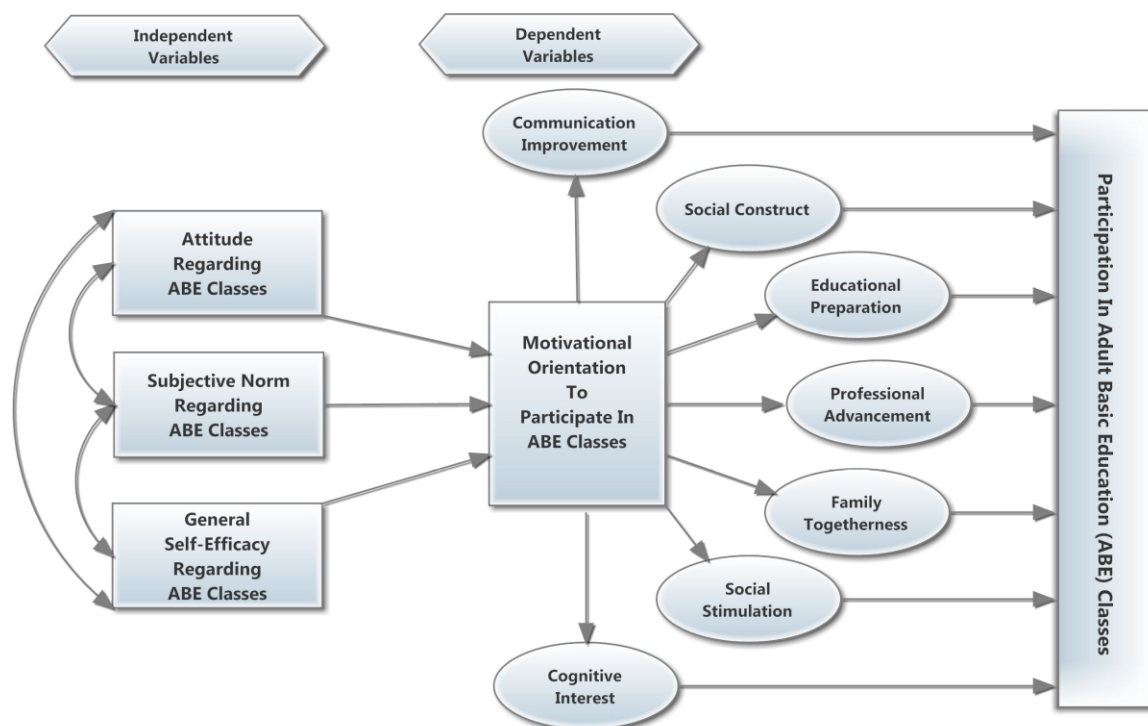


Figure 3. Modified model of the Theory of Planned Behavior and the relationship between the variables being examined in this study. *Note.* Adapted from “The Theory of Planned Behavior,” by I. Ajzen, 1991, *Organizational Behavior and Human Decision Processes* 50(2), pp. 179-211.

The integrated model presumes a cognitive element that posits that adult decisions to participate in education are determined by the combined effect of their expectations of the pros and cons of participation, and the perceived probability of personal success in the educational activity. The integrated model converges the notion that the strength of the incentive (motivation) to participate in adult education is affected by a variety of personal and external factors. An overall consolidation of the viewpoints has identified three categories of variables labeled attitude, subjective norm, and self-efficacy. In a nutshell, it is presumed that the decision to participate in ABE can be understood through an analysis of the integrated model. Apart from the integrated model variables that influence the behavioral intentions of ABE students, a domain of research examines

motivation in adult education. The next section explores motivation in adult education in more detail.

Motivation in Adult Education

In this study, how the decision to participate in ABE is linked to adult student's attitude, subjective norm, and self-efficacy is examined. Although the basic science of motivation rests on a substantial foundation, studies of applications of these principles to ABE are uncommon. Better understanding is needed of motivation in adult education studies that share the ABE student's perspective. As Cropley (1985) defined it, motivation for adult learners resides in identifying the hoped-for benefits adults expect to receive as a result of participation. Other authors defined motivation as simply, "the student's reasons for participation in the educational program" (Garst, & Ried, 1999, p. 300). This simple definition of motivation belies the critical importance motivational research has shown for this factor in student and program success. If ABE providers are to measure success of program classes by the transfer of knowledge and skills by participants, then not understanding what motivates adult students to participate in ABE classes leaves ABE providers in the dark. Success for ABE students may not equal success for ABE providers unless both sides fully understand and share common goals of the ABE classes. Cropley (1985) went on further to make an important distinction in types of motivation, pointing out that motivation can be a transitory state of "readiness" in which an individual is prepared to take on a new task or activity. This particular form of motivation is important for participants in ABE, Cropley pointed out, for "the practitioners' continued participation is dependent on the judgment that the learners make of the worthiness of a particular activity" (Cropley, 1985, p. 29).

Houle (1961) formed the basis for the development of a body of research focused on adults' motivations to learn. In *The Inquiring Mind*, Houle opened the door to the concept that adults do not approach learning in the same way as children. Houle described three different categories of adult learners based upon their motivation to pursue continuing education:

1. “Goal oriented people can describe clear-cut aims of what they want to achieve” (p. 66). Goal-oriented learners use education to accomplish clear-cut objectives. The attainment of education, thus, is segmented and non-continuous because it occurs only with the realization of a specific need or unfulfilled interest. Goal-orientated individuals involve themselves in learning activities to help satisfy a particular goal or need. What is consistent with the goal-orientated participants studied by Houle is that they all seemed to take the same course of action: they recognized a need, had a desire to do something about it, and had the opportunity to do something about it. Goal-oriented learners were “all alike in their confident acceptance of adult education as a way to solve problems or to pursue particular interests” (p. 66).
2. “Activity-oriented people participate in learning for reasons unrelated to the content of the event they are attending” (p. 66). Activity-oriented (social) learners take part mainly because of the social contact. Houle wrote, “Their selection of any activity was essentially based on the amount and kind of human relationships it would yield” (p. 66). Some are motivated by loneliness and the need for social interaction while others are

drawn to the need for achievement and for recognition that comes from receiving diplomas or certificates of completion. Still others think of learning as their way of carrying on a family tradition, while some may remark that they have nothing else to do. What is consistent with the activity-oriented participants studied by Houle is that they all sought social interaction and based their activity selection on the volume and type of human relationships they could obtain.

3. “Learning oriented people love education and the learning is more a constant than a continuing activity” (p. 66). Learning-oriented learners seek knowledge for its own sake. “Each particular educational experience of the learning-oriented student is an activity with a goal, but the continuity and the range of such experiences make the total pattern of participation far more than the sum of its parts” (p. 66). The learning-oriented participant was described as an adult who engages in learning purely for “the desire to know” (p. 66). The learning-oriented participant regard learning as fun and enjoyable in itself, and their “desire for learning may be so strong that it takes on an almost religious meaning for the individual concerned” (p. 66).

Houle’s (1961) typology offers a useful framework for thinking about multiple motives for adult learning. The author claimed that every adult has an underlying conviction about the nature and value of learning which influences their opinion and, hence, the decision to participate. Houle’s typology is a significant contribution to adult education research because it facilitates communication and inspires other research

investigations with an easily understandable yet comprehensive explanatory theory of the complicated phenomena of adult educational motivations. Houle was quick to point out that although most of the participants in his study fit neatly into one of the three dominant orientations, having characteristics in more than one of the orientations is common.

Houle stated that “these are not pure types; the best way to represent them pictorially would be by three circles which overlap their edges” (p. 16). However, he does suggest five items that all of the participants in his study seem to have in common: family background, teachers/schools, public libraries, occupation, and examples of friends.

Houle’s (1961) work is considered pivotal because he identified basic differences in what motivates adults versus what motivates children to learn. Houle went on to examine continuing education with the publication in 1980 of *Continuing Learning in the Professions*. Houle (1961) was an early supporter of self-directed learning for professionals. Related to the integrated model that explains how adults are motivated to learn is the empirical research conducted to examine the motivational orientations of why adults participate in education. Research in this domain will illuminate why adults are motivated to participate in adult education. The next section explores this line of research in more detail.

Review of Research and Theory About Motivational Orientation

The goal of this study is to investigate adults’ motivations for participating in ABE. Researchers have an interest in motivation because it is a key element in understanding human behavior (e.g., Beder, 1991; Boshier, 1971); it helps to explain why people behave as they do. Policy makers and educators in charge of ABE are especially interested in finding out what can cause a potential student to undertake study, and ABE

is regarded as the key to improving a society's human capital (Beder, 1991). This study is structured in this same regard. Bandura (1997) provided a compelling argument that general self-efficacy is one of the determinants that mediates the causal path from behavioral intention to motivation. Thus, motivation is maximized when a student expects specific outcomes from an activity, the outcomes are highly valued, and activity is perceived as doable. This study is predicated on the TPB as posited by Ajzen (1991) and general self-efficacy as postulated by Bandura (1997). This integrated model asserts that the pairing of the two theories can be used to understand the motivational orientation of adult students in ABE.

Motivational orientations are defined as the student's reasons for participation in an educational program (Houle, 1961). Boshier (1971) made the following statement to explain the importance of studying motivational orientations:

The nature of the individual learner and his reasons for participation is an important starting point for any research on adult education. An understanding of why adult education students participate would facilitate participation, throw light on the conceptual desert that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults. (p. 3)

One of the early examples of this approach to understanding adult motivation to participate in education is the notion of motivational orientation described by Houle (1961). Houle is frequently credited as having played a pivotal role in conceptualizing why adults are motivated to participate in learning activities.

In the *The Inquiring Mind*, Houle (1961) described the results of a study he conducted through interviews with 22 active adult learners (12 men and 10 women) from Milwaukee, Wisconsin, who were “conspicuously engaged in various forms of continuing learning” (p. 13). Through structured, in-depth interviews, Houle probed the participants’ perspectives on being a learner, their history of learning, and the factors that led them to continue to pursue learning with the hope that “these people and their activities could somehow be fitted together into patterns that would throw light on the meaning of continuing education” (p. 14). He found that “the desire to learn is not shared equally by everyone” (p. 13) and focused his study on those adults believed to have highly developed learning practices and orientations.

The study participants were diverse in everything from age and sex to marital condition and level of education. Although the group was diverse in a multitude of ways, 21 out of the 22 candidates interviewed were Caucasian. Houle (1961) himself acknowledged that this sample was too small to be considered a statistical sample. However, his study is one of the first that considered comprehending the nature, beliefs, and actions of the participants as a more illuminating way of determining participation motivations rather than scrutinizing the institutions that they attend. Houle’s typology of adult learner orientations categorized adult learners based on their motivation for learning, and it remains the single most influential motivational study today (Cross, 1981).

Houle’s (1961) work has been criticized for its small sample ($n = 22$) and the use of qualitative interviewing without meticulous presentation of an audit trail (Boshier, 1971; Boshier & Collins, 1985; Kim & Merriam, 2004). Boshier (1971) questioned how

Houle reached the conclusion that there were three types of learners, instead of two or four. Despite all of the weaknesses, Houle's typology has served as the foundation for other research on why adults are motivated to participate in learning activities. One way to assess Houle's contribution to the body of knowledge is to look at how his work has been utilized to guide subsequent studies.

Sheffield (1964) was the pioneering researcher who utilized Houle's (1961) typology in "The Orientations of Adult Continuing Learners," based on his doctoral research. Using Houle's typology, Sheffield developed an instrument to measure why adults are motivated to participate in adult education classes. The instrument, the Continuing Learning Orientation Index (CLOI), listed 58 items that represent the reasons that adults are motivated to participate in adult education classes and also included Houle's typology (Sheffield, 1964). Sheffield administered the CLOI to 453 adult learners who participated in 20 University based continuing education conferences. From his factor analysis, Sheffield surmised that there was a possibility of five orientations which he defined as "the major principle which gives meaning or direction to the continuing learning act or process undertaken by the adult learner" (p. 2). These five orientations, which refined and expanded Houle's (1961) three dominant orientations, include

1. Learning orientation—seeing knowledge for its own sake (same as Houle's learning oriented).
2. Desire-activity orientation—taking part because in the circumstances of the learning an interpersonal or social meaning is found, which may have no

necessary connection at all with the content of the announced purposes of the activity (a component of Houle's activity orientation).

3. Personal-growth orientation—participating in education to accomplish fairly clear-cut personal objectives (a component of Houle's goal orientation).
4. Societal-goal orientation—participating in education to accomplish clear-cut social or community objectives (a component of Houle's goal orientation).
5. Need-activity orientation—taking part because in the circumstances of learning an introspective or intrapersonal meaning is found, which may have no necessary connection, and often no connection at all, with the announced purpose of the activity (a component of Houle's activity orientation) (Sheffield, 1964, pp. 8-9).

Sheffield's study yielded five orientations that were basically consistent with Houle's three dominant orientations, but refined and expanded Houle's goal-oriented and activity-oriented orientations. Like Houle, Sheffield showed that reasons for adult participation in learning activities are mixed and no one orientation accounts entirely for participation.

Burgess (1971) had a different way of studying the reasons given by adults for participating in educational activities. After examining Houle's (1961) and Sheffield's (1964) work, Burgess (1971) developed the Reasons for Educational Participation (REP) Scale. The 70 items included on the instrument were chosen from a list of 5,773 reasons secured from literature, from 300 adult educators, and from 100 adult students (Burgess, 1971). Burgess administered the REP instrument to 1,046 adult students attending

different education centers in the St. Louis, Missouri area. After Burgess performed factor analysis on the data from the REP, he identified seven motivational orientation factors of adults who choose to participate in adult education:

1. The desire to know,
2. the desire to reach a personal goal,
3. the desire to reach a social goal,
4. the desire to reach a religious goal,
5. the desire to escape,
6. the desire to take part in an activity, and
7. the desire to comply with formal requirements (Burgess, 1971, p. 3).

Burgess' (1971) theory expanded on the previously cited orientations by Houle (1961) and Sheffield (1964). Burgess pointed out that “the desire to reach a religious goal” as well as “the desire to comply with formal requirements” were not orientations identified by Houle or Sheffield (p. 23). However, writing about these findings, Boshier (1971) indicated that the main reason behind the fact that Burgess identified the “religious goal” and the “comply with formal requirements” might have been related to the items included at the beginning of the study. Boshier hinted that because of the nature of factor analysis as a statistical technique, the items that are included at the beginning will be a stronger determiner of the factors that will emerge at the end.

Houle's (1961) typology is overviewed in this study, because it is the theoretical framework for the original EPS (Boshier, 1971). Houle's research typology has served as the theoretical basis for many subsequent motivation scholars, including Boshier (1971), who has made important contributions to another strand of motivational research.

Boshier's (1971) work diverged from Houle's in that Boshier (1971) examined the various reasons adults participate in education, instead of classifying the learners themselves as goal-oriented, activity-oriented, and learning-oriented as Houle did. In different contexts between 2 decades from 1971 to 1991, Boshier (1971, 1991) conducted several large-scale quantitative studies, to test Houle's (1961) typology.

In 1971, Boshier conducted research of adult learners in New Zealand based on Houle's (1961) three dominant orientations to "facilitate the growth of theory and models to explain participation, throw light on the conceptual desert that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults" (p. 3). Boshier's (1971) study led to the creation of the EPS, a factor-based measure that analyzes the motivation of adults who participate in education. To operationalize the motivational variables at issue, Boshier (1971) first developed the 48-item EPS. The original EPS contained 48 reasons for participation in adult education and a random sample of 233 students enrolled in three different adult education institutions in New Zealand were asked to rate the level of influence of each reason. After Boshier (1971) performed factor analysis on the data from the EPS, he identified 14 motivational orientation factors of adults who choose to participate in adult education:

1. Social welfare
2. Social contact
3. Other-directed professional advancement (similar to Houle's 1961 goal orientation)

4. Intellectual recreation (stimulus seeking) (similar to Houle's 1961 activity orientation)
 5. Inner-directed professional advancement (similar to Houle's 1961 goal orientation)
 6. Social conformity (similar to Houle's 1961 goal orientation)
 7. Educational preparedness (similar to Houle's 1961 goal orientation)
 8. Cognitive interest (learning)
 9. Educational compensation (similar to Houle's 1961 goal orientation)
 10. Social sharing
 11. Television abhorrence
 12. Social improvement and escape
 13. Interpersonal facilitation
 14. Education supplementation (similar to Houle's 1961 goal orientation).
- (Boshier, 1971, p. 2)

As previously indicated, there are similarities between Houle's (1961) goal-oriented orientations with several of Boshier's (1971) motivational orientation factors. In addition, Boshier's Factor 4, intellectual recreation (stimulus seeking), is similar to Houle's activity oriented orientation. Boshier concluded that most, if not all, adult education participants are goal-oriented. The students decided to participate in organized adult educational activities either because of a desire to grow beyond their present state or because of a need to remedy a deficiency. Boshier noted that "participation is shown to stem from motives more complex than those originally identified by Houle" (p. 3).

Morstain and Smart (1974), using the EPS in a cross-cultural and group environment, conducted a study with a dual objective. The first was to replicate the study Boshier (1971) conducted of adult learners in New Zealand using a sample of learners who were participating in adult education in the United States. The purpose of this objective was to identify any similarities among the EPS factor patterns of motivation when viewed in a cross-cultural context. The second objective was to determine significant differences in the motivations for participation in adult education when the adult learners were categorized into different groups by age and by gender.

Morstain and Smart (1974) administered the EPS to approximately 650 adults enrolled part-time at Glassboro State College. The students were asked to respond to the EPS scale by indicating the degree of influence each item had on their decision to participate in part-time college work. Based on a factor analysis, Morstain and Smart (1974) found that 6 of Boshier's (1971) 14 motivational orientations were rated as significant factors:

1. Social relationships: This factor is manifested in the participant's desire to develop or improve social relationships. Those who scored high on this factor demonstrated a need for personal association, group activity, making new friends, and being accepted by others.
2. External expectations: This factor reflects the willingness of the participant to respond to suggestions or requirements from those with whom they associate. They seek to fulfill the expectations of others rather than their own intrinsic needs.

3. Social welfare: This factor was characterized by a humanitarian concern. Those who scored high on this factor perceived their participation in adult education as preparation for community service-type work.
4. Professional advancement: The items related to this factor indicated a concern for advancement within one's profession, and those who scored high were job oriented. They saw the product of their education as greater competence or higher status in their occupations.
5. Escape/stimulation: This factor suggested a need to get away from a dull or boring environment. High scorers on this factor may have participated in adult education as relief from boredom or responsibilities.
6. Cognitive interest: This factor reflected a desire to learn and an inquiring mind. (Morstain & Smart, 1974, p. 84)

After establishing the six factors, Morstain and Smart (1974) focused on the relative amount of importance that was placed on each factor. For the entire sample, more importance was placed on the "professional advancement" and "cognitive interest" factors, and, to a lesser extent, the "social welfare" factor. Less importance was placed on the items related to "external expectations," "social relationships," and "escape/stimulation." This pattern appeared similar across the age spectrum of the sample. Further analysis revealed that the importance of social relationships decreased with increasing age. "External expectations" appeared to be more important to men than to women. Women had higher scores on the "cognitive interest" factor than did men. Group scores for "professional advancement" and "escape/stimulation" showed little variation. The relative importance of the aforementioned factors was qualified in that "no

single cluster of reasons appeared to have overriding importance for the entire group or any particular group of respondents in the sample” (Morstain & Smart, 1974, p. 91). The highest rated factor, “professional advancement,” had a score of 5.8, on a scale of 1 through 9. When analyzed by gender, “social relationships” accounted for 88% of the variance between the women’s groups and was a defining factor for women in the study. For the men’s groups, “social relationships” accounted for 61% and “external expectations” accounted for 31% of the variation.

Morstain and Smart (1974) concluded that the EPS yielded similar factor patterns when viewed in a cross-cultural context. The “social welfare” and “cognitive interest” factors were identical to two of the factors identified by Boshier (1971). The results of the study “indicated that the importance of certain clusters of reasons for participation showed noticeable variation across different age-sex groupings of adult learners” (Morstain & Smart, 1974, p. 96.) Additionally, their study validated the utility of the EPS to distinguish among groups of adult learners who have different purposes and motivations for participating in adult education.

In 1976, Boshier published a review of 14 participation studies conducted over a 15-year period. His primary focus in the critical review was the method employed by the researchers to measure the motivation of adult education participants. The review was centered on studies that stemmed from Houle’s (1961) typology and that used either the Education Participation Scale (EPS), the Reasons for Educational Participation Scale (REP), or the Continuing Learning Orientation Index (CLOI). Nine of the studies were a product of doctoral research, three as Master’s theses, and two as general research reports. In most of the studies, the researchers used the survey instruments to identify

factors affecting participation in adult education. Using factor analysis techniques, instrument items were usually grouped into clusters or factors that the researchers claimed to be similar to those developed by Houle (Boshier, 1976). The researchers then used factor scoring to determine the degree of influence each item had within its cluster. In many of the studies, an analysis of the relationship between the factor scores and socio-demographic variables was then conducted.

Boshier (1976) prescribed a set of four characteristics that should be present for such studies to be technically correct. These characteristics are as follows:

1. The problem investigated should be anchored in a sound and parsimonious theory or model.
2. The criteria for factoring and factor scoring should be fully described and justified to a point at which replication by a “naive” researcher is possible.
3. There should be no carelessness or unwarranted addition or deletion of items from instruments.
4. Instruments should be subject to test-retest reliability and validity procedures. (p. 26)

Boshier (1976) asserted that much of the participation research reviewed lacked one or more of the characteristics required for an effective study. The most grievous faults were not enough information provided to enable replication of the study, a lack of reliability information, and failure to understand criteria for rotation. Boshier’s review was based on an analysis of the statistical procedures used in the studies. Although many studies used similar instruments to obtain participation factors, results were widely different due

to the use of different criteria for generating factor matrices and factor scores (Boshier, 1976).

Boshier (1976) also addressed the issue of instrument scaling in his study. He pointed out that the EPS was keyed so that for some items the highest rating was on the right and sometimes on the left. Additionally, Boshier posited that the wording of the scale descriptors can affect the interpretation placed by the respondent. Boshier cited the example of the word “important” versus “influence” in assessing motivation to participate, stating that “important” elicits a socially desirable response while “influence” elicits an internal motivational response. Concerning how many educational activities the respondent should be asked to consider, Boshier stated that “most research projects are better served by the measurement of precise and immediate motives pertaining to the most recent (or present) activity” (Boshier, 1976, p. 24. For all three instruments, EPS, REP, and CLOI, care was taken to eliminate what Boshier called passenger items, which are test items that fail to load significantly on any factor. Through this winnowing process, all instruments were reduced in length. Boshier provided some research philosophy in the conclusion:

The attitude adopted for this review stems from the belief that science is a cumulative process; each new study should improve on what went before.

Because the earlier studies were conducted at a time when researchers were less aware than at present of artifacts and variables which confound measurement, this does not in any way diminish their importance. They were an essential part of the cumulative research process. (p. 47)

Boshier (1977) conducted another study in Canada to test the cross-cultural generality of the EPS used in his study in New Zealand. Data from 242 respondents were factor analyzed. The analysis yielded five factors which explained 42.1% of the variance which include “escape/stimulation,” “professional advancement,” “social welfare,” “external expectations,” and “cognitive interest” (p. 90).

Boshier and Riddell (1978) took the EPS and administered it to a population of retirees participating in continuing education in Vancouver, BC. Questions aligned with the professional advancement factor of the EPS were eliminated to see if there was congruence in the rest of the instrument to previous research. Boshier and Riddell felt that this was needed as “practitioners arranging educational experiences for older adults are faced with the fact some EPS items are irrelevant to the needs and motives of their clients” (Boshier & Riddell, 1978, p. 170). The researchers stated that this was needed to validate the factor structure of the EPS without the professional development questions as well as to increase the face validity of the instrument by eliminating the irrelevant questions. Boshier and Riddell (1978) found that the EPS “has considerable utility for adult educators involved with planning programs for older adults” (Boshier & Riddell, 1978, p. 173).

Bova (1979) used the EPS to study adults enrolled in college courses, and found students aged 18-22 and housewives were more motivated by “social relationships” than the other EPS factors identified by Morstain and Smart (1974). Bova also found that women were more motivated by “professional advancement” than males. In addition, Bova found that health care and clerical professionals also scored higher on “professional advancement.”

Using a modified version of the original EPS in 1981, Bova conducted a study of the motivations of senior participants in the Elderhostel program. In the study, Bova (1981) compared the motivational factors of “escape/stimulation,” “social welfare,” “social relationships,” and “cognitive interest” and found that the primary motivational factor for the research participants was “cognitive interest” followed by “social relationships.” Among the sample of senior citizens, age and gender differences were not found (Bova, 1981).

Gordon (1982), using the EPS, found that a relationship may exist between career goals and motivations. During an administration of the EPS, Samers (1982) found and determined in a study with engineers engaged in continuing education that “professional advancement” was the primary motivational orientation. Using the EPS, researchers Bova and Zelazek (1984) determined “escape/stimulation” was moderately important to students of adult basic education who were 18-45 years of age. Students who were over the age of 55 valued this factor the most, while students 46-54 valued this factor the least.

Der-Karabetian and Best (1984) administered the EPS to 200 college women aged 30-55. They concluded that women had scores in the moderate range for “professional advancement” when compared to the other factors, and students enrolled in liberal arts courses tended to score the lowest on this factor. Subjects who were unemployed scored higher on this factor. They concluded that women were less motivated by “social relations” when compared to the other factors, and scores on this factor did not change significantly due to the program of study. Women of color tended to score higher on “social relations” than Caucasian women. In addition, according to Der-Karabetian and

Best, for “cognitive interest,” women of color scored higher and Caucasian women who were unemployed scored lowest.

More than 20 years after Houle (1961) developed his typology, Boshier and Collins (1985) conducted a large-scale study to re-examine how well Houle’s typology summarized the participants’ motivational orientations. Boshier and Collins went on to do an extensive study of over 13,000 respondents over multiple continents. This phase of the research was to verify that the EPS was congruent with Houle’s typology. In this follow-up study, Boshier and Collins continued to examine Houle’s typology and attempted to verify its applicability to a changing and more sophisticated world. For this study, they used cluster analysis to verify the assertion by Houle that “these are not pure types; the best way to represent them pictorially would be by three circles which overlap at their edges” (p. 16). At the beginning of their study, the researchers noted that Houle did not fully explain why he had chosen three types of learners. Houle had simply stated, “As I pondered the cases, considering each one as a whole, it gradually became clear (after many an earlier analysis had led nowhere) that within the group there were in essence three subgroups” (as cited in Boshier & Collins, 1985, p. 114). Houle had made no attempt at a quantitative test of his typology. Boshier and Collins found that Houle’s original assertion of goal and learning orientations were congruent with their findings. Where the research differed was in the activity orientation. There were multiple facets for this orientation and the correlation was not as easily aligned.

After further studies and intercorrelational analysis, Boshier (1991) refined the EPS and developed it into an alternative version with 42 items (reasons for participation) cast on a 4-point scale of influence called the EPS A-Form. Boshier recommended that

the original EPS form be retired. However, both the original EPS and the refined EPS A-Form continue to be used. The widespread use of both versions of the EPS in the United States and abroad has produced a large database, providing a rare opportunity for secondary analysis (Boshier, 1991). After Boshier performed factor analysis on the data from the EPS A-Form, he identified seven motivational orientation factors of adults who choose to participate in adult education:

1. Motivational Orientation of communication improvement—reflects seeking education to improve verbal and written skills, learn a new language, or enhance communication between cultures.
2. Motivational Orientation of social contact—reflects participation in education because students enjoy learning with others, and they want to be part of a group.
3. Motivational Orientation of educational preparation—reflects participation in education to remediate deficiencies in learning or in preparation for a more specialized type of learning.
4. Motivational Orientation of professional advancement—reflects participation in education to strengthen the status of students at their current jobs or to position themselves to advance professionally.
5. Motivational Orientation of family togetherness—reflects participation in education to seek common ground in relationships, to share an activity, or to bridge a generation gap.

6. Motivational Orientation of social stimulation—reflects participation in education to escape from routine, alleviate boredom, or provide a diversion from social problems.
7. Motivational Orientation of cognitive interest—reflects the view of learning as a way of life and the belief in the concept of learning for the sake of learning. (Boshier, 1991, p. 162)

The study revealed that the EPS A-Form had reliability and predictive validity.

According to Boshier (1991), the study also revealed that

men were more inclined to be motivated by communication improvement, social contact, and educational preparation and less likely to be motivated by family togetherness or cognitive interest than were women. The women were more likely to be motivated by family togetherness and cognitive interest than were the men. (p. 165)

The EPS A-Form was utilized in this study. Many of the studies investigating the motivational orientations of adults adopted the same statistical analysis of motivational factors methodological design involving the EPS pioneered by Boshier (1991). Several of these works followed Boshier's and categorized adults' reasons for participating in education using the EPS. Some of these studies are presented in the paragraphs that follow.

Fujita-Starck (1996) confirmed the seven motivational orientations of the EPS A-Form in a study comparing motivational orientations among curricular groups. Fujita-Starck investigated the factor stability and construct validity of the EPS A-Form through a study of its use with students at a large state university. The researcher found that in

this context the revised seven-factor typology (“communication improvement,” “social contact,” “educational preparation,” “professional advancement,” “family togetherness,” “social stimulation,” and “cognitive interest”) was reliable in revealing “a distinctive set of student characteristics and reasons for participation” (Fujita-Starck, 1996, p. 29).

Cividin and Ottoson (1997) cited Boshier’s (1991) conceptual work with the EPS instrument in developing their Application Process Framework (APF). Cividin and Ottoson linked motivations for attending Continuing Medical Education (CME) to subsequent changes in medical practice. Their study followed multiple pathologists, and their data collection was through a series of three questionnaires, pre-event, immediately post-event and 2 months post-event. The researcher found that pathologists showed two significant correlations between reasons for participation and application to practice. These two motivation descriptors were “a need to do my job differently” and “confirm that what you are doing is correct.” As Cividin and Ottoson pointed out, these two motivators might, at first, appear contradictory. What is common for these two motivators are indicators of actively seeking out an educational event that satisfies a “gap” that was identified by the research participant; the focus was on self-directed, self-motivated learning for these physicians. Cividin and Ottoson reiterated the complexity of tracking practice change to any one learning event. They had not expected at the start of the study that the reasons for participation would show a complete picture of “the complex, multidimensional process of application” but that it would at least “provide the opening line for the application story” (p. 53).

Nason (1998) examined the motivations of managers who worked in the Federal Emergency Management Agency (FEMA) to participate or not participate in voluntary

government-sponsored training. Nason distributed the EPS, via agency electronic mail, to FEMA managers and supervisors. The study determined that “cognitive interest” and “professional advancement” were the primary motivations for participation in training. There was no significant difference in motivation between male and female managers for either to participate.

Garst and Ried (1999) used the EPS in their study of nontraditional doctor of pharmacy students at the University of Florida. These researchers looked at the effect motivation had on participation in continuing education for pharmacists and the implications on marketing subsequent educational opportunities. Garst and Ried found that the EPS was a valid instrument for measuring motivation of the target population and “may be able to increase enrollment using promotional messages to target audiences based on determination of goals or motivating influences of participants” (p. 303). Humphrey (1999) administered the EPS to community college students with disabilities in North Carolina. Students scored higher on the factors related to “educational preparation” as well as “social contact,” “social stimulation,” and “cognitive interest”.

In a study of 123 women over the age of 23 enrolled in undergraduate or graduate classes featuring the EPS, Hanner (2001) found that the top-ranked reasons for enrollment were first “for personal satisfaction/ happiness” and second “to become better educated and informed.” Reasons related to job opportunities were ranked in the middle of the scale. Hanner’s research supported the idea of interest convergence because business was a popular career choice for women.

Kim and Merriam (2004) applied Boshier’s (1991) EPS to build on existing motivation orientation data to assess adult motivation for participating in learning

experiences. The Learning in Retirement Institute (LIR) offered by the University of Georgia offers academic, college-level courses on a noncredit basis for older adults. Kim and Merriam reported that adults enrolled in the LIR were influenced more by cognitive interests than any other motivational force. Social contact was the second most influential force. Kim and Merriam suggested that researchers use a qualitative approach to probe for deeper understanding of these motivational orientation forces.

Dia, Smith, Cohen-Callow, and Bliss (2005) used the Education Participation Scale–Modified (EPS-M) to operationalize predisposing factors that correspond to motivational influences related to continuing education (Boshier, 1971). Boshier (1971) initially developed the EPS scale to evaluate different dimensions of motivation for participating in adult continuing education. Dia et al. administered the EPS-M instrument to social workers engaged in continuing education and determined that “professional advancement” was the primary motivator’ and “escape/stimulation–relief from routine” was the lowest rated motivational factor. Particularly, motivation toward professional knowledge and advancement was significantly related to perceived change in knowledge, attitude, and behavior following formal and informal continuing professional education.

Boshier, Huang, Song, and Song (2006) administered a Chinese version of Boshier’s (1991) EPS A-Form in Shanghai, China to test for validity as well as to discern motivations for participation in adult education in Chinese society. Boshier et al. discussed the impact that social changes have had on adult education and participation in China since the mid-1960s. These factors have had a profound impact on a generation that is struggling to find motivation in the new pro-education society in China (Boshier et al., 2006). The researchers found that the Chinese version of the EPS A-Form was able

to discern the motivation of Chinese adults to participate in continuing education. What was difficult to correlate was the motivational factors of the Chinese with other populations studied. Boshier et al. claimed that there is considerable opportunity for further study on this particular population.

Norton's (2007) study using the EPS A-Form sought to understand the reasons for participation and nonparticipation among elected officials in the state of Kansas who attended training by the National Incident Management System (NIMS) and Incident Command System (ICS), as well as motivations and barriers to participation in this training. One of the findings of this study was that the participation motivations as seen in the EPS A-Form had a different factor structure for elected officials than for other populations in previous studies. Norton proposed that a new version of the EPS A-Form be created that is geared to the servant leadership mindset of the majority of elected officials.

Reagan (2007) conducted a study to identify the significant motivators and deterrents to participation in formal education by officers of the Salvation Army Southern USA Territory. Using Boshier's EPS A-Form, Reagan determined that "cognitive interest," "professional advancement," and "educational preparation" were considered by officers to be the strongest motivating forces. The weakest principal component clusters were those associated with "family togetherness" and "social stimulation."

Farmer (2008) conducted a study using the EPS A-Form which investigated the differences in learning motivations of two different groups. The first group was professional and nonprofessional. The second group was urban and rural members of two southern Mississippi Institutes for Learning in Retirement programs. Significant

findings indicated that professionals are motivated by intellectual curiosity, whereas nonprofessionals have pluralistic motives. “Cognitive interest” was the strongest motivator for all persons surveyed followed closely by the motivational factor “social contact.” Rural participants were more likely influenced by all motivational orientations than were urban members.

Hatkevich (2008) conducted a descriptive quantitative study using the EPS A-Form to determine the motivational factors of Generation X and Generation Y students who sought advanced education at a comprehensive community college. The results revealed that the motivational factors of “social contact” and “social stimulation” differed among generations of students. No differences existed among the Traditionalist, Baby Boomers, or Generation X students for the motivational factors of “communication improvement,” “educational preparation,” “professional advancement,” “family togetherness,” and “cognitive interest.” “Social contact” and “social stimulation” were found to be the factors which motivate Generation X students to seek advanced education.

Basham and Buchanan (2009) used the EPS A-Form in a study and found differences in motivation related to “professional advancement” in their comparison of Masters-level social work and MBA students. Their research suggested social work students are more motivated by the opportunity to gain knowledge and business students are more motivated by enhanced career opportunities.

Miles (2009) conducted a study using the EPS A-Form. The primary purpose of the study was to identify American adult female undergraduate students’ motivations for enrolling in college. The secondary purpose was to determine if there were differences in

motivations based on choice of institutional enrollment and if motivations for enrolling in college could be predicted by selected sociodemographic variables. The results of this study indicated that adult African American undergraduate women are motivated to return to college for “professional advancement,” “cognitive interest,” and “educational preparation.” “Social contact” was the motivation least cited for enrolling in college. In addition, no differences in motivational factors to participate in higher education were found among women based on choice of institutional enrollment. Miles (2009) also found that “family togetherness” and “cognitive interest” were motivational orientations that could be predicted by the sociodemographic variables.

Johnston (2010) conducted a study to discover what motivates adult women to enroll in a community college to pursue higher education. Utilizing the EPS A-Form, Johnston (2010) investigated the extent to which gender, English as a first language, and age predicted motivational factors. The results indicated that females were most motivated by “professional advancement” followed by “cognitive interest,” “educational preparation,” “communication improvement,” “family togetherness,” “social contact,” and finally “social stimulation.” In short, women seem to be less motivated by social reasons (i.e., “social contact,” “social stimulation,” and “family togetherness”), and more motivated by practical reasons (i.e., “professional advancement,” “cognitive interest,” and “educational preparation”).

Results indicated that gender was not a significant predictor of motivation, but age of respondent and students who spoke English as their first language were predictors of several motivational factors. In general, older students placed less importance on social reasons to attend school, such as “communication improvement,” “social contact,”

and “social stimulation.” Students who spoke English as a second language were more likely to value “communication improvement,” “social contact,” “family togetherness,” “social stimulation,” and “cognitive interest” than students who spoke English as their first language.

Nolot (2011) conducted a study that examined the motivational orientations of 166 graduate students enrolled in distance education courses at a state university. Data were collected utilizing the EPS A-Form and analyses were completed for overall results by gender and age, by academic program, and by preferred method of distance course delivery. Additional analyses were performed comparing responses from the distance education students and 42 traditional students. The results of the study showed that “professional advancement” was the overwhelming motivational orientation for participation in education by these graduate students. The second highest rated motivation was reported as “cognitive interest,” and the motivational orientations rated as least influential were “social contact” and “social stimulation.” There were no differences resulting from gender, but the age group 22-30 rated “cognitive interest” and “social contact” as more influential than students in the 31-44 age group and “professional advancement” significantly higher than in the 45-59 age group. Also, participants in the 45-59 age group rated “social stimulation” significantly higher than students aged 31-44.

Last, results showed that traditional students rated “social contact,” “communication improvement,” and “educational preparation” as more influential than distance education students. Findings from this study suggest that graduate students in both distance and traditional graduate programs participate in education primarily for

“professional advancement” and “cognitive interest” reasons. In addition, analyses revealed that differences in the seven motivational orientations were impacted by age, academic program, and student type.

In this study, the reasons adults participate in Adult Basic Education (ABE) were explored. In this section, studies identified the motivational orientations of adult students. Motivational orientations are defined as the adult’s reasons for participating in educational activities (Houle, 1961). Fujita-Stark (1996) commented that “effective and responsive adult education programming requires a clear understanding of the characteristics, needs, and aspirations of program participants” (p. 29). Boshier (1971) offered a strong argument:

The nature of the individual learner and his reasons for participation is [*sic*] an important starting point for any research on adult education. An understanding of why adult education students participate would facilitate the growth of theory and models to explain participation, throw light on the conceptual desert that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults. (p. 3)

The various studies discussed in this literature review confirmed that adults enroll in adult education for different reasons. Knowledge about how adult motivational orientations differ with specific user groups and content areas was also discussed as aspects of the diverse research studies presented. The research studies also exhibited continuity with using the EPS and gave empirical support for the multifaceted construct of motivational orientation. These findings contribute to the body of knowledge of adult learners and may be of benefit to those interested in and involved in adult education.

ABE has embraced andragogy and self-directed learning as a mantra of empowerment of adult learners. The complexity involved when individuals strive to assess their learning needs accurately is a challenging area of inquiry (Houle, 1980). Research by Houle (1980) and Knowles, Holton, Swanson (2011) on adult learner motivations has identified broad categories of perceived benefits such as promotion at work, social desires to meet new people, or a wish to explore new ideas.

Malcolm Knowles (1998) was a pioneer in the field of adult education. He was a professor for adult education and an advocate for expanding adult education to adult learning, which encompassed andragogy and self-directed learning as a set of assumptions for the process of teaching adults. Knowles popularized the concept of andragogy as it made sense to have a term that would enable discussion of the growing body of knowledge about adult learners. Adult educators have long argued the distinctive nature of adult education. According to Knowles, amidst discussions of adult education, there has been increased interest in developing greater awareness of the characteristics of those adults who are taking part in adult education programs. As with the motivational orientation of adults, characteristics of the adult learner should also be understood. Andragogy is a learning theory that is designed to address the particular needs of adults, and it is based on the idea that there are significant differences in learning characteristics between children and adults (Knowles, 1980). In the next section the concept of andragogy is presented.

Review of Research and Theory About Models of Adult Education

At the same time that research was being conducted on adult motives to participate in educational activities, a substantial amount of work was being done to

shape adult education (Merriam, 2001). One goal of this work was to illuminate distinctive characteristics of adult learners, including their motives for participation and their drive to persist (Merriam, 2001). Suitably, the emergence of two prominent models of adult education, andragogy and self-directed learning, provided key frameworks upon which new educational practices and critical reflections of adult learners have been developed (Merriam, 2001). The nature of motivation in adults is a key feature in both andragogy and self-directed learning and in this study. Furthermore, these two models address motivation and explain the interplay of the adult learner in terms of psychological, sociological, educational, and cultural contexts of the educational environment. Before reviewing the literature and examining self-directed learning through the lens of that literature, a point about the nature of andragogy is now acknowledged.

Andragogy

The andragogical model posits that adults are more responsive to internal motivators than external motivators (Knowles et al., 2011). Thus, the andragogical framework indicates that motivation is a developmental process for adults in educational settings. Knowles (1970) described the differences between children and adult learners and introduced the term *andragogy* in *Modern Practice of Adult Education*. According to Knowles, andragogy “is the art and science of helping adults to learn” (p. 52). Knowles postulated that adults learn differently than children and a distinction between the two types of learners must be made to guide educators in their efforts to effectively serve adult students. Knowles asserted that adult learners share common themes that shape their learning and set them apart from child learners. Knowles et al. (2011), shared that

andragogy has been defined as “any intentional and professionally guided activity that aims at change in adult persons” (p. 60). Further, Knowles et al. (2005) concluded that andragogical principles are not theories about how adults learn. They are based on a set of assumptions about the adult learner. Based on Knowles’s (1984) theory of andragogy, Knowles et al. (2005) identified the following six principles of adult motivation: (a) need to know, (b) self-concept, (c) prior experience, (d) readiness to learn, (e) learning orientation, and (f) motivation to learn:

1. **The Need to Know:** Adults want to know why they need to learn something before undertaking learning (p. 159). Adult Basic Education (ABE) educators must help adults become aware of their “need to know” and make a case for the value of learning.
2. **The Learners’ Self-Concept:** Adults believe they are responsible for their lives (Knowles, 1984). The self-concept of adults is heavily dependent upon a move toward self-direction (Knowles et al., 2011). Adults need to be seen and treated as capable and self-directed. ABE educators should create environments in which adults develop their latent self-directed learning skills (Knowles et al., 2011).
3. **The Role of the Learners’ Prior Experiences:** Adults come into an educational activity with different experiences than do youth (Knowles et al., 2011). Prior experiences of the learner provide a rich resource for learning. There are individual differences in background, learning style, motivation, needs, interests, and goals, creating a greater need for individualization of teaching and learning strategies (Knowles et al.,

2011). The richest resource for learning resides in adults themselves; therefore, tapping into their experiences through experiential techniques (discussions, simulations, problem-solving activities, or case methods) is beneficial (Knowles et al., 2011).

4. **Readiness to Learn:** Adults become ready to learn things when they experience a need to know and do in order to cope effectively with a real-life situation or perform a task (Knowles et al., 2011). Adults want to learn what they can apply in the present, making training focused on the future, or training that does not relate to their current situations, less effective.
5. **Learning Orientation:** An adult's orientation to learning is life-centered; education is a process of developing increased competency levels to achieve their full potential. Adults are life-centered (task-centered, problem-centered) in their orientation to learning (Knowles et al., 2011). They want to learn what will help them perform tasks or address problems they confront in everyday situations and those presented in the context of application to real-life (Knowles et al., 2011).
6. **Motivation to Learn:** Adults are responsive to some external motivators (e.g., better job, higher salaries), but the most potent motivators are internal (e.g., desire for increased job satisfaction, self-esteem). Their motivation can be blocked by training and education that ignores adult learning principles. (pp. 159-165)

Knowles (1984) used the six principles of motivation to propose a program for the design, implementation, and evaluation of adult learning. The development of the six principles illustrates that the ABE educator “should involve learners in as many aspects of their education as possible and in the creation of a climate in which they can most fruitfully learn” (as cited in Merriam, 2001, p. 7). When adult students participate in a positive learning experience that follows the aforementioned six principles of andragogy, they are more likely to retain what they have learned and apply it at home, work, and in the community (Knowles et al., 2011). Knowles’ (1984) main focus in the development of andragogy was the adult learner being very self-directed. The self-directedness of adult participation in ABE classes is an illustration of these six principles of motivation as enumerated by Knowles. Self-directed learning is discussed next.

Self-directed Learning

To understand andragogy, one must begin with what it means to be an adult. According to Knowles (1968), “to be adult means to be self-directing” (p. 351); an adult “perceives herself or himself to be essentially responsible for her or his own life” (Knowles, 1980, p. 24). Knowles et al. (2011) specifically identified the adult learner as an individual with a self-concept of “essential self-direction . . . they have largely resolved their identity formation issues, and are identified with an adult role” (p. 17). Self-directed learning is a theory developed in the field of adult education based on the foundational work of Houle (1961) and through the work of his former students Alan Tough (1979) and Knowles (1984).

As a point of departure, Houle (1961) is frequently credited as having played a pivotal role in bringing self-directed learning to the forefront of the adult education field

(Brockett & Hiemstra, 1991). In *The Inquiring Mind*, Houle depicted a study that he conducted examining the reasons adults participate in continuing education. The results of this study also yielded helpful data explaining how adults learn. As Houle carefully analyzed the interview transcripts, he divided the test group into three categories of learner types: goal-oriented learners, activity-oriented learners, and learning-oriented learners.

Tough (1979) later expanded upon Houle's (1961) concepts of learner types in his study of adult learning projects. In the study, Tough interviewed 66 Canadian adult learners and found that adult learners organize their learning activities and efforts around preplanned projects. Adult learners used a variety of human (experts, teachers, colleagues) and material (literature, software, audiovisual material) resources. Consequently, Tough discovered that adults take part in learning activities within the course of their everyday lives, and often do not depend on formal systems of learning, such as an instructor or classroom. Tough concluded that adult learning projects progress through three primary phases: (a) deciding to begin; (b) choosing the planner, which may be an object such as a text, or the employment of an expert; and (c) engagement in learning as sketched out in the planning process (p. 43). Tough discovered that adult learning projects result in more than increased knowledge and skills. Adults engage in learning projects to "increase their self-insight, their awareness and sensitivity with other persons, and their interpersonal competence" (p. 43), which implies an evolution of goals and processes for the adult learner.

Tough's (1979) learning projects research had an influence on later writing by Knowles (1984) regarding self-direction. Knowles suggested that adult learners want to

be self-directed, and self-directedness is a hallmark of adult learning. Knowles described adult learners as having a clearer sense of purpose and ability to be more involved, including their ability to assess their competency development for themselves. In Knowles' view, the adult learner favors application of learning and integrating the new skills over learning with a focus on modeling abilities and qualities. Knowles identified that self-directed learning is often used to describe a form of study in which people take the primary initiative, with or without the help of others, for planning, conducting, and evaluating their own learning activities. Knowles also saw self-directed learning as an active, highly dynamic internal process for learners but including input from their experiences. Merriam et al. (2007) pointed out that self-directed learning is a form of study in which learners have the primary responsibility for planning, carrying out, and evaluating their own learning experiences. Merriam et al. also mentioned that Knowles was a pioneer in adult education and described how adults go about learning on their own and elaborate on the key decision-making points about choosing what, where, and how to learn. Knowles was also one of the first to urge that learner self-direction be incorporated into organized learning for adult education (Merriam et al., 2007). Greater learner control means that adult learners are given the time and opportunity to think about what they want to learn (that is meaningful or useful to them), how they want to go about learning (techniques, resources needed, location, and pacing), and which criteria will be used, and in what ways, to determine whether the learning experience is satisfactory and worthwhile.

For many adults, the role of learner is just one of many competing for their attention (Merriam et al., 2007). Merriam et al. (2007) pointed out that motivational

factors are more pronounced in adults because they are better able to be self-directing, to articulate learning goals, and to utilize life experience. The authors asserted that being familiar with who adult learners are and what makes them different from young learners is important because appropriate ways to approach educating adults begins with conceptions about who they are and what they need. Choices about adult educator practices should reflect considerations of context, learner knowledge and characteristics, and learner motivation (Knowles et al., 2011). Knowles et al. (2011) asserted that in viewing adult learners as individuals with motives, needs, and desires, adult educators come to see adult students as decision makers in the process.

In sum, Houle (1961), Tough (1979), and Knowles (1984) each played an important role in the development of self-directed learning research. Characteristics of the adult learner are based on andragogy and the set of assumptions developed by Knowles. Self-direction is a significant theme in the andragogy model of adult learning (Knowles, 1984). According to Knowles, the self-direction theme “assumes that adults become ready to learn when they experience a need to know or do something in order to perform more effectively in some aspects of their lives” (p. 11). Andragogy and self-directed learning present implications for how ABE administrators should approach services to meet the needs of adult students. As adults, students choose to become self-directed learners and take responsibility for their learning, and they look for the relevance of ABE skills to their own world.

Summary

Adult learners and the manner in which they learn best have been questioned and researched since the 1920s, when adult education became a professional field of practice

(Merriam, 2001). One of the goals of this study was to make a connection between the usefulness of the TPB (Ajzen, 1991) for providing insights into the attitude, subjective norm, and general self-efficacy (Bandura, 1997) of adult students toward their intended motivational orientation and engagement in ABE classes.

Three conceptually independent determinants of intention are specified in the TPB (Ajzen, 1991). The first determinant of intention is a personal factor termed attitude toward the behavior. According to Ajzen (1991), this determinant refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior in question. The second determinant of intention is subjective norm. Ajzen suggested that subjective norm is a social factor and refers to the perceived social pressure to perform or not to perform the behavior. The third determinant of intention is perceived behavioral control. Perceived behavioral control is “the person’s belief as to how easy or difficult performance of the behavior is likely to be” (Ajzen & Madden, 1986, p. 457). As mentioned earlier, general self-efficacy is believed to be an important factor contributing to high levels of intention. General self-efficacy refers to “the belief in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). Ajzen (1991) postulated that self-efficacy is close to perceived behavior control. Hence, this study presents an integrated model of planned behavior using general-self efficacy as one of the determinants instead of perceived behavioral control. The value of the integrated model does contribute to the literature on participation in that it attempts to map the interaction of determinants that have been shown to influence a person’s decision to participate in educational activities. While the interaction of the determinants is conceptualized, the integrated model can help educators

and others to become aware of the importance of certain factors in the explanation of participation.

In the literature review, the researcher also sought to understand the motivational orientation of why adult students participate in ABE classes. This literature review provides an overview of the role of Houle (1961) in developing a tripartite typology for motivational orientation research in adult education. However, in-depth studies and sound theory testing by Boshier (1971) established the EPS and the phenomenological factors that are used to explain the reasons adults participate in education. The reliability, validity, and applicability of the EPS was confirmed as evident in the discussion of the previous research studies that used the EPS to examine why adults participate in educational endeavors.

Finally, this literature review established the suitability of the andragogical model and self-directed learning as points of reference in understanding why adults participate in ABE. The principles of andragogy are described as six important assumptions about adult learners (Knowles, 1984). As mentioned earlier, one of these principles refers directly to the motivation of adult learners. Knowles et al. (2011) recognized that the andragogical model cannot completely explain adult learning, but can be adopted or adapted as needed (p. 153). Hence, moving from assumptions about adult learners to self-directed learning of adults is an acceptable transition to make in this study. The intent of this literature review was to use theoretical support from andragogy and self-directed learning to strengthen the motivational orientation literature.

The development of effective programs and instructional strategies for adult education should take account the whole person and the variety of needs and interests that

adults bring to the learning situation. Adults possess a rich background of work and life experiences; hence, they are self-directed learners whose needs must be understood by adult educators. Bullock and Harris (1996) identified that “students need confidence in themselves to carry out personal development plans” (p. 33). Ormrod (1999) found that “students who believe they can do a task are more likely to accomplish it successfully” and that people “tend to choose tasks and activities at which they believe they can succeed” (p. 134). Research has also pointed to the importance of attitudes toward learning. Houle (1961) claimed that all adults have an underlying conviction about the nature and value of learning which influences their opinion and, hence, the decision to participate. This body of literature in adult education provides the underpinnings for this study.

This literature review provided insights for developing an understanding of adult participatory behavior. Participation was presented as a complex phenomenon because what could motivate and captivate the interest of one adult may be considered uninspiring by another. The adult decision to participate in education was presented by the integrated model as a function of attitude, subjective norm, and self-efficacy on behavior intentions, and influenced by context and subjectively interpreted from an individual’s perspective. Knowing why adults attend adult education programs is vital in helping to inform adult education courses and adult education program design to meet the needs of adult learners (Vella, 2002). Vella (2002) explained that in viewing adult learners as individuals with motives, needs, and desires, adult educators come to see adult students as decision makers in the process. Kerka (2002) further asserted that when adult learners’ expectations are not met, they often choose to drop out of learning programs, so it would

follow that knowing these expectations would be critical to recruitment, retention, and successful completion of adult educational endeavors. This chapter concludes with a brief Chapter Three forecast.

Forecast Chapter Three

The preceding review of literature represents the theoretical framework related to the research questions addressed by the study. The work of many researchers and theorists informs this study in conjunction with pertinent academic literature. With the goal of gaining a better understanding of factors that motivate adults to participate in ABE classes, in the research for this dissertation, multiple influences are explored. It is intended that ABE programs and their students gain insight from the multiple factors that enhance persistence and the multiplicity of options for ABE students' learning engagement. Thus, factors that motivate students to participate in ABE classes have important implications for policy and practice in ABE programs. Quantitative research provides an opportunity to investigate Boshier's (1991) EPS A-Form.

In Chapter Three, information on the research design that will be used to measure and collect data for this study is explained. Using quantitative research contributes to understanding whether Boshier's (1991) EPS A-Form yields a measurable effect on adult student participation in ABE classes. Quantitative data are considered the best methods to explore the dichotomies of the research questions in this study. Subsequently, a quantitative, nonexperimental, descriptive, correlational, and cross-sectional analysis employing a survey instrument is used to investigate the relationship among attitude, subjective norm, general self-efficacy, and motivational orientation of students enrolled in ABE classes.

CHAPTER THREE: RESEARCH DESIGN

“Acquiring literacy is an empowering process, enabling millions to enjoy access to knowledge and information which broadens horizons, increases opportunities and creates alternatives for building a better life.”

– Kofi Annan, Seventh Secretary-General of the United Nations, 2001 Nobel Peace Prize Winner

Introduction

The concept of literacy goes beyond one of reading, writing, and numeracy to one of ensuring that people acquire the life skills and knowledge necessary for human development and empowerment. Illiteracy is linked to poverty, disadvantage, and exclusion. Literacy is an essential factor in the struggle for justice, human dignity, and equality. Employers and other stakeholders are increasingly interested in assessing the literacy skills of the adult population to monitor how well prepared it is for the challenges of the modern knowledge-based society. Therefore, literacy is important not only for personal development, but also for positive educational, social, and economic outcomes. Literacy involves a continuum of learning in enabling adults to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society. Thus, the most important voice in understanding what motivates adults is the adult’s voice. As a consequence, this study is designed to identify what factors motivate adults to enroll in ABE classes. It is hoped that this study will stimulate thinking and produce a new understanding of what motivates adults to enroll in ABE classes with the potential for useful application to bring research and practice closer together. This chapter begins with a discussion of the research design.

A research design is the overall plan for acquiring new knowledge or confirming existing knowledge (Creswell, 2009). Research design is characterized by a systematic approach to gathering information to answer questions, which is in contrast to those approaches that use intuition, seek expert advice, or follow tradition. The research design is the plan for that systematic approach, conducted in a way that ensures the answer(s) found will be as meaningful and accurate as possible. A research design is selected with two broad purposes: (a) to plan an approach that will best answer the research questions and (b) to ensure the rigor and validity of the results. This chapter introduces the research design presented in this dissertation. Thus, the research design of this study is addressed in general terms and in specific approaches. Before moving forward with the research design details, a brief summary of the literature review in Chapter Two is provided.

The purpose of the literature review is to gain knowledge regarding what past studies have contributed to a particular topic of study (Neuman, 2006). The aim of the researcher is to understand the contributions of past researchers toward theories, their strengths and weaknesses, and the links between different area and theories pertaining to the field of study (Cooper & Schindler, 2011). The literature review for this study revealed a relevant collection of studies and conceptual analysis that highlight the complexity of the variables being studied—attitude, subjective norm, general self-efficacy, and motivational orientation of ABE students—as well as the utility of examining the relationship between the variables to answering questions of interest. The researcher identified gaps in the literature regarding the motivational orientations of adult ABE students and the need for an extension of knowledge regarding how student attitude,

subjective norm, and general self-efficacy influence motivational orientation. In addition, a review of related research suggests that understanding the relationship, if any, between the variables will be useful to better serve the adult ABE student population. For this reason, the relationship of those variables was explored in this dissertation.

Other variables, called sociodemographic variables, such as gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plan to enroll in another ABE Mathematics class, plans to enroll in another ABE Reading classes, plans to enroll in another ABE Writing class, how many ABE Mathematics classes taken previously, how many ABE Reading classes taken previously, and how many ABE Writing classes taken previously, were also selected as essential to consider. This information was used by the researcher to further address a gap in the literature, as well as extend the knowledge base regarding adult ABE students. Existing literature on understanding adult ABE students and the variables surrounding this study are extremely important as they inform both the development of the research questions and the interpretation of the data collected. Since the publication of Houle's (1961) work on adult learners who undertake their own learning projects, there has been research completed in an effort to better understand adult learning. Although not a new idea, the ability to identify key components of an adult's proclivity to learn has remained elusive. Houle wrote,

Effort to explore the reasons why some people become continuing learners has made it clear that there is no simple answer to this complex question. Each person is unique and his [or her] actions spring from a highly individualized and complex interaction of personal and social factors. (p. 80)

In this study, the researcher aspired to investigate the motivational orientations that influence adult students to enroll in education. According to Houle (1961), behind any decision to learn something new lies a complex network of motives, interests, and values, and behind them, yet another layer of complex interlinked factors; “a cataract of consequences” (p. 29). To identify and understand these linked factors, this chapter presents the methodology used in this study and details the research rationale and purpose of the study, research questions, research approach, target population and research sample, survey instrument, data collection procedures, and statistical analysis procedures.

Research Rationale and Purpose

Based on the preceding discussion, it can be argued that research is always conducted to know the unknown (Cooper & Schindler, 2011). The literature review enabled the researcher to identify research gaps and develop a rationale and purpose of the study which further led to selecting a theoretical framework (Sekaran & Bougie, 2010). In the present study, Ajzen’s (1991) Theory of Planned Behavior (TPB) with the inclusion of the general self-efficacy determinant will be used to examine the motivational orientation of adult basic education (ABE) students. According to the TPB, human behavior is a function of an individual’s intention to perform the behavior in question (Ajzen, 1991). Ajzen (1991) posited that intention is determined by a combination of three conceptually independent determinants: (a) attitude toward the specific behavior, (b) subjective norms, and (c) perceived behavioral control (p. 457). More specifically, in the TPB, behavior is a function of beliefs, which are related to the behavior. Attitudes are defined as one’s positive or negative predisposition toward a specific behavior, and determined by an individual’s behavioral beliefs toward the

behavior (Ajzen, 1991). On the other hand, Ajzen (1991) supposed that the subjective norm expresses the social pressure that is placed on the individual to perform the specific behavior. Perceived behavioral control has been introduced to enhance the explanation of behaviors in which volitional control may be incomplete (Ajzen, 1991). Ajzen further indicated that general self-efficacy and perceived behavioral control are seen as almost synonymous constructs. Consequently, self-efficacy also provides a theoretical base for this study.

Self-efficacy is thought to be the primary determinant of human behavior (Bandura, 1997). According to Bandura (1997), only general self-efficacy (“I am certain that I will enroll in ABE classes”) is of a prospective and operative nature, which furnishes this determinant with additional explanatory power. General self-efficacy assesses a broad and stable sense of personal competence to cope effectively with a variety of situations. Bandura (1997) further affirmed that general self-efficacy can be characterized mainly as being competence-based, prospective, and action-related as opposed to similar constructs that share only part of this portrayal; Bandura continued to explain that general self-efficacy postulates that people have the ability to self-regulate, adopt goals, use anticipatory forethought, and reflect on their thoughts, feelings, and behaviors.

As an overarching theoretical base, this study provides a broad framework for the integration of the TPB and self-efficacy theory (Ajzen, 1991). Therefore, the researcher proposed an integrated TPB that assumes a mediating relationship between an individual’s attitude about enrolling in ABE classes, consideration of subjective norms about enrolling in ABE classes, and general self-efficacy regarding performance in ABE

classes. Thus, in this integrated model, general self-efficacy was used in place of perceived behavior control, the rationale for which is provided by Ajzen (1991), who suggested that general self-efficacy contributes to explaining various relationships among beliefs, intention, attitudes, and behavior. In addition, the motivational orientation dependent variable was used in place of the traditional behavior intention determinant. As such, motivational orientations are hypothesized to be influenced by the variables of the TPB (Ajzen, 1991): attitude, perceived social norms, and general self-efficacy. To date, no research has been conducted to examine attitude, perceived social norms, general self-efficacy, or motivational orientation of adults enrolled in ABE classes in a community college. In response to this gap in the literature, the purpose of this study was to explore the relationship between the attitude, perceived social norms, general self-efficacy, and motivational orientations of adult students enrolled in ABE classes at a community college. Figure 4 represents a modified model of the TPB and the relationship between the variables being examined in this study.

Increasing one's knowledge about the subject of interest can be accomplished in many ways. To illustrate the phenomenon of interest, Figure 4 presents a picture of the conceptual understanding of how each variable is related. While presuming a relationship exists among the variables, the strength of the relationship between the variables, if any, has yet to be determined. Accordingly, the researcher selected questions that sought to describe the relationship of the variables. Armed with this intent, the researcher presents the research questions and hypotheses that provide the answers regarding the relationship between the variables: attitude, subjective norm, general self-efficacy, and motivational orientation.

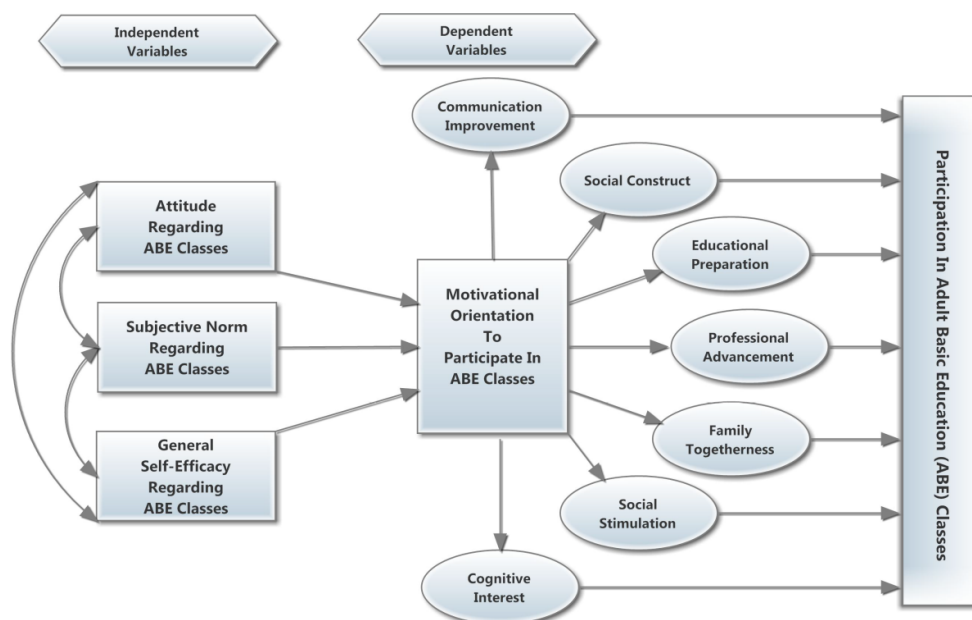


Figure 4. Modified model of the Theory of Planned Behavior and the relationship between the variables being examined in this study. *Note.* Adapted from “The Theory of Planned Behavior,” by I. Ajzen, 1991, *Organizational Behavior and Human Decision Processes* 50(2), pp. 179-211.

Research Questions and Hypotheses

After formulating the purpose of the study, a researcher moves toward outlining the research questions and developing research hypotheses (Cooper & Schindler, 2011). Interest in a particular topic usually begins the research process, but it is the familiarity with the subject that helps define an appropriate research question for a study (Swanson & Holton, 2005). Questions then arise out of a perceived knowledge deficit within a subject area or field of study. Swanson and Holton (2005) suggested that it is important to know where the boundary between current knowledge and ignorance lies. The challenge in developing an appropriate research question is in determining which uncertainties could or should be studied and also rationalizing the need for their investigation. The design of research begins with the formulation of a research question.

Gall, Gall, and Borg (2007) indicated that a research question is the methodological point of departure of scholarly research. To address the objectives of this study, several research questions were posed. The research questions helped guide this research study design and population and subsequently what data were collected and analyzed. The research questions were the essence of what this researcher wanted to know (Creswell, 2009). Creswell (2009) noted that research questions are developed from a particular theoretical perspective that a researcher chooses and answers to these questions relate directly to the theoretical perspective of the research study. Hence, the research questions have a direct influence on the answers received. In this manner, the role of the research questions is to extend knowledge and understanding as well as to make the researcher better informed regarding the relationship of the variables being studied (Cooper & Schindler, 2011).

Similarly, hypotheses are proposed so that the researcher is able to address the research questions using statistical procedures. A hypothesis is a formal statement that presents the expected relationship between an independent and dependent variable (Cooper & Schindler, 2011). Further, according to Cooper and Schindler (2011), research questions and hypotheses become signposts for explaining the purpose of the study and guiding the research. The research question is a clear statement of what is intended to be investigated. The research questions should be specified before the research study is launched and openly stated in reporting the study results. Well thought-out research questions provide focus to a researcher and determine what, when, where and how the data will be collected and provide an important link between conceptual and logistic aspects of the research study (Cooper & Schindler, 2011). Now that the elements

of the primary research questions for this study have been presented in greater detail, this information was integrated to formulate the research questions. To recapitulate, the present study addressed the following four primary research questions:

Research Question 1

What is the relationship, if any, between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 2

What is the relationship, if any, between social norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,

- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 3

What is the relationship, if any, between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 4

What is the relationship, if any, between the independent variables of gender; age; marital status; racial identification; employment status; which MATC campus the respondent was attending; which ABE class the respondent was attending; plan to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE Writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; how many ABE Writing classes were taken previously; and the individual antecedents, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Hypotheses

These primary research questions were congruent with the purpose of the study. According to Creswell (2009), research questions and hypotheses become signposts for explaining the purpose of the study and guiding the research. Researchers use research questions and hypotheses to shape and specifically focus the purpose of the study. Research questions are to inquire about the relationships among variables that the researcher seeks to know. A hypothesis, on the other hand, differs from a research question; it is more specific and makes a prediction (Cooper & Schindler, 2011). Cooper and Schindler (2011) asserted that a hypothesis is a statement about the relationship between two or more variables that suggests an answer to the research question. Further, the authors postulate a hypothesis is a preliminary statement by the researcher of what the researcher considers the outcome of the study will be. The hypothesis is a declarative statement that predicts an expected outcome. It explains or predicts the relationship or differences between two or more variables in terms of expected results or outcomes of a study. The hypothesis is a tentative and testable answer to the research question, because it expresses a relationship to be tested empirically before it can be accepted as a credible answer.

Hypotheses are created from the research questions formulated (Cooper & Schindler, 2011). The purpose of hypothesis testing is to make an inference about the population of interest on the basis of a random sample taken from that population (Swanson & Holton, 2005). According to Cooper and Schindler (2011), a hypothesis is a tentative assumption and assertion that is made for the purpose of empirical scientific testing. A hypothesis is an assumption in which the successful execution of the

assumption will cause the expected consequences described in the assertion. According solely to testing and verification, hypotheses can be divided into two groups: the null hypothesis and the alternative hypothesis.

The null hypothesis is the assumption that was maintained by the researcher unless the analysis of data provided significant evidence to disprove it. The null hypothesis is denoted symbolically as H_0 . The null hypothesis makes a claim that there is no relationship between the independent variables and the dependent variable. The opposing hypothesis is the alternative hypothesis. The alternative hypothesis is denoted symbolically as H_1 . The alternative hypothesis makes a claim that there is a relationship between the independent variables and the dependent variable. It is important to keep in mind that the null and alternative hypotheses reference population values, and not observed statistics. Thus, this study puts forward the following null and alternative hypothesis to be explored:

Research Question 1 Null Hypothesis (H_0)

There is no statistically significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,

- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 1 Null Hypotheses (H₀)

1. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the

motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

6. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 2 Null Hypothesis (H₀)

There is no statistically significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) questions and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 2 Null Hypotheses (H₀)

1. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

6. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 3 Null Hypothesis (H₀)

There is no statistically significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 3 Null Hypotheses (H₀)

1. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social

stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

7. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 4 Null Hypothesis (H₀)

There is no statistically significant relationship between the independent factors of gender; age; marital status; racial identification; employment status; which MATC campus the respondent was attending; which ABE class the respondent was attending; plans to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; how many ABE Writing classes were taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,

- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 4 Null Hypotheses (H₀)

Gender

1. There is no significant relationship between gender and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
2. There is no significant relationship between gender and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
3. There is no significant relationship between gender and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
4. There is no significant relationship between gender and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between gender and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

6. There is no significant relationship between gender and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between gender and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
8. There is no significant relationship between gender and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
9. There is no significant relationship between gender and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
10. There is no significant relationship between gender and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
11. There is no significant relationship between gender and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Age

12. There is no significant relationship between age and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

13. There is no significant relationship between age and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
14. There is no significant relationship between age and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
15. There is no significant relationship between age and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
16. There is no significant relationship between age and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
17. There is no significant relationship between age and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
18. There is no significant relationship between age and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
19. There is no significant relationship between age and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
20. There is no significant relationship between age and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

21. There is no significant relationship between age and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
22. There is no significant relationship between age and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Marital Status

23. There is no significant relationship between marital status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
24. There is no significant relationship between marital status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
25. There is no significant relationship between marital status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
26. There is no significant relationship between marital status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
27. There is no significant relationship between marital status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

28. There is no significant relationship between marital status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
29. There is no significant relationship between marital status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
30. There is no significant relationship between marital status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
31. There is no significant relationship between marital status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
32. There is no significant relationship between marital status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
33. There is no significant relationship between marital status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Racial Identification

34. There is no significant relationship between racial identification and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

35. There is no significant relationship between racial identification and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
36. There is no significant relationship between racial identification and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
37. There is no significant relationship between racial identification and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
38. There is no significant relationship between racial identification and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
39. There is no significant relationship between racial identification and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
40. There is no significant relationship between racial identification and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
41. There is no significant relationship between racial identification and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

42. There is no significant relationship between racial identification and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
43. There is no significant relationship between racial identification and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
44. There is no significant relationship between racial identification and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Employment Status

45. There is no significant relationship between employment status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
46. There is no significant relationship between employment status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
47. There is no significant relationship between employment status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
48. There is no significant relationship between employment status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

49. There is no significant relationship between employment status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
50. There is no significant relationship between employment status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
51. There is no significant relationship between employment status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
52. There is no significant relationship between employment status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
53. There is no significant relationship between employment status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
54. There is no significant relationship between employment status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
55. There is no significant relationship between employment status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which MATC Campus the Respondent was Attending

56. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
57. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
58. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
59. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
60. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
61. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the

- motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
62. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
63. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
64. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
65. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
66. There is no significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which ABE Class the Respondent was Attending

67. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
68. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
69. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
70. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
71. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
72. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the

motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

73. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
74. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
75. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
76. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
77. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Mathematics Class

78. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
79. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
80. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
81. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
82. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
83. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
84. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation

of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

85. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
86. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
87. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
88. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Reading Class

89. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

90. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
91. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
92. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
93. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
94. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
95. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
96. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of

professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

97. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
98. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
99. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Writing Class

100. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
101. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

102. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
103. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
104. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
105. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
106. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
107. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

108. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
109. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
110. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Mathematics Classes Were Taken Previously

111. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
112. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

113. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
114. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
115. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
116. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
117. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
118. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

119. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
120. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
121. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Reading Classes Were Taken Previously

122. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
123. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
124. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

125. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
126. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
127. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
128. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
129. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
130. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

131. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
132. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Writing Classes Were Taken Previously

133. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
134. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
135. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
136. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

137. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
138. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
139. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
140. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
141. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
142. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational

orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

143. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 1 Alternative Hypothesis (H₁)

There is a statistically significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 1 Alternative Hypotheses (H₁)

1. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the

motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

2. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

7. There is a significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 2 Alternative Hypothesis (H₁)

There is a statistically significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) questions and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 2 Alternative Hypotheses (H₁)

1. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

2. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is a significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation

of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 3 Alternative Hypothesis (H₁)

There is a statistically significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 3 Alternative Hypotheses (H₁)

1. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

2. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is a significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 4 Alternative Hypothesis (H₁)

There is a statistically significant relationship between the independent factors of gender; age; marital status; racial identification; employment status; which MATC campus the respondent was attending; which ABE class the respondent was attending; plans to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; how many ABE Writing classes were taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form); as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 4 Alternative Hypotheses (H₁)

Gender

1. There is a significant relationship between gender and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
2. There is a significant relationship between gender and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
3. There is a significant relationship between gender and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
4. There is a significant relationship between gender and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is a significant relationship between gender and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is a significant relationship between gender and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is a significant relationship between gender and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

8. There is a significant relationship between gender and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
9. There is a significant relationship between gender and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
10. There is a significant relationship between gender and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
11. There is a significant relationship between gender and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Age

12. There is a significant relationship between age and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
13. There is a significant relationship between age and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
14. There is a significant relationship between age and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
15. There is a significant relationship between age and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

16. There is a significant relationship between age and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
17. There is a significant relationship between age and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
18. There is a significant relationship between age and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
19. There is a significant relationship between age and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
20. There is a significant relationship between age and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
21. There is a significant relationship between age and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
22. There is a significant relationship between age and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Marital Status

23. There is a significant relationship between marital status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
24. There is a significant relationship between marital status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
25. There is a significant relationship between marital status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
26. There is a significant relationship between marital status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
27. There is a significant relationship between marital status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
28. There is a significant relationship between marital status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
29. There is a significant relationship between marital status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

30. There is a significant relationship between marital status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
31. There is a significant relationship between marital status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
32. There is a significant relationship between marital status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
33. There is a significant relationship between marital status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Racial Identification

34. There is a significant relationship between racial identification and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
35. There is a significant relationship between racial identification and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
36. There is a significant relationship between racial identification and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

37. There is a significant relationship between racial identification and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
38. There is a significant relationship between racial identification and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
39. There is a significant relationship between racial identification and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
40. There is a significant relationship between racial identification and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
41. There is a significant relationship between racial identification and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
42. There is a significant relationship between racial identification and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
43. There is a significant relationship between racial identification and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

44. There is a significant relationship between racial identification and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Employment Status

45. There is a significant relationship between employment status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
46. There is a significant relationship between employment status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
47. There is a significant relationship between employment status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
48. There is a significant relationship between employment status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
49. There is a significant relationship between employment status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
50. There is a significant relationship between employment status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

51. There is a significant relationship between employment status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
52. There is a significant relationship between employment status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
53. There is a significant relationship between employment status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
54. There is a significant relationship between employment status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
55. There is a significant relationship between employment status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which MATC Campus the Respondent was Attending

56. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
57. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and subjective

norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

58. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
59. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
60. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
61. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
62. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
63. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the

motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

64. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
65. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
66. There is a significant relationship between which MATC campus the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which ABE Class the Respondent was Attending

67. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
68. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

69. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
70. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
71. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
72. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
73. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
74. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

75. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
76. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
77. There is a significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Mathematics Class

78. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
79. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
80. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

81. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
82. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
83. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
84. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
85. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
86. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

87. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
88. There is a significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Reading Class

89. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
90. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
91. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
92. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
93. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of

communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

94. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
95. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
96. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
97. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
98. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

99. There is a significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Writing Class

100. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
101. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
102. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
103. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
104. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
105. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social

contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

106. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
107. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
108. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
109. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
110. There is a significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Mathematics Classes Were Taken Previously

111. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
112. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
113. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
114. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
115. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
116. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the

- motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
117. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
118. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
119. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
120. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
121. There is a significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Reading Classes Were Taken Previously

122. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
123. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
124. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
125. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
126. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
127. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

128. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
129. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
130. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
131. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
132. There is a significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Writing Classes Were Taken Previously

133. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and attitude (as measured by

the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

134. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
135. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
136. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
137. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
138. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
139. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

140. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
141. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
142. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
143. There is a significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

The purpose of hypothesis testing is to make an inference about the population of interest on the basis of a random sample taken from that population (Swanson & Holton, 2005). These two competing hypotheses are not treated on an equal basis: special consideration is given to the null hypothesis. Given the null hypothesis of no relationship between the independent variables and the dependent variable, a statistical hypothesis test was performed to estimate the probability of a relationship due to chance that is derived from the survey data (Cooper & Schindler, 2011). Thus, according to Cooper and

Schindler (2011), one never accepts the null hypothesis, but rather one rejects the null hypothesis with a certain level of significance. One does not directly test the alternative hypothesis, which is by default accepted when the null hypothesis is rejected on the basis of the statistical significance test results. In investigating the hypothesis, the researcher is interested only in statistically significant results.

Significance Level and p -Value

Hypothesis testing is an integral part of most analysis procedures that go beyond merely describing the nature of the data (Parasuraman, Grewal, & Krishnan, 2004). A statistical hypothesis test is a method of making decisions using data, whether from a controlled experiment or a noncontrolled experiment (Cohen, Cohen, West, & Aiken, 2003). Cohen et al. (2003) explained that in statistics, a result is called statistically significant if it is unlikely to have occurred by chance alone, according to a predetermined threshold probability, the significance level. A decision rule is a guideline that specifies the significance level for rejecting the null hypothesis. The decision rule allows one to reject or fail to reject the null hypothesis. If one rejects the null hypothesis, the alternative hypothesis can be accepted. However, if one fails to reject the null hypothesis, it can only be suggested that the null hypothesis may be true.

The decision rule for rejecting the null hypothesis is defined by the significance level, alpha (α) (Cohen et al., 2003). A decision rule is a guideline that specifies the sample evidence necessary to reject the null hypothesis (Parasuraman et al., 2004). A test statistic is a standard variable whose value is computed from sample data and compared with a critical value (obtained from an appropriate probability table) to determine whether or not to reject the null hypothesis (Parasuraman et al., 2004). A critical value is

set such that if the actual sample value exceeds that level, the null hypothesis will be rejected.

According to Cohen et al. (2003), the significance level, alpha (α), is a decisive value for the probability value (p -value). The p -value of a statistical hypothesis test is the probability of getting a value of the test statistic as extreme as or more extreme than that observed by chance alone. The p -value was compared with the actual significance level of the survey data from this study. In this context, significant does not mean “important,” but it means “not likely to happen just by chance.” The decision to reject or retain the null hypothesis is known as significance. Thus, in this study, if the p -value was less than .05, significance was reached and the researcher rejected the null hypothesis. In other words, if the p -value was less than .05, it was confirmed that there was no relationship between the independent variables and the dependent variable (Cohen et al., 2003). The smaller the p -value, the more convincing is the rejection of the null hypothesis. It indicates the strength of evidence for rejecting the null hypothesis H_0 , rather than simply concluding “reject H_0 ” or “do not reject H_0 .” That is, if the null hypothesis were to be rejected at the 5% significance level, it will be reported as ‘ $p < 0.05$ ’. Throughout this study, the researcher used the ‘ $p < 0.05$ ’ as the significance level. When the null hypothesis was rejected, it was rejected in favor of the alternative hypothesis. When the p -value was greater than .05, significance failed to be reached, and the researcher retained the null hypothesis.

By cause of the statistical analysis, the null hypothesis can be rejected or not rejected. As a principle of rigorous scientific method, this subtle but important point means that the null hypothesis cannot be accepted. If the null hypothesis is rejected, the

alternative hypothesis can be accepted; however, if the null is not rejected, it cannot be concluded that the null hypothesis is true. The rationale is that evidence that supports a hypothesis is not conclusive, but evidence that negates a hypothesis is ample to discredit a hypothesis. Just because the null hypothesis is true in one situation does not mean it is always true.

The method of data collection is determined early in the research process. Once a research question is determined, one must make decisions regarding what type of data is needed and how the data are collected. This decision establishes the basis for how the data are analyzed. One should use only approved research methods for collecting and analyzing data. Congruence between the nature of the research questions and the theoretical framework of the study is essential to the research design selected (Gall et al., 2007). By the same reasoning, Gall et al. (2007) recognized that the overall research design and choice of methodology, in any study, are integrally dependent upon the nature of the research questions. In turn, within the quantitative research paradigm, data collection methods need to be harmonious with the research design. The next section provides an overview of the research design and the fit between the research questions and the research design, prior to examining the different research methodologies that were used in this study.

Research Design

The research design is concerned with the practical arrangements of getting an answer to the research questions. The research design is the blueprint that describes how, when, and where data are to be collected and analyzed (Leedy & Ormrod, 2010). It follows that the function of a research design is to ensure that the research data are

unambiguous, concise, and relevant (Leedy & Ormrod, 2010). According to Leedy and Ormrod (2010), research design is characterized by a systematic approach to gathering information to answer the research questions, which is in contrast to those researcher approaches that use intuition, seek expert advice, or follow tradition. The research design is the plan for that systematic approach, conducted in a way that ensures that the answer(s) found are as accurate and meaningful as possible. The research design identifies the research population, instruments used in the study, when the study began, and when the study ended (Fraenkel & Wallen, 2006). Fraenkel and Wallen (2006) specified that a research design is selected with two broad purposes: (a) to plan an approach that best answers the research questions and (b) to ensure the rigor and validity of the results.

The overall objective of this study was to investigate the relational application of the TPB (Ajzen, 1991) determinants (attitude, subjective norm, and general self-efficacy) to motivational orientation of adult students enrolled in ABE classes. Based on the modified application of the TPB in this study, it was hypothesized that adult students' motivational orientation is influenced by three major determinants: a favorable or unfavorable evaluation of the ABE class (attitude toward the behavior), perceived social pressure to perform or not enroll in ABE classes (subjective norm), and general self-efficacy regarding the perceived ease or difficulty of attending ABE classes. Thus, the present study was designed as a quantitative, nonexperimental, descriptive, correlational, and cross-sectional analysis employing a survey questionnaire to investigate the relationship between attitude, subjective norm, general self-efficacy, and motivational

orientation of students enrolled in ABE classes. All research questions in this study are quantitative in nature.

The research design for this study was guided by the research objectives and the data collection methods were selected based on the research paradigm. In brief, a research paradigm is an overall conceptual framework within which a researcher may work; that is, a paradigm can be regarded as the “basic belief system or worldview that guides the investigator” (Guba & Lincoln, 1994, p. 105). Based on the idea that the paradigm for this study can be quantified, measured, and expressed numerically, a quantitative research design was chosen for this study. In a nutshell, the researcher believes that a quantitative research design will produce quantifiable explanations of the relationship between attitude, subjective norm, general self-efficacy, and motivational orientation of students enrolled in ABE classes. This protocol is the essence of establishing an appropriate study design. The study findings shared, the conclusions drawn, and the recommendations that the researcher provides are based on what the collected data for the study revealed. Next, a more detailed explanation of the nature of quantitative research is provided.

Nature of Quantitative Research

A quantitative research method focuses on understanding and breaking down the phenomenon into parts to see how they do or do not connect (Creswell, 2009). Creswell (2009) recognized that quantitative research is an inquiry into a social or human problem based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true. Therefore, a quantitative research method involves collecting

information that is specific and limited to the particular parts of events or phenomena being studied. The process of quantitative research involves setting research questions, collecting data using instruments, analyzing numerical data using statistical techniques, and reporting findings and discussions (Creswell, 2009). According to Creswell (2009), in terms of collecting data, quantitative researchers tend to use instruments with preset questions and responses to gather numeric data from study participants. Hence, quantitative research tends to provide an explanation of trends or an explanation of the relationships among preset variables using statistical procedures to describe trends, compare group differences, and relate variables. By the same reasoning, quantitative research was used in this study to find the answer to the research questions through numerical evidence. Research involves interconnections between the researcher with other researchers, with readers of his or her research report, and with the entire world. Every time a research project is started, there is an attempt to look through what others have done to determine what has already been created and to see what further steps one can do based on what others have done. Thus, researchers use a number of different approaches to study a variety of issues. In this study, a nonexperimental research design was used.

Nonexperimental Research Design

Kerlinger and Lee (2000) defined nonexperimental research as

Systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among

variables are made, without direct intervention, from concomitant variation of independent and dependent variables. (p. 558)

Kerlinger and Lee summarized the dominant characteristics of nonexperimental research design as the lack of scientific control and inability to manipulate the variables.

Likewise, Sproull (2002) defined nonexperimental design as one that does not have an experimental variable, but does include a variable that can be measured. Additionally, Sproull validated the use of a nonexperimental design as appropriate “when the researcher has control over who or what to measure, when the measurement takes place and what to ask or observe” (p. 153). Consequently, nonexperimental design is recommended when the researcher is interested in scientifically describing the relationships between variables (Creswell, 2009). Nonexperimental research design is appropriate for this study because the independent variables are not manipulated and the participants of the study are not subject to scientific treatments or interventions.

Descriptive Research

In quantitative research, the objective is to determine the relationship between one thing (an independent variable) and another (a dependent or outcome variable) in a population. Subsequently, Leedy and Ormrod (2010) asserted that the purpose of descriptive research is to observe, explore, describe, and document aspects of a situation as they naturally occur. Moreover, Leedy and Ormrod (2010) explained that descriptive research brings the ability to describe events in greater or less depth as needed, to focus on various elements of different research techniques, and to engage quantitative statistics to organize information in meaningful ways. Burns and Grove (2005) defined descriptive research as “the exploration and description of a phenomenon in real life situations. It

provides an accurate account of characteristics about particular individuals, situations or groups” (p. 24). The outcomes of descriptive research include identification of relationships between the independent and dependent variables that are based on empirical data that also help build new understanding of the behavior being investigated (Burns & Grove, 2005). Therefore, descriptive research is used to obtain information concerning the current status of the behavior to describe what exists with respect to the variables or conditions in a situation.

Burns and Grove (2005) ascertained that the goal of descriptive research is to understand a specific set of variables in a group of individuals, but descriptive research stops short of identifying the relationship between the variables. Descriptive research does not get at the reasons for how and why something occurs or what caused them to occur (Fraenkel & Wallen, 2006). More importantly, descriptive research is used to gather data to document and present a complete picture of a given subject. Descriptive research design involves collecting data to describe persons, organizations, settings, or phenomena (Fraenkel & Wallen, 2006). According to Fraenkel and Wallen (2006), once there is more than one variable to describe, one can go a step further in the research process and calculate the statistical relationship between them. A correlational research design is used to describe the statistical relationship between two or more variables. Another advantage of a correlational research design is that it can provide information concerning the degree of the relationship between the variables being studied. For this reason, a correlational research design was used in this study to describe the statistical relationship between the independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation).

Correlational Research Design

Correlational research design is a descriptive study in which the researcher not only describes variables, but also examines the nature of the quantitative relationships among them (Creswell, 2009). Creswell (2009) explained that correlational research is a quantitative design of research which aims to determine if any kind of relationship exists between two or more variables. Correlational research is an easy way to understand how two or more variables are related to each other. The purpose of this study was to statistically examine the relationships between the variables, not to predict outcomes. Thus, in the present study, a correlational research design was utilized to identify the relationship between the attitude, subjective norm, general-self efficacy, and motivational orientation of adult students enrolled in ABE classes at a community college.

Correlational designs measure the degree of association between the variables using the statistical procedure of correlational analysis. This degree of association indicates if and how the variables are related and what the strength of the relationship is (Creswell, 2009). According to Creswell (2009), correlational research designs are quantitative studies in which the researcher's focus is on measuring, using correlational statistical tests to examine the relationship between two or more variables: "The major purpose of correlational research is to clarify our understanding of important phenomena through the identification of relationships between variables" (Fraenkel & Wallen, 2006, p. 360). When interpreting correlational data, a researcher looks to the statistical data to determine relationships.

Correlation is a technique for investigating the relationship between two quantitative variables. To determine the relationship between variables, a correlation

coefficient is used, which is denoted by r (Fraenkel & Wallen, 2006). The range of the correlation coefficient is between -1.00 and +1.00. The value of the correlation coefficient measures two things about the nature of the relationship between two or more variables: the correlation strength and the direction. The sign of the correlation coefficient (+, -) defines the direction of the relationship, either positive or negative (Fraenkel & Wallen, 2006). There are three possible values for r : a positive correlation, a negative correlation, and no correlation (Fraenkel & Wallen, 2006). A positive correlation coefficient means that as the value of one variable increases, the value of the other variable increases, and vice-versa. A correlation coefficient closest to +1.00 indicates a strong positive correlation (Fraenkel & Wallen, 2006). A negative correlation coefficient indicates that as the value of one variable increases, the value of the other variable decreases, and vice-versa. A correlational coefficient close to -1.00 indicates a strong negative correlation (Fraenkel & Wallen, 2006). No correlation indicates no relationship between the two variables. A correlation coefficient of 0 indicates no correlation (Fraenkel & Wallen, 2006). According to Fraenkel and Wallen (2006), a correlation coefficient greater than 0.8 is generally described as strong, whereas a correlation coefficient less than 0.5 is generally described as weak. If the value of a correlation coefficient is above 0.70, then the relationship is considered to be almost always significant. Pearson's correlation coefficient (r) is a measure of the strength of the association between the two variables.

Pearson's r is a useful descriptor of the degree of linear association between two variables. Pearson's r has two key properties of magnitude and direction. When it is

near 0, there is no correlation, but as it approaches -1 or +1, there is a strong negative or positive relationship between the variables, respectively (Snedecor & Cochran, 1989).

Once the researcher has identified the correlation coefficient (r) for the study sample, the researcher will need to determine what the likelihood is that the r value found occurred by chance. In other words, does the relationship found in the sample really exist in the population or were the study results an accident? For this study, the researcher set the alpha level at .05. To determine if the r value found with the study sample meets that requirement, the researcher used the following critical value for Pearson's Correlation Coefficient r as shown in Table 4.

To use the table that reflects the critical values of the Pearson Correlation Coefficient, the researcher needed two pieces of information: the number of subjects in the study and the correlation coefficient r for the study (Snedecor & Cochran, 1989). First the researcher must determine something known as the degrees of freedom (df). For a correlation study, the df is equal to 2 less than the number of subjects in the study (Snedecor & Cochran, 1989). If the researcher collects data from 600 students, the degrees of freedom are 598. The Critical Value Table 4 was used to find the intersection of alpha .05 (see the columns) and 598 degrees of freedom (see rows). The value found at the intersection (.088) is the minimum correlation coefficient r that the researcher will need to confidently state 95 times out of a 100 that the relationship found in the study with 600 subjects exists in the population from which they were drawn. If the absolute value of the correlation coefficient is above .088, the researcher rejects the null hypothesis (there is no relationship) and accepts the alternative hypothesis: there is a statistically significant relationship. If the absolute value of the correlation coefficient is

Table 4

Critical Values for Pearson's Correlation Coefficient r

<i>df</i> (=N-2) (N= number of study participants)	<u>Level of significance for one-tailed test</u>			
	0.05	0.025	0.005	0.0005
	<u>Level of significance for two-tailed test</u>			
	0.10	0.05	0.01	0.001
10	0.549	0.632	0.765	0.872
20	0.378	0.444	0.561	0.679
30	0.306	0.361	0.463	0.570
40	0.264	0.312	0.403	0.501
50	0.235	0.279	0.361	0.451
60	0.214	0.254	0.330	0.414
70	0.198	0.235	0.306	0.385
80	0.185	0.220	0.286	0.361
90	0.174	0.207	0.270	0.341
100	0.165	0.197	0.256	0.324
200	0.117	0.139	0.182	0.231
300	0.095	0.113	0.149	0.189
400	0.098	0.098	0.129	0.164
500	0.088	0.088	0.115	0.147
1000	0.062	0.062	0.081	0.104

Note. Numbers in the left column are degrees of freedom (*df*). Numbers in the top row are significance levels (alpha). Adapted from *Statistical Methods* (8th ed.), 1989, by G. W. Snedecor and W. G. Cochran. Ames, IA: Iowa State University Press, p. 473.

less than .088, the researcher fails to reject the null hypotheses: there is not a statistically significant relationship.

Correlational research simply examines whether or not two variables are related to one another without introducing the notion of causation (Snedecor & Cochran, 1989). While correlational studies can suggest that there is a relationship between two variables, they cannot prove that one variable causes a change in another variable (Snedecor & Cochran, 1989). In other words, correlation does not equal causation. For example, in this study, it may be suggested in the correlational study that there is a relationship

between general self-efficacy and motivational orientation, but it cannot show if general self-efficacy increases or decreases motivational orientation. The attribution of causation is not a part of the hypothesis for this study. While significant relationships between attitude, social norm, general self-efficacy, and motivational orientation are explained, it is not possible from this study to determine whether a change in one or more of the variables actually caused a change in the other.

A correlational research design was selected for this study, for the purpose of this study was to determine the relationship between the attitude, subjective norm, general self-efficacy, and motivational orientation of adult students enrolled in ABE classes. This type of design was an appropriate choice because the variables of interest were operationalized to measure the degree and magnitude of the relationship between them. For the purpose of this study, attitude, subjective norm, and general self-efficacy were identified as the independent variables, whereas motivational orientation for participation in ABE classes was identified as the dependent variable.

Cross-sectional Research Design

Descriptive research typically makes use of a cross-sectional research design (Cohen et al., 2003). Cohen et al. (2003) noted that a cross-sectional design collects data to investigate associations between variables and make inferences about a population of interest at a single point in time. In a cross-sectional research design, the variables of interest in a sample of subjects are assayed once and the relationships between them are determined (Creswell, 2009). It would seem then that cross-sectional research is a snapshot of the populations about which the data were gathered (Creswell, 2009). A cross-sectional research design can be used to identify relationships between two or more

variables and describe characteristics that exist in a population, but not determine cause-and-effect relationships between different variables. Identifying a relationship between variables does not imply causation, but if a relationship does exist, further understanding may be gained by pinpointing the nature of the relationship. Creswell (2009) contended that cross-sectional research design is limited by the fact that it is carried out at one time point and gives no indication of the sequence of events—whether extenuation influences occurred before, after, or during the behavior being studied.

Cross-sectional research design is descriptive. Cross-sectional research can be used to collect information about the actions, attitudes, behaviors, beliefs, characteristics, knowledge, or opinions among members of a population (Gall et al., 2007). Mainly, according to Gall et al. (2007), the benefit of a cross-sectional research design is that it allows researchers to compare many different variables at the same time. Subsequently, a cross-sectional research design was considered appropriate for this study because the associations between the independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation) were examined. A cross-sectional research design was deemed necessary for this study to help determine the direction and the strength of the association between the independent variables and the dependent variable of adult students enrolled in ABE classes. However, according to Creswell (2009), a cross-sectional research design does not provide definite information about cause-and-effect relationships between variables; such studies offer a snapshot of a single moment in time. They do not consider what happens before or after the snapshot is taken.

Survey Research Methodology

Descriptive research is heavily dependent on survey research methodology that yields valuable descriptive data (Creswell, 2009). Principally, in most cross-sectional studies, researchers collect data using a survey method. Creswell (2009) stated that survey methodology research illustrates the principles of correlational research, and it provides an accurate and efficient means for describing people's thoughts, opinions, and feelings. In survey method research, participants answer questions administered through interviews or a survey instrument. A survey instrument involves the use of a predetermined set of questions, generally in the form of a questionnaire. Once a survey instrument is developed and administered, the obtained data can be used to produce statistical information to describe the relationships between the variables of interest to the researcher (Leedy & Ormrod, 2010). A survey instrument was used in this study and was considered appropriate as an information gathering tool because of its flexibility and applicability to multiple settings.

Fraenkel and Wallen (2006) stated that a survey instrument may be used for descriptive, explanatory and exploratory purposes. Surveys are chiefly used in studies that have individual people as the unit of analysis. Leedy and Ormrod (2010) wrote that a survey instrument is a series of questions used to gain information. The principles of survey research are that it provides a breadth of coverage, presents a snapshot of opinions and views at a specific point in time, and involves empirical research (Creswell, 2009). The primary purpose of surveys is to describe the self-reported characteristics of a population. Fraenkel and Wallen (2006) described a cross-sectional survey instrument as one that collects information from a sample that has been drawn from a predetermined

population and is collected at just one point in time. In a cross-sectional design, either the entire population or a subset thereof is selected, and from this population, data are collected to help answer the research questions (Fraenkel & Wallen, 2006). Fraenkel and Wallen (2006) emphasized that it is called a cross-sectional survey instrument because the data about the dependent variables and the independent variables that are collected represent what is going on at only one point in time. To explore the relationship between the attitude, perceived social norm, general self-efficacy, and motivational orientation of adult students enrolled in ABE classes, this researcher employed a cross-sectional survey.

Survey Instrument

According to Creswell (2009), a survey provides a quantitative or numeric description of the research sample through the data collection process of asking research participants questions. Using the TPB as a basis, the overall objective of this study is to investigate the relationship between the determinant variables attitude, subjective norm, general self-efficacy, and motivational orientations of adult students enrolled in ABE classes. After a review of studies on factors determining motivational orientations of adult learners by Boshier (1991), and in order to collect the data necessary to examine the research questions and hypothesis underlying this study, a cross-sectional, 80-question, paper-and-pencil survey instrument, consisting of five data collection questionnaires, with one sociodemographic questionnaire and four Likert-type scales (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree), was administered during the Fall 2012 semester, starting on August 23, 2012, and ending on September 27, 2012. Permission was obtained from Boshier (1991) to include the 42 items from his Motivational Orientation EPS A-Form in the 80-question survey instrument. The basic

assumption underlying the development of the survey instrument was that adult learners' participation in ABE classes have motivational orientations which can be measured with a considerable degree of accuracy. The five data collection questionnaires that were used in this survey instrument included

1. Thirteen-question Sociodemographic Questionnaire (created by researcher),
2. Nine-question Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (Blunt & Yang, 2002),
3. Four-question Subjective Norm Direct Measure [SNDM] Scale (Davis et al., 2002),
4. Twelve-question General Self-Efficacy [GSE] Scale (Bosscher & Smit, 1998),
and
5. Forty-two-question Education Participation Scale (Motivational Orientation EPS A-Form) (Boshier, 1991).

The following section provides a brief overview of each data collection questionnaire that was used in the survey.

Sociodemographic Questionnaire

The Sociodemographic Questionnaire is a 13-question self-report measure used to assess the sociodemographic characteristics of age, ethnicity, gender, marital status, and employment status (see Appendix A). The sociodemographic characteristics were controlled for during data analyses to examine the relationship between the variables measured in the study.

**Revised Adult Attitudes Toward Continuing Education [RAACE] Scale
(Blunt & Yang, 2002)**

The Revised Adult Attitudes Toward Continuing Education [RAACE] Scale is a nine-question self-report measure comprised of three sub-scale factors with three items per factor used to provide a measure of a person's perceived attitudes toward adult continuing education (see Appendix A). The nine-item scale was developed from the exploratory sample and then tested with the confirmatory sample (Blunt & Yang, 2002). All questions required the study participant to choose the degree of agreement. A Likert-type scale with four response categories was used intentionally to limit reflexive selection of the middle ground (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree) (Krosnick et al., 2002). In addition, the four response categories were used to keep the RAACE Scale consistent with the EPS A-Form so as not to confuse the research participants.

According to Blunt and Yang (2002), the RAACE Scale and its subscales have acceptable levels of reliability when calculated by the congeneric model method. The congeneric model method estimates were higher than those yielded by the conventional method of Cronbach's coefficient alpha, likely due in part to the congeneric model not being negatively biased by the small number of scale items (Blunt & Yang, 2002). Confirmatory factor analysis supported the earlier findings that attitudes toward continuing education are a multifactorial construct (Blunt & Yang, 2002). The congeneric model reliability estimates of the RAACE Scale ranged from 0.65 to 0.80, which purports the RAACE Scale to be a valid and reliable instrument to assess attitudes

toward adult education (Blunt & Yang, 2002). The congeneric model reliability estimates for the RAACE Scale sub-scale factors are shown in Table 5.

Table 5

Congeneric Model Reliability Estimates for RAACE Scale Sub-Scale Factors

Attitude Scale Sub-scale Factors	Congeneric Model Reliability	
	Estimates	
Enjoyment of Learning Activities	.71	
Importance of Adult Education	.80	
Intrinsic Value of Adult Education	.65	

Note. Blunt and Yang (2002)

Subjective Norm Direct Measure [SNDM] Scale (Davis et al., 2002)

The subjective norm refers to the social pressure that individuals perceive regarding engaging or not in engaging in a behavior (Ajzen, 1991). The Subjective Norm Direct Measure [SNDM] Scale is a 4-question self-report scale used to assess subjective norms with respect to enrolling in ABE classes (see Appendix A). All questions required the research participant to choose the degree of agreement. A Likert-type scale with four response categories was used intentionally to limit reflexive selection of the middle ground (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree) (Krosnick et al, 2002). In addition, the four response categories were used to keep the SNDM consistent with the EPS A-Form so as not to confuse the research participants. The SNDM is a 3-item measure, and consistency was assessed using

Pearson's correlation coefficients (Ajzen, 1991). Using a criterion for acceptability of $r > 0.25$, internal consistency was high ($r > 0.4$) for the SNDM.

General Self-efficacy [GSE] Scale (Bosscher & Smit, 1998)

The General Self-efficacy [GSE] Scale is a 12-question self-report scale comprised of three sub-scale factors, (a) initiative, (b) effort, and (c) persistence, that measures general self-efficacy (see Appendix A). The scale is designed to assess a broad and stable sense of personal competence and optimistic self-beliefs to cope with a variety of difficult demands in life. Instead of using a specific behavior-oriented self-efficacy measurement, the GSE Scale was selected for this study due to its practicality in measuring the effect of perceived self-efficacy of ABE students. The unidimensionality of the GSE Scale was supported by a confirmatory factor analysis, and 12 items were designed. All questions required the study participants to choose the degree of agreement. A Likert-type scale with four response categories was used intentionally to limit reflexive selection of the middle ground (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree) (Krosnick et al, 2002). In addition, the four response categories were used to keep the GSE Scale consistent with the EPS A-Form so as not to confuse the research participants. The complete GSE Scale is attached at the end of this dissertation in Appendix A.

Reliability for the GSE Scale has been established using Cronbach's alpha coefficients for internal consistency. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale (Creswell, 2009). The three sub-scale internal consistency scores are as follows: initiative (Cronbach's Coefficient Alpha =

0.64), effort (Cronbach's Coefficient Alpha = 0.63), and persistence (Cronbach's Coefficient Alpha = 0.64). Bosscher and Smit (1998) conducted a confirmatory factor analysis of the factor structure and results supported the three sub-scale factor model. Sample items from the GSE Scale include, "If something looks too complicated I will not even bother to try it"; "When I make plans, I am certain I can make them work"; and "When I set important goals for myself, I rarely achieve them" (Bosscher & Smit, 1998). The Cronbach's alpha coefficient of internal consistency scores for the GSE Scale sub-scale factors are shown in Table 6.

Table 6

Cronbach's Alpha for GSE Scale Sub-Scale Factors

GSE Scale Sub-scale Factors	Cronbach's Coefficient Alpha
Initiative	0.64
Effort	0.63
Persistence	0.64

Note. Bosscher & Smit (1998)

Education Participation Scale (Motivational Orientation EPS A-Form)

(Boshier, 1991)

The Education Participation Scale (Motivational Orientation EPS A-Form) is a 42-question self-report scale comprised of seven sub-scale factors that measure motivational orientations (see Appendix A). All questions required the study participants to choose the degree of influence. A Likert-type scale with four response categories was used intentionally to limit reflexive selection of the middle ground (1 = strongly agree; 2

= tend to agree; 3 = tend to disagree; and 4 = strongly disagree) (Krosnick et al., 2002). The EPS A-Form does not have an overall score, but provides mean scores on the seven sub-scale factors. Each sub-scale factor is comprised of six items, which makes it easier to compare sub-scale means of a research participant as each factor has an equal number of items (Boshier, 1991).

Boshier (1991) confirmed the construct, concurrent, and predictive validity of the EPS A-Form. Based on the high factor loadings of the items, Boshier (1991) concluded that the instrument is sound in terms of construct validity. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale (Creswell, 2009). The Cronbach's alpha of the EPS A-Form ranged from 0.76 to 0.91, which affirmed the construct validity and high internal consistency of the instrument (Boshier, 1991). The EPS A-Form scale scores were calculated by taking the sum of the responses to each of six items that comprised a sub-scale factor. It was not necessary to derive mean scale scores using the EPS A-Form because all of the sub-scale factors have an equal number of scores (Boshier, 1991). The Cronbach's alpha coefficient of internal consistency scores for the EPS A-Form sub-scale factors are shown in Table 7.

Validity and Reliability

In research, an appropriate data collection questionnaire can make the difference between null and significant findings (Creswell, 2009). The foregoing section described the validity and reliability characteristics of each of the four data collection questionnaires that were used in this study. Validity is the degree to which a questionnaire measures the construct or behavior being assessed. Creswell (2009)

Table 7

Cronbach's Alpha for EPS Motivational Orientation (A-Form) Sub-Scale Factors

EPS (A-Form) Sub-scale Factors	Cronbach's Coefficient Alpha
Communication Improvement	0.89
Social Contact	0.91
Educational Preparation	0.80
Professional Advancement	0.80
Family Together	0.82
Social Stimulation	0.80
Cognitive Interest	0.76

Note. Boshier (1991)

identified three types of validity: content, criterion-related, and construct. Content validity is established when the questions on the instrument are representative of all questions that could be asked; criterion-related validity is established when the scores relate to the study's outcome; and construct validity is established when the resulting scores from the instrument are useful and significant (Creswell, 2009). Reliability is the level of consistency obtained when using the instrument. Creswell suggested that internal consistency is one procedure that can be used to assess reliability. The internal consistency procedure determines if an individual's scores are consistent throughout the instrument.

Evaluating the appropriateness, reliability, and validity of each data collection questionnaire for this research study was critical to their value (Creswell, 2009). Based on the Cronbach's Coefficient Alpha and congeneric model reliability estimates, overall

the data collection questionnaires selected for this study have shown good reliability, validity, and acceptance in research settings. Thus, it is believed that in the context of this study, the data collection instrument may be utilized to identify the relational paths of the independent and dependent variables that are being investigated, attitude, subjective norm, general self-efficacy, and motivational orientation, as well as to facilitate theoretical discussion of how the data analysis can enhance our understanding of the relationships.

The final survey instrument for this study was submitted to the Institutional Review Board (IRB) at Cardinal Stritch University and Milwaukee Area Technical College for review and approval. In designing a quantitative method for a research study, Leedy and Ormrod (2010) proposed that the research population and research sample be identified. In the following section, the research population and research sample that were selected for this study are discussed.

Research Population

The research population is all of the individuals that were investigated in the study (Fraenkel & Wallen, 2006). Fraenkel and Wallen (2006) specified that the population for any particular study is defined by specific common characteristics. The population of interest in this study had three common characteristics: (a) they were adults; (b) they were enrolled in ABE classes at a public, coeducational, 2-year community college located in southeastern Wisconsin; and (c) the college was one in a statewide network of 16 technical colleges operating under the auspices of the Wisconsin Technical College System. This researcher was not able to include every member of the population, so she selected a smaller, more workable group for conducting this study.

The subset of the overall population that was included in this study is called a sample (Fraenkel & Wallen, 2006). Fraenkel and Wallen (2006) went on to explain that once a study defines the population of interest, the larger group the researcher is interested in gaining knowledge about, then the researcher must find a way to get a sample of individuals who are members of that population. The research sample in this study is discussed next.

Research Sample

The purpose of a survey instrument is to gain important knowledge about a population (Gall et al., 2007). Gall et al. (2007) explained that researchers usually cannot make direct observations of every individual in the population they are studying. Instead, they collect data from a subset of individuals, called a research sample, that should accurately represent the characteristics of interest of the larger study population to suit the purpose of the study. According to Gall et al., convenience sampling is a nonprobability sampling technique in which research subjects are selected because of their convenient availability, accessibility, and proximity to the researcher rather than selecting from the entire population. Because some members of the population have no chance of being sampled, the extent to which a convenience sample—regardless of its size—actually represents the entire population cannot be known (Gall et al., 2007).

Gall et al. (2007) explained that with convenient nonprobability samples there is no way to know how well the sample represents the population; any statistical analysis on the sample cannot be extrapolated to the population. In spite of this, Gall et al. argued that despite nonprobability samples being limited in regard to their ability for generalization to the population, nonprobability samples can still provide valuable

information. However, while the findings from convenient nonprobability samples cannot be used for inferential purposes, they can be used for exploratory purposes. For purposes of this study, the convenience nonprobability sample for this study consisted of ABE students enrolled in a public, coeducational, 2-year community college located in southeastern Wisconsin. The data collection for the study occurred during the Fall 2012 semester, starting on August 23, 2012, and ending September 27, 2012. The final sample size was 600 research participants ($n = 600$).

Institutional Review Board Approvals

The researcher submitted a protocol application to the Institutional Review Board (IRB) at Cardinal Stritch University and Milwaukee Area Technical College. The Institutional Review Board (IRB) at both institutions determined that the rights and welfare of the participants involved in this research study were carefully guarded, that the research participants were not at risk, and that the research methods described were appropriate. The IRB letter of approval from Milwaukee Area Technical College is attached at the end of this dissertation as Appendix B. The IRB letter of approval from Cardinal Stritch University is attached at the end of this dissertation as Appendix C.

The survey instrument did not contain participants' names. To that end, there is no link of individual participants to specific responses and data. A statement of confidentiality was included in the research participant information and informed consent form. A copy of the research participant information and informed consent form may be found in Appendix D. At the end of the survey instrument a statement was included that notes to the research participant: "I understand that by filling out this survey I have

consented to be in this research study and approve the use of my research data to be used for research purposes.”

Procedures for Data Collection

Data for the study were collected using a survey instrument. This type of instrument design is an efficient way to collect data from a study population in a short amount of time (Leedy & Ormrod, 2010). Data from participants were gathered over a 5-week period beginning Thursday, August 23, 2012 and ending Thursday, September 27, 2012. The researcher contacted ABE instructors by email, requesting permission to administer the data collection instrument during a regularly scheduled class and to identify a convenient class date and time for testing during the 16-week period (see Appendix E). During the class session, the researcher explained the purpose of the study and distributed the survey packets to each student, which included research participant information and informed consent, survey instructions, and the survey instrument for each student to complete.

The research participant information and informed consent form was used to explain to the research participants why their participation was appreciated. The form also described the purpose of the research study and provided general information regarding the rights of human subjects and the length of time for the study. The form also summarized the risks, fair treatment, anonymous and confidential participation, and option to opt out (Leedy & Ormrod, 2010). Students were asked to volunteer to participate in the study. No incentive or reward was offered to the participants for taking part in the study or to the instructors for allowing the students to participate in the study during class time. Only participants over the age of 18 that actively acknowledged

consent were permitted to participate in the research study. The survey instructions were read out loud to the participants and the participants were asked to read along as the instructions were read.

Procedures for Data Analysis

Data used in this study were collected from a paper-and-pencil survey instrument. The survey data collected were stored in a Microsoft Access database. The completed surveys were scanned and the scanned results data file was uploaded into a comma-separated variable file for analysis. During the scanning process, unique numbers were printed on each survey as they were scanned. The unique numbers also appear as part of the data record for each survey processed and can be used to verify the accuracy of the scanned data back to specific surveys. At the completion of scanning, the surveys were returned to a locked file where they will be maintained for 7 years. The scanned results data file was imported into an SPSS 20.0 statistical package software program (SPSS, 2011). Correlation and multiple regression were used to assess relationships among the factors.

Descriptive Analyses

Descriptive statistical analyses were conducted using frequency distributions, and measures of central tendency and variability described the research population and identified trends or data abnormalities among the TPB independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation). Frequency distributions reporting the sample sizes associated with each category of response as well as their associated percentages were conducted for all categorical measures of interest, while the mean and standard deviation were reported for

all continuous measures of interest. These analyses serve to better describe this sample of respondents and the distribution of these data. Means and standard deviations were obtained for independent variables (attitude, subjective norm, and general self-efficacy), along with the dependent variable (motivational orientation).

Reliability Analysis

Reliability analyses were conducted using Cronbach's alpha to determine the internal consistency reliability of all scales included in this study. Cronbach's alpha scores of .70 or above were used to indicate acceptable reliability among these measures. Following these analyses, single scores were calculated for all measures deemed reliable, which were used in all further analyses.

Demographic Analysis

An ANOVA was conducted to assess differences between the means of the TPB independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation) for each categorical sociodemographic variable that contained more than two categories of response (i.e., ethnicity, marital status, and employment status). Independent-sample t-tests were conducted between the independent variables, the dependent variable, and sex, which consisted of only two categories of response. Additionally, correlations were conducted between the demographic measure of age and the independent variables as well as the dependent variable included in this study. These analyses served to determine the extent of the association between these demographic measures, and the dependent and independent variables included in this study.

Correlational Analysis

The measure of correlation that is most widely used is the Pearson product-moment correlation coefficient, usually denoted as r (Cohen et al., 2003). Cohen et al. (2003) noted that a correlational analysis is a measure of the linear relation between two variables. When the correlation coefficient is used for descriptive purposes to determine the extent of the linear association between pairs of variables of interest, one need not be concerned with the distribution of the variables (i.e., it is not necessary to demonstrate that the variables are normally distributed). On the other hand, when hypothesis testing is employed with tests of statistical significance, it becomes necessary to demonstrate that the variables are normally distributed with equal variance. Testing the null hypothesis that $r = 0$ against the alternative hypothesis that $r \neq 0$, it should be noted that if the sample sizes of both groups are the same, with more than 30 observations and equal variance, the test is fairly robust to departures from normality. Cohen et al. (2003) considered $r = 0.1$ to be small, $r = 0.3$ to be medium, and $r = 0.5$ to be large.

A correlation analysis was conducted to determine if a significant association existed between the TPB independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation). Initially, scatter plots were constructed to determine the linearity of these relationships, with normality testing also being done to ensure that these measures were normally distributed. When either of these assumptions was violated, Spearman's correlation (r_s), a nonparametric correlation coefficient, was conducted instead of Pearson's (r).

Multiple Regression Analysis

A multivariate analysis was conducted to determine if the theoretical planned behavior independent variables (attitude, subjective norm, and general self-efficacy) are significant predictors of the dependent variable (motivational orientation). The motivational orientation dependent variable was regressed onto the independent variables of attitude, subjective norm, and general self-efficacy to determine if they are significant predictors of motivational orientation. A second regression model also included all demographic variables as additional predictors.

Regression Model

The primary goal of this study was to identify the relationship between the variables using the constructs of the TPB. This goal was accomplished by developing a multiple regression model based on the dimensions of the independent variables (attitude, subjective norm, and general self-efficacy) and the dependent variable (motivational orientation). The purpose of this model was to predict variable Y , with maximum accuracy, from a linear combination of independent variables (Tabachnick & Fidell, 2007). In this study, the following regression model was used for the survey instruments for the independent and dependent variables of the TPB:

$$Y = b_1X_1 + b_2X_2 + b_3X_3 + E$$

The regression coefficient variable is represented as b_x . The independent variable for attitude is represented as X_1 , the independent variable for subjective norm is represented as X_2 , the independent variable for general self-efficacy is represented as X_3 , and E represents the residual (or error estimate). Y represents the dependent variable of motivational orientation.

Researchers collect data in the field for the purpose of a particular study, which is called primary data (Yin, 1994). Data collected in this way should be appropriate to the aims of the research and must always be directed toward answering the research questions raised by the researcher. In all research studies, analysis follows data collection. The result of the analysis depends on the statistical data analysis procedures. Yin (1994) stressed that to interpret data collected for a research study, it is important to use meaningful categories to organize them to understand how the variables relate to each other. Therefore, an overview of the data collection method that was used to analyze and interpret the answer to each research question is provided. Research of any kind is endlessly creative and interpretive. Interpretation requires the designation of data analysis procedures through which to comprehend the significance of the data collected. Interpretation therefore, makes the analyzed data meaningful.

Additionally, understanding the language of statistics is important for making informed decision about the choice of statistical measures. In a research study, the researcher needs to establish a foundation for the reader to understand the terms and concepts that are used in the research (Cohen et al., 2003). For this reason, the statistical concepts and terms that are referred to in the study are defined in the *Glossary of Statistical Terms* provided in Appendix F. The statistical concepts and terms are drawn from various sources and a detailed reference is provided to enable the reader to refer when needed. The *Glossary of Statistical Terms* provides a common language and shared meaning that help the researcher to communicate the data analysis clearly and precisely. Appropriately, in Appendix F, a Glossary of Statistical Terms is provided and paraphrased from Bluman (2010) and Field (2009).

Summary of Chapter Three

In sum, the objective of this study was to understand students' underlying attitudes, subjective norm, and general self-efficacy toward Adult Basic Education (ABE) classes using the TPB as a theoretical framework. This research is among the first to use the variables of the TPB to examine the motivational orientation of students enrolled in ABE classes at community college. This chapter presented the research questions and hypotheses that were posed and described the research setting, target population, and research sample that were examined. The research methodology used in the study was shared, as well as the survey instrument and each previously validated survey questionnaire scale that was implemented. In addition, the chapter discussed the data collection procedures that were engaged and the methods of data analyses that were employed.

Enhancing the understanding of adult students' motivational orientation to enroll in ABE classes has important implications for institutions that offer ABE programs. Adult students enter the ABE classroom from diverse backgrounds with varying educational skill levels. Some adult students dropped out of high school, while others graduated from high school with very weak reading, writing, and mathematics skills. According to the U. S. Department of Education (2003), millions of the nation's adults lack the skills or competencies necessary to be successful in the workplace and society, but they are not enrolling or persisting in ABE programs. While many adults do not participate in adult education for reasons that are personal and beyond the control of ABE programs, some do not enroll or remain in ABE programs because of their quality or limited access to the courses and services they need (USDOE, 2003). As noted in *A*

Blueprint for Preparing America's Future (2003) by the U.S. Department of Education, Office of Vocational and Adult Education, "Adults who make the personal investment in learning deserve a broad array of high-quality program options that best meet their needs" (p. 2). Therefore, enrollment in an ABE class is a choice, and adult students often make considerable sacrifices to attend (USDOE, 2003). However, if adult students feel the ABE program is not helping them achieve their goals or is not structured for their specific needs, they may decide the personal investment is not worthwhile and drop out.

Literacy includes the ability to read and write. But it also involves emotional and social literacies such as motivation, attitude, subjective norms, and general self-efficacy. This study was focused on these variables. It is hoped that the results from this study will help to increase understanding of the factors that influence adults to enroll in ABE classes and help adults with limited literacy skills to overcome their literacy challenges. It cannot be expected that adult students stay engaged with ABE classes unless the ABE program administrators and staff are committed to staying engaged with the students. ABE programs and their students stand to gain from the multiple factors that motivate students to enroll in ABE classes and the multiplicity of options for learning engagement that the findings of this study revealed.

In Chapter Three, the methodology, research design, and procedures to investigate the relationship, if any, that student attitude, subjective norm, and general self-efficacy have on the motivational orientations of adult students enrolled in ABE classes were presented. Using five data collection questionnaires (see Appendix A), in one survey instrument, 600 ABE students were surveyed to generate rich and meaningful data. In Chapter Four, analyses of the data collected and the interpretation of the data in relation

to the research questions are presented. Finally, in Chapter Five, the implication of the research findings for further research, leadership, learning, and service are discussed.

CHAPTER FOUR: RESEARCH RESULTS

It is vital to call attention to the problem of illiteracy. Our society must begin to understand the severity of this problem and its detrimental effects. Perhaps even more essential is the need to reach the people who need help in overcoming their illiteracy and to make them aware of the services that are available.

– Senator Frank Lautenberg, on National Literacy Day, 1991

Presentation of Approach

This study assessed the plausibility of using Ajzen's (1991) theory of planned behavior (TPB) to identify the factors that motivate adults to participate in Adult Basic Education (ABE) classes at a southeastern Wisconsin Community College. The original TPB (Ajzen, 1991) attested that planned behaviors are determined by behavioral intentions which are largely influenced by three determinants: attitude (a student's overall evaluation of enrolling in ABE classes), subjective norm (a student's own estimate of the social pressure from people he/she cares about regarding participating in ABE classes), and perceived behavioral control (the extent to which a student feels able to engage in ABE classes). This study explored the relevance of incorporating Bandura's (1997) general self-efficacy (a student's perception of his/her ability to participate in ABE classes) as one of the three determinants in the TPB instead of using the determinant of perceived behavioral control. Like attitude and subjective norm, general self-efficacy assumes that goal-directed behavior is a purposive action rooted in cognitive activity. The postulate central to this theory is that adults process information and thereby self-regulate their motivational orientations. Thus, in this study, motivational orientations

were the cognitive representation of a student's reason to enroll in ABE classes and were the immediate antecedent of behavior that is influenced by the three determinants of the modified TPB: attitude, subjective norm, and general self-efficacy.

The purpose of this study was to understand the factors that motivate adults to participate in an Adult Basic Education (ABE) program class offered by a community college in the southeastern part of Wisconsin. The review of the literature indicated that no existing research has investigated, in combination, the relational application of the modified TPB determinants (attitude, subjective norm and general self-efficacy) to the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form.

An adult student's participation in ABE classes may be seen as a motivated behavior in response to the desire to satisfy specific motivational orientations. After further studies and inter-correlational analysis, Boshier (1991) refined the EPS and developed it into an alternative version with 42 items (reasons for participation) cast on a 4-point scale of influence called the EPS A-Form. Boshier recommended that the original EPS form be retired. However, both the original EPS and the refined EPS A-Form continue to be used. The widespread use of both versions of the EPS in the United States and abroad has produced a large database, providing a rare opportunity for secondary analysis (Boshier, 1991). After Boshier performed factor analysis on the data

from the EPS A-Form, he identified seven motivational orientation factors of adults who choose to participate in adult education. To explicate the motivational orientations of ABE students, the following seven motivational orientations, as identified by Boshier (1991), are described below:

1. Motivational Orientation of communication improvement—reflects seeking education to improve verbal and written skills, learn a new language, or enhance communication between cultures.
2. Motivational Orientation of social contact—reflects participation in education because students enjoy learning with others, and they want to be part of a group.
3. Motivational Orientation of educational preparation—reflects participation in education to remediate deficiencies in learning or in preparation for a more specialized type of learning.
4. Motivational Orientation of professional advancement—reflects participation in education to strengthen the status of students at their current jobs or to position themselves to advance professionally.
5. Motivational Orientation of family togetherness—reflects participation in education to seek common ground in relationships, to share an activity, or to bridge a generation gap.
6. Motivational Orientation of social stimulation—reflects participation in education to escape from routine, alleviate boredom, or provide a diversion from social problems.

7. Motivational Orientation of cognitive interest—reflects the view of learning as a way of life and the belief in the concept of learning for the sake of learning (Boshier, 1991, p. 162).

To place this study on a sound footing in understanding the motivational orientations behind a student's choice to enroll in ABE classes, the study applied the TPB (Ajzen, 1991) as a guiding framework to examine the relative strength and association of the three determinants (attitude, subjective norm, and general self-efficacy) and motivational orientations of ABE students. In order to identify the factors motivating adult learners to participate in ABE classes a cross sectional paper-and-pencil survey, consisting of five data collection questionnaires, with one sociodemographic questionnaire and four Likert-type questionnaire scales (1 = strongly agree, 2 = tend to agree, 3 = tend to disagree, and 4 = strongly disagree), with a total of 80 questions, was administered to answer the following four broad research questions:

Research Question 1

What is the relationship, if any, between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,

- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 2

What is the relationship, if any, between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 3

What is the relationship, if any, between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 4

What is the relationship, if any, between the independent variables of gender; age; marital status; racial identification; employment status; which campus the respondent was attending; which ABE class the respondent was attending; plans to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE Writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; and how many ABE Writing classes were taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form); as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,

- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

According to Creswell (2009), research questions and hypotheses become signposts for explaining the purpose of the study and guiding the research. Researchers use research questions and hypotheses to shape and specifically focus the purpose of the study. Creswell (2009) explained that hypotheses are predictions regarding the relationship effect of selected factors on other factors. Statistics are used to test whether the prediction in hypotheses are accurate, so hypotheses direct which statistical procedures are used with the data. The results for two types of hypotheses may be used in a research study. The first type, an alternative hypothesis, is a prediction of the relationships that will be found for selected variables in a study. The second type of hypothesis, a null hypothesis, always predicts that there will be no relationship found for the selected variable in a study. The null hypothesis states the prediction about the relationship effect of selected factor on other factors in the negative, predicting no relationship. The researcher must then find enough evidence to reject the prediction of the null hypotheses, a statistically significant test result being the evidence that is required. The following null hypotheses were investigated in this study:

Research Question 1 Null Hypothesis (H₀)

There is no statistically significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 1 Null Hypothesis (H₀)

1. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

3. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 2 Null Hypothesis (H₀)

There is no statistically significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) questions and

motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 2 Null Hypotheses (H₀)

1. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation

of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

4. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 3 Null Hypothesis (H₀)

There is no statistically significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 3 Null Hypotheses (H₀)

1. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
2. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
3. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
4. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of

professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

5. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Research Question 4 Null Hypothesis (H₀)

There is no statistically significant relationship between the independent factors of gender; age; marital status; racial identification; employment status; which campus the respondent was attending; which ABE class the respondent was attending; plans to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; and how many ABE Writing classes were taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE]

Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form); as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Sequential Presentation of Research Question 4 Null Hypotheses (H₀)

Gender

1. There is no significant relationship between gender and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
2. There is no significant relationship between gender and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
3. There is no significant relationship between gender and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

4. There is no significant relationship between gender and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
5. There is no significant relationship between gender and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
6. There is no significant relationship between gender and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
7. There is no significant relationship between gender and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
8. There is no significant relationship between gender and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
9. There is no significant relationship between gender and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
10. There is no significant relationship between gender and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

11. There is no significant relationship between gender and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Age

12. There is no significant relationship between age and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
13. There is no significant relationship between age and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
14. There is no significant relationship between age and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
15. There is no significant relationship between age and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
16. There is no significant relationship between age and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
17. There is no significant relationship between age and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
18. There is no significant relationship between age and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

19. There is no significant relationship between age and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
20. There is no significant relationship between age and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
21. There is no significant relationship between age and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
22. There is no significant relationship between age and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Marital Status

23. There is no significant relationship between marital status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
24. There is no significant relationship between marital status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
25. There is no significant relationship between marital status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

26. There is no significant relationship between marital status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
27. There is no significant relationship between marital status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
28. There is no significant relationship between marital status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
29. There is no significant relationship between marital status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
30. There is no significant relationship between marital status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
31. There is no significant relationship between marital status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
32. There is no significant relationship between marital status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

33. There is no significant relationship between marital status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Racial Identification

34. There is no significant relationship between racial identification and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
35. There is no significant relationship between racial identification and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
36. There is no significant relationship between racial identification and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
37. There is no significant relationship between racial identification and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
38. There is no significant relationship between racial identification and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
39. There is no significant relationship between racial identification and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

40. There is no significant relationship between racial identification and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
41. There is no significant relationship between racial identification and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
42. There is no significant relationship between racial identification and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
43. There is no significant relationship between racial identification and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
44. There is no significant relationship between racial identification and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Employment Status

45. There is no significant relationship between employment status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
46. There is no significant relationship between employment status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

47. There is no significant relationship between employment status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
48. There is no significant relationship between employment status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
49. There is no significant relationship between employment status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
50. There is no significant relationship between employment status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
51. There is no significant relationship between employment status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
52. There is no significant relationship between employment status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
53. There is no significant relationship between employment status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

54. There is no significant relationship between employment status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
55. There is no significant relationship between employment status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which Campus the Respondent was Attending

56. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
57. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
58. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
59. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
60. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational

orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

61. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
62. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
63. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
64. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
65. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

66. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Which ABE Class the Respondent was Attending

67. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
68. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
69. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
70. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
71. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the

motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

72. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
73. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
74. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
75. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
76. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

77. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Mathematics Class

78. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
79. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
80. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
81. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
82. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
83. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation

of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

84. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
85. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
86. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
87. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
88. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Reading Class

89. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
90. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
91. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
92. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
93. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
94. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
95. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of

educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

96. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
97. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
98. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
99. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Plans to Enroll in Another ABE Writing Class

100. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

101. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
102. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
103. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
104. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
105. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
106. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
107. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of

professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

108. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
109. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
110. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Mathematics Classes Were Taken Previously

111. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
112. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

113. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
114. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
115. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
116. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
117. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
118. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

119. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
120. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
121. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Reading Classes Were Taken Previously

122. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
123. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
124. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

125. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
126. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
127. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
128. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
129. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
130. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

131. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
132. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

How Many ABE Writing Classes Were Taken Previously

133. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).
134. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).
135. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).
136. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

137. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
138. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
139. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
140. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
141. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).
142. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational

orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

143. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

Survey Instruments

According to Creswell (2009), a survey provides a quantitative or numeric description of the research sample through the data collection process of asking research participants questions. Using the TPB as a basis, the overall objective of this study was to investigate the relationship between the determinant variables attitude, subjective norm, general self-efficacy, and motivational orientations of adult students enrolled in ABE classes. After a review of studies on factors determining motivational orientations of adult learners by Boshier (1991), and in order to collect the data necessary to examine the research questions and hypothesis underlying this study, a cross-sectional, 80-question, paper-and-pencil survey instrument, consisting of five data collection questionnaires, with one sociodemographic questionnaire and four Likert-type scales, was administered during the Fall 2012 semester, starting on August 23, 2012, and ending on September 27, 2012. Permission was obtained from Boshier (1991) to include the 42 items from his Motivational Orientations EPS A-Form in the 80-question survey instrument. The basic assumption underlying the development of the survey instrument was that adult learners' participation in ABE classes have motivational orientations

which can be measured with a considerable degree of accuracy. The five data collection questionnaires that were used in this survey instrument included:

1. Thirteen-item Sociodemographic Questionnaire (created by researcher),
2. Nine-item Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (Blunt & Yang, 2002),
3. Four-item Subjective Norm Direct Measure [SNDM] Scale (Davis et al., 2002),
4. Twelve-item General Self-Efficacy [GSE] Scale (Bosscher & Smit, 1998), and
5. Forty-two-item Education Participation Scale (Motivational Orientation EPS A-Form) (Boshier, 1991).

According to Cohen et al. (2003), when using Likert-type scales, it is imperative to calculate and report Cronbach's alpha coefficient for internal consistency reliability for any scales or subscale. The reliability analyses of the five instruments in the survey instrument will be discussed next.

Reliability Analyses

A common standard for acceptable internal consistency reliability consists of Cronbach's alpha scores of .70 or above (Cohen et al., 2003). Reliability analyses were conducted on the five data collection questionnaires in order to ensure that the scale items had an acceptable level of internal consistency reliability. Table 8 summarizes the internal consistency reliability analyses conducted on the scale measures included in this study. These analyses were conducted utilizing Cronbach's alpha, with these results presented in the following Table 8. Marginal reliability was found with regard to the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (Cronbach's Alpha = .545). Acceptable reliability was found with regard to the Subjective Norm

Direct Measure [SNDM] Scale (Cronbach's Alpha = .776). Marginal reliability was found with regard to the General Self-Efficacy [GSE] Scale (Cronbach's Alpha = .649). Acceptable reliability was found with regard to Boshier's (1991) Motivational Orientation EPS A-Form (Cronbach's Alpha = .952). Acceptable reliability was found with regard to each of the seven individual motivational orientations: motivational orientation of communication improvement (Cronbach's Alpha = .904), motivational orientation of social contact (Cronbach's Alpha = .946), motivational orientation of educational preparation (Cronbach's Alpha = .705), motivational orientation of professional advancement (Cronbach's Alpha = .888), motivational orientation of family togetherness (Cronbach's Alpha = .905), motivational orientation of social stimulation (Cronbach's Alpha = .901), and motivational orientation of cognitive interest (Cronbach's Alpha = .837).

Table 8

Reliability Analyses

Variables Scale Measures	Survey Questions	n of Questions	Cronbach's Alpha
Revised Adult Attitudes Toward Continuing Education [RAACE] Scale	Q14-Q22	9	.545
Subjective Norm Direct Measure [SNDM] Scale	Q23-Q26	4	.776
General Self-Efficacy [GSE] Scale	Q27-Q38	12	.649
Motivational Orientation EPS A-Form:	Q39-Q80	42	.952
Communication Improvement	Q39-Q44	6	.904
Social Contact	Q45-Q50	6	.946
Educational Preparation	Q51-Q56	6	.705
Professional Advancement	Q57-Q62	6	.888
Family Togetherness	Q63-Q68	6	.905
Social Stimulation	Q69-Q74	6	.901
Cognitive Interest	Q75-Q80	6	.837

Focus on Survey Questions With Median and Interquartile Range

Initially, a series of descriptive statistics were conducted on the variables of interest within this study in order to better describe this sample of respondents. Table 9 summarizes the results of these analyses, which include the valid (non-missing) and missing sample sizes, along with the descriptive statistics conducted on all continuous variables included in this study. If a variable can take on any value between its minimum value and its maximum value, it is called a continuous variable (Cohen et al., 2003). Continuous variables are numeric values that can be ordered sequentially, and have values in between points, that do not naturally fall into discrete ranges. Statistics reported consist of the total and missing sample sizes, mean (\bar{x}) and median values, standard deviations, minimum and maximum scores, as well as the lower and upper bounds of the interquartile range, corresponding with the 25th and 75th percentiles. As the majority of these variables are ordinal, the median, as well as the interquartile range may present the best estimations of the central tendency and variability of these measures. With regard to the number of classes taken, the average number was found to approximate 1 with regard to ABE mathematics classes, ABE reading classes, as well as ABE writing classes, with standard deviations approximating 1.4. Additionally, with respect to the scale items, median values were most typically 3 or 4 with the interquartile range indicating a range of 1 or 2 in most cases. The descriptive statistics are shown in Table 9.

Table 9

t Descriptive Statistics: Focus on Survey Questions With Median and Interquartile Range

<i>n</i> = 600								Interquartile Range Percentiles	
	Valid Total	Missing Total	Mean (\bar{x})	Median	SD	Min.	Max.	Lower 25th	Upper 75th
Revised Adult Attitudes Toward Continuing Education [RAACE] Scale = 9 questions Q14-Q22									
Q14	Continuing education is mostly for people with little else to do.								
	598	2	1.85	1	1.033	1	4	1.00	2.00
Q15	I dislike studying.								
	596	4	1.87	2	0.897	1	4	1.00	2.00
Q16	Successful people do not need continuing education.								
	591	9	1.49	1	0.736	1	4	1.00	2.00
Q17	I am fed up with teachers and classes.								
	595	5	1.63	1	0.869	1	4	1.00	2.00
Q18	Money spent on continuing education for employees is money well spent.								
	598	2	3.20	3	0.932	1	4	3.00	4.00
Q19	Continuing my education would make me feel better about myself.								
	593	7	3.72	4	0.662	1	4	4.00	4.00
Q20	I enjoy educational activities that allow me to learn with others.								
	597	3	3.58	4	0.695	1	4	3.00	4.00
Q21	Continuing education is an important way to help people cope with changes in their lives.								
	600	0	3.48	4	0.740	1	4	3.00	4.00
Q22	Continuing education helps people make better use of their lives.								
	598	2	3.61	4	0.664	1	4	3.00	4.00
Subjective Norm Direct Measure [SNDM] Scale = 4 questions Q23-Q26									
Q23	People who are important to me think I should enroll in an ABE class.								
	600	0	3.01	3	0.954	1	4	2.00	4.00
Q24	People who are important to me would be disappointed if I did not enroll in an ABE class.								
	599	1	2.48	2	1.097	1	4	2.00	3.00
Q25	People who are important to me expect me to enroll in an ABE class.								
	599	1	2.75	3	1.045	1	4	2.00	4.00
Q26	People who are important to me are supportive of me enrolling in an ABE class.								
	599	1	3.38	4	0.843	1	4	3.00	4.00
General Self-Efficacy [GSE] Scale = 12 questions Q27-Q38									
Q27	If something looks too complicated I will not even bother to try it.								
	600	0	1.78	2	0.899	1	4	1.00	2.00
Q28	I avoid trying to learn new things when they look too difficult.								
	600	0	1.74	1	0.934	1	4	1.00	2.00

(table continues)

<i>n</i> = 600								<i>Interquartile Range Percentiles</i>	
	<i>Valid Total</i>	<i>Missing Total</i>	<i>Mean</i> (\bar{x})	<i>Median</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>Lower 25th</i>	<i>Upper 75th</i>
Q29	When trying to learn something new, I soon give up if I am not initially successful.								
	600	0	1.74	1	0.899	1	4	1.00	2.00
Q30	When I make plans, I am certain I can make them work.								
	600	0	3.40	3	0.697	1	4	3.00	4.00
Q31	If I cannot do a job the first time, I keep trying until I can.								
	600	0	3.60	4	0.600	1	4	3.00	4.00
Q32	When I have something unpleasant to do, I stick to it until I finish it.								
	597	3	3.35	3	0.739	1	4	3.00	4.00
Q33	When I decide to do something, I go right to work on it.								
	599	1	3.49	4	0.679	1	4	3.00	4.00
Q34	Failure just makes me try harder.								
	600	0	3.48	4	0.746	1	4	3.00	4.00
Q35	When I set important goals for myself, I rarely achieve them.								
	600	0	2.27	2	1.050	1	4	1.00	3.00
Q36	I do not seem capable of dealing with most problems that come up in my life.								
	600	0	1.97	2	0.941	1	4	1.00	3.00
Q37	When unexpected problems occur, I do not handle them very well.								
	599	1	1.98	2	0.921	1	4	1.00	3.00
Q38	I feel insecure about my ability to do things.								
	599	1	2.06	2	1.010	1	4	1.00	3.00
Motivational Orientations EPS A-Form = Q39-Q80									
Motivational Orientation of Communication Improvement = 6 questions Q39-Q44									
Q39	To improve language skills.								
	600	0	3.36	4	0.909	1	4	3.00	4.00
Q40	To speak better.								
	600	0	3.23	4	1.010	1	4	3.00	4.00
Q41	To learn another language.								
	597	3	2.84	3	1.163	1	4	2.00	4.00
Q42	To write better.								
	597	3	3.04	4	0.866	1	4	3.00	4.00
Q43	To help me understand what people are saying and writing.								
	597	3	3.24	4	0.982	1	4	3.00	4.00
Q44	To learn about the usual customs here.								
	597	3	3.02	3	1.072	1	4	2.00	4.00

(table continues)

<i>n</i> = 600								<i>Interquartile Range Percentiles</i>	
	<i>Valid Total</i>	<i>Missing Total</i>	<i>Mean</i> (\bar{x})	<i>Median</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>Lower 25th</i>	<i>Upper 75th</i>
Motivational Orientation of Social Contact = 6 questions Q45-Q50									
Q45	To become acquainted with friendly people.								
	600	0	3.02	3	0.973	1	4	2.00	4.00
Q46	To have a good time with friends.								
	600	0	2.77	3	1.098	1	4	2.00	4.00
Q47	To meet different people.								
	599	1	3.10	3	0.947	1	4	3.00	4.00
Q48	To make friends.								
	600	0	2.85	3	1.038	1	4	2.00	4.00
Q49	To make new friends.								
	598	2	2.87	3	1.032	1	4	2.00	4.00
Q50	To meet new people.								
	599	1	3.05	3	0.944	1	4	3.00	4.00
Motivational Orientation of Educational Preparation = 6 questions Q51-Q56									
Q51	To pass the GED test.								
	600	0	2.64	3	1.301	1	4	1.00	4.00
Q52	To get the required score on the Accuplacer test.								
	597	3	3.66	4	0.695	1	4	4.00	4.00
Q53	To acquire knowledge to help with other educational courses.								
	598	2	3.58	4	0.730	1	4	3.00	4.00
Q54	To prepare for further education.								
	597	3	3.70	4	0.621	1	4	4.00	4.00
Q55	To do courses needed for another school or college.								
	600	0	3.20	4	1.043	1	4	3.00	4.00
Q56	To get entrance to another school or college.								
	600	0	3.06	3	1.080	1	4	2.00	4.00
Motivational Orientation of Professional Advancement = 6 questions Q57-Q62									
Q57	To secure professional advancement.								
	599	1	3.51	4	0.745	1	4	3.00	4.00
Q58	To achieve an occupational goal.								
	599	1	3.61	4	0.672	1	4	3.00	4.00
Q59	To prepare for getting a job.								
	596	4	3.56	4	0.757	1	4	3.00	4.00
Q60	To give me higher status in my job.								
	600	0	3.38	4	0.900	1	4	3.00	4.00

(table continues)

<i>n</i> = 600								<i>Interquartile Range Percentiles</i>	
	<i>Valid Total</i>	<i>Missing Total</i>	<i>Mean (\bar{x})</i>	<i>Median</i>	<i>SD</i>	<i>Min.</i>	<i>Max.</i>	<i>Lower 25th</i>	<i>Upper 75th</i>
Q61 To get a better job.	600	0	3.57	4	0.776	1	4	3.00	4.00
Q62 To increase my job competence	599	1	3.47	4	0.815	1	4	3.00	4.00
Q63 To get ready for changes in my family.	599	1	3.22	4	0.970	1	4	3.00	4.00
Motivational Orientation of Family Togetherness = 6 questions Q63-Q68									
Q64 To share a common interest with my spouse.	596	4	2.71	3	1.131	1	4	2.00	4.00
Q65 To keep up with others in my family.	599	1	2.76	3	1.105	1	4	2.00	4.00
Q66 To keep up with my children.	595	5	2.67	3	1.185	1	4	2.00	4.00
Q67 To answer questions asked by my children.	599	1	2.084	3	1.170	1	4	2.00	4.00
Q68 To help me talk with my children.	598	2	2.77	3	1.186	1	4	2.00	4.00
Motivational Orientation of Social Stimulation = 6 questions Q69-Q74									
Q69 To overcome the frustration of day to day living.	598	2	2.93	3	1.093	1	4	2.00	4.00
Q70 To get away from loneliness.	598	2	2.44	2	1.150	1	4	1.00	4.00
Q71 To get relief from boredom.	597	3	2.56	2	1.127	1	4	2.00	4.00
Q72 To get a break in the routine of home or work.	596	4	2.57	3	1.120	1	4	2.00	4.00
Q73 To do something rather than nothing.	597	3	3.05	3	1.119	1	4	2.00	4.00
Q74 To escape an unhappy relationship.	599	1	2.12	2	1.157	1	4	1.00	3.00
Motivational Orientation of Cognitive Interest = 6 questions Q75-Q80									
Q75 To get something meaningful out of life.	600	0	3.53	4	0.817	1	4	3.00	4.00
Q76 To acquire general knowledge.	600	0	3.62	4	0.654	1	4	3.00	4.00
Q77 To learn just for the joy of learning.	600	0	3.18	3	0.979	1	4	3.00	4.00
Q78 To satisfy my inquiring mind.	599	1	3.35	4	0.860	1	4	3.00	4.00
Q79 To seek knowledge for its own sake.	599	1	3.33	4	0.876	1	4	3.00	4.00
Q80 To expand my mind.	598	2	3.65	4	0.612	1	4	3.00	4.00

Next, analyses were conducted in order to explore the most common reasons given for participation in ABE classes, focusing upon each of the seven motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. Descriptive statistics associated with these variables are summarized in Table 10. The most common reason given for participation in ABE classes consisted of the motivational orientation of professional advancement ($M = 3.52$, $SD = .622$), with the second most common reason given consisting of the motivational orientation of cognitive interest ($M = 3.44$, $SD = .602$). The motivational orientation of social stimulation was provided as an answer least commonly ($M = 2.62$, $SD = .923$), with the motivational orientation of family togetherness provided as the second least frequent answer ($M = 2.83$, $SD = .930$).

Additional descriptive statistics were also conducted in order to further describe these data. Table 11 presents a set of descriptive statistics conducted on the scale items included within this study. Mean values were found to range from approximately 2.6 to 2.9, with standard deviations varying from approximately .37 to .76 among these items.

Table 10

Descriptive Statistics: Focusing on the Seven Motivational Orientations as Measured by Boshier's (1991) Motivational Orientation EPS A-Form

<i>Variable</i>	<i>N</i>		<i>Mean</i> (\bar{x})	<i>SD</i>
	<i>Valid Total</i>	<i>Missing Total</i>		
Motivational Orientation of Communication Improvement	589	11	3.185	.826
Motivational Orientation of Social Contact	596	4	2.943	.894
Motivational Orientation of Educational Preparation	592	8	3.305	.599
Motivational Orientation of Professional Advancement	595	5	3.523	.622
Motivational Orientation of Family Togetherness	590	10	2.829	.930
Motivational Orientation of Social Stimulation	590	10	2.615	.923
Motivational Orientation of Cognitive Interest	596	4	3.444	.602

Table 11

Descriptive Statistics: Focusing on Survey Scales

<i>Variable</i>	<i>n</i>		<i>Mean</i> (\bar{x})	<i>SD</i>
	<i>Valid Total</i>	<i>Missing Total</i>		
RAACE Scale	600	0	2.715	.373
SNDM Scale	600	0	2.905	.764
GSE Scale	600	0	2.572	.390

Presentation of Statistics

In order to identify the motivational orientations contributing to the adult student's decision to enroll in ABE classes, the responses to the 80 items of the survey were analyzed. This section will describe various statistical methods that were used in this study. To present the data in an effective manner, the chapter is organized around the null hypotheses presented in Chapter Three. Taking each hypothesis in turn, the null hypothesis is stated and the variables involved are indicated. The data were analyzed using appropriate quantitative techniques, and are presented in tables that describe the

outcomes of the study. Each table is discussed in the text before it is presented. The data results are interpreted. Interpretation transforms the results of the data analysis into the findings of the study; in other words, interpreted data analysis results become the findings of the research study (Cohen et al., 2003). Interpretation squeezes meaning out of the accumulation of data. All hypotheses were tested, tables are presented, and the findings related to its testing are presented. Additionally, before explaining testing the hypothesis, a profile of the sample is provided.

Profile of the Sample

The study sample consisted of 600 respondents. The respondents, enrolled in ABE classes (i.e., mathematics, reading, and writing), volunteered to participate in the study. This section will consider the following characteristics of the respondents: gender, age, marital status, racial identification, employment status, which campus the respondent was attending, and which ABE class the respondent was attending. These data are included for descriptive purposes. The following student characteristics are also considered for descriptive purposes: Plans to enroll in a (or another) ABE mathematics class, plans to enroll in a (or another) ABE reading class, plans to enroll in a (or another) ABE writing class, how many ABE mathematics classes were taken previously, how many ABE reading classes were taken previously, and how many ABE writing classes were taken previously. These characteristics have been included in the present study, in part, because they help to provide a demographic break down of the study sample. In addition, these characteristics are treated as especially significant characteristics in this study. A series of frequency tables was constructed for the student characteristics of

interest, to further explore the distribution of responses present within these data. Table 12 through Table 24 profiles the sample according to the respondent characteristics.

Gender

Table 12 summarizes descriptive statistics conducted on respondent gender, with the statistics included consisting of sample size, percentage, valid percentage, and cumulative percentage. Figure 5 presents this information graphically. As shown, over 62% of the sample was found to be female, while close to 38% of this sample was found to consist of male respondents.

Table 12

Descriptive Statistics: Gender

Category	<i>n</i> = 600	%	Valid%	Cum. %
Female	375	62.5	62.5	62.5
Male	225	37.5	37.5	100.0
Total	600	100.0	100.0	

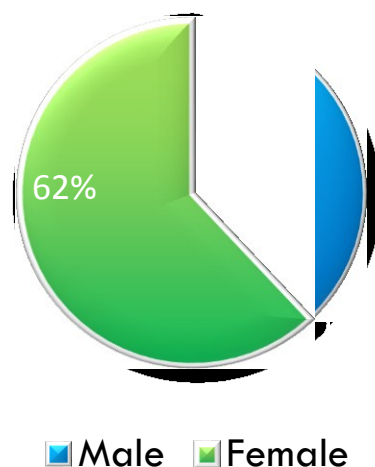


Figure 5. Descriptive statistics for gender.

Age

With regard to respondent age, as indicated in Table 13 and Figure 6, over 28% of respondents were found to be 18 or 19 years of age, while over 16% were found to be 20 or 21 years of age. Over 11% of respondents were found to be 22-24, 25-29, 30-39, and 40-49, respectively, while under 8% of respondents were found to be aged 50 or older.

Table 13

Descriptive Statistics: Age

Category	N	%	Valid%	Cum. %
18 to 19	170	28.3	28.3	28.3
20 to 21	98	16.3	16.3	44.7
22 to 24	70	11.7	11.7	56.3
25 to 29	68	11.3	11.3	67.7
30 to 39	78	13.0	13.0	80.7
40 to 49	72	12.0	12.0	92.7
50 to 59	37	6.2	6.2	98.8
60+	7	1.2	1.2	100.0
Total	600	100.0	100.0	

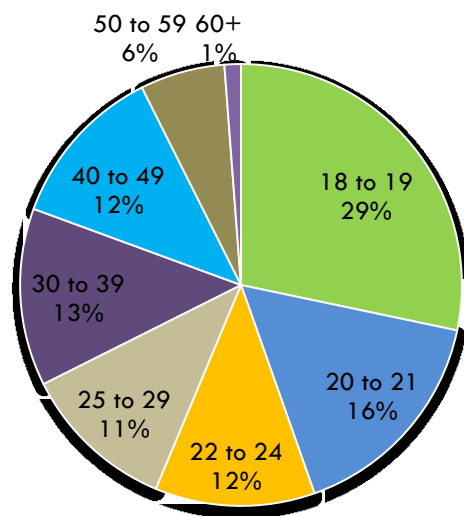


Figure 6. Descriptive statistics for age.

Marital Status

Next, with regard to marital status, as shown in Table 14 and Figure 7, the vast majority of respondents, nearly 83%, were found to be currently single, while close to 14% of respondents were married. Close to 4% of individuals were found to be divorced.

Table 14

Descriptive Statistics: Marital Status

Category	N	%	Valid%	Cum. %
Single	492	82.0	82.7	82.7
Married	81	13.5	13.6	96.3
Divorced	22	3.7	3.7	100.0
Total	595	99.2	100.0	
Missing	5	.8		
Total	600	100.0		

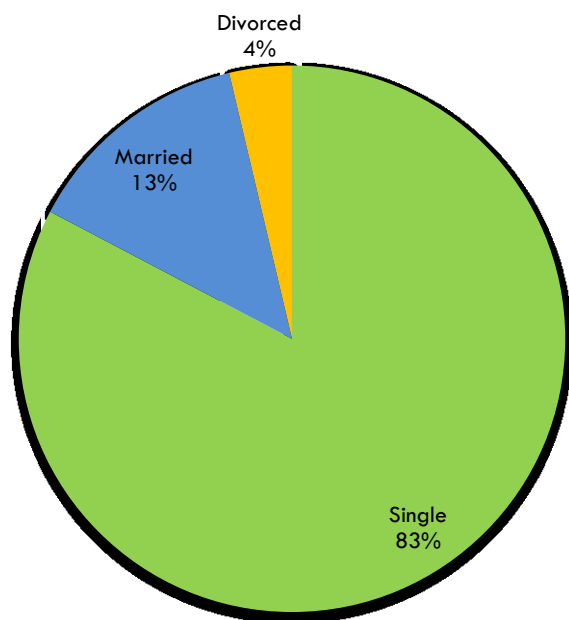


Figure 7. Descriptive statistics for marital status.

Racial Identification

Table 15 and Figure 8 summarize descriptive statistics with respect to respondent racial identification. Over 59% of respondents in this sample were found to be Black or African-American, with close to 16% of respondents being Hispanic, Latino, or Spanish. Eleven percent of respondents were found to be Caucasian or White, with each of the remaining racial categories composing less than 10% of the sample each: American Indian/Native American (2.2%), Asian/Pacific Islander (6.3%), mixed race (3.0%), and other (2.5%). Slightly over 6% of the respondents reported being Asian/Pacific Islander. Less than 8% of respondents in total were found to be Native American, of mixed race, or of another race.

Table 15

Descriptive Statistics: Racial Identification

Category	<i>n</i>	%	Valid%	Cum. %
American Indian/Native American	13	2.2	2.2	2.2
Asian/Pacific Islander	38	6.3	6.3	8.5
African-American, Non-Hispanic	356	59.3	59.3	67.8
Caucasian, Non-Hispanic	66	11.0	11.0	78.8
Hispanic, Latino, or Spanish	94	15.7	15.7	94.5
Mixed Race	18	3.0	3.0	97.5
Other	15	2.5	2.5	100.0
Total	600	100.0	100.0	

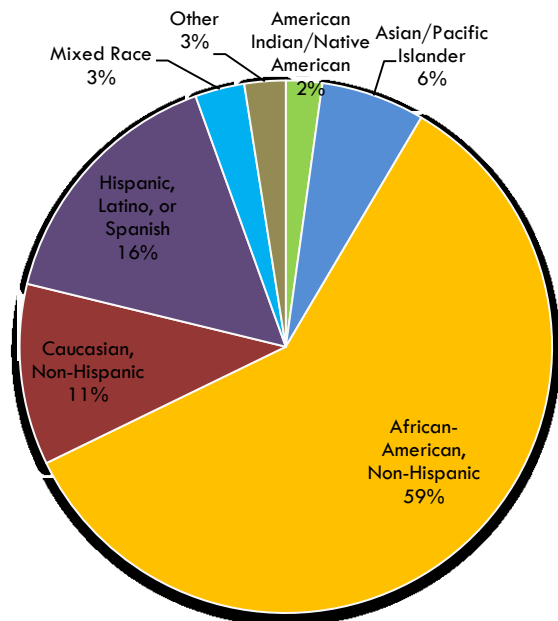


Figure 8. Descriptive statistics for racial identification.

Employment Status

Next, descriptive statistics were conducted on respondent employment status. As presented in Table 16 and Figure 9, 56% of respondents were found to be not currently employed, with 27% of respondents being currently employed part-time. Additionally, close to 17% of respondents were found to be currently employed full-time.

Table 16

Descriptive Statistics: Employment Status

Category	<i>n</i>	%	Valid%	Cum. %
Full-time	101	16.8	16.9	16.9
Part-time	161	26.8	27.0	44.0
Not employed	334	55.7	56.0	100.0
Total	596	99.3	100	
Missing	4	.7		
Total	600	100.0	100.0	

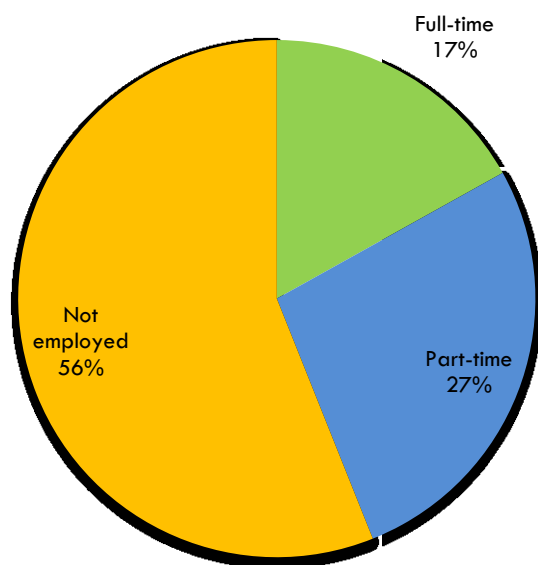


Figure 9. Descriptive statistics for employment status.

Which ABE Campus the Respondent was Attending

Next, Table 17 and Figure 10, presented below, summarize which campus the respondent was attending at the time the survey was taken. Responses were very evenly split between the respondents attending the urban campus and the respondents attending the suburban campus. Each of the two campuses comprised approximately 50% of the sample. The data results are shown in Table 17 and Figure 10.

Table 17

Descriptive Statistics: Campus Attending

Category	<i>n</i>	%	Valid%	Cum. %
Urban campus	295	49.2	49.7	49.7
Suburban campus	298	49.7	50.3	100.0
Total	593	98.8	100.0	
Missing	7	1.2		
Total	600	100.0	100.0	

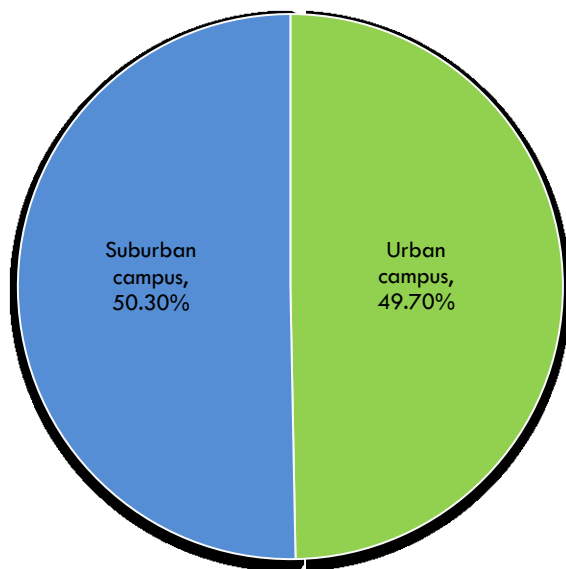


Figure 10. Descriptive statistics for which campus the respondent was attending.

Which ABE Class the Respondent was Attending

Table 18 and Figure 11 summarize responses relating to which ABE class the respondent was attending at the time the survey was taken. Respondents were nearly evenly split between those attending an ABE mathematics class, those attending an ABE reading class, and those attending an ABE writing class. Each case composed approximately one-third of the sample.

Table 18

Descriptive Statistics: Which ABE Class the Respondent was Attending

Category	N	%	Valid%	Cum. %
ABE Mathematics Class	192	32.0	32.7	32.7
ABE Reading Class	200	33.3	34.1	66.8
ABE Writing Class	195	32.5	33.2	100.0
Total	587	97.8	100.0	
Missing	13	2.2		
Total	600	100.0	100.0	

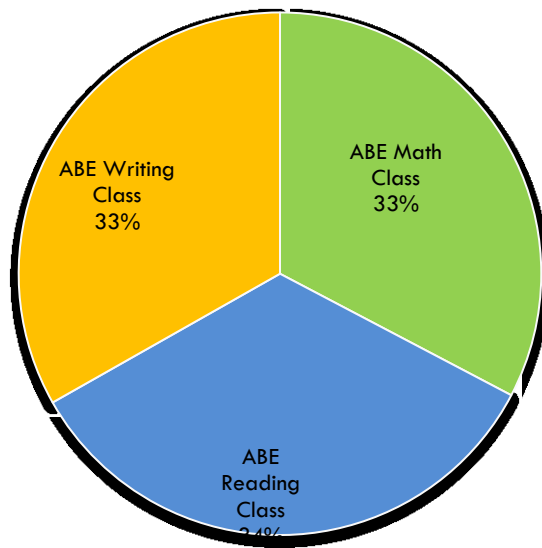


Figure 11. Descriptive statistics for which ABE class the respondent was attending

Plans To Enroll in a (or Another) ABE Mathematics Class

Descriptive statistics were also conducted on when the respondent planned to enroll in another ABE class (i.e., mathematics, reading, and writing). First, with regard to ABE mathematics classes, Table 19 and Figure 12 show nearly 39% of individuals were planning to enroll in an ABE mathematics class next semester, with over 38% indicating that they were not sure. Close to 18% of respondents had no current plans to enroll, while slightly above 5% indicated that they had planned to enroll in an ABE mathematics class within the next year.

Table 19

Descriptive Statistics: Plan to Enroll in a (or Another) ABE Mathematics Class

Category	N	%	Valid%	Cum. %
Next semester	231	38.5	38.7	38.7
Within the next year	31	5.2	5.2	43.9
No plan to enroll	107	17.8	17.9	61.8
Not sure	228	38.0	38.2	100.0
Total	597	99.5	100.0	
Missing	3	.5		
Total	600	100.0	100.0	

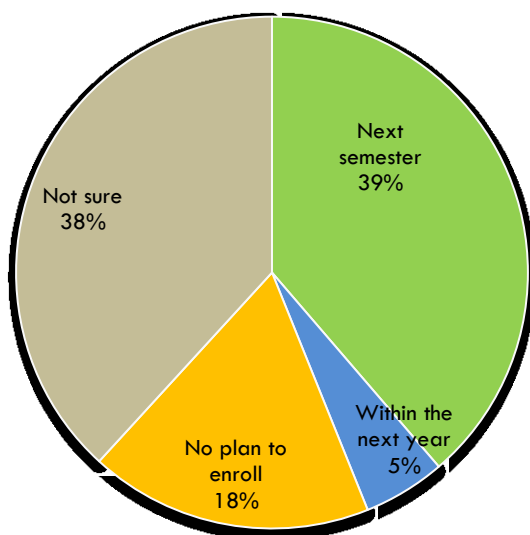


Figure 12. Descriptive statistics for plans to enroll in another ABE mathematics class.

Plans to Enroll in a (or Another) ABE Reading Class

Table 20 and Figure 13 summarize respondents' plans to enroll in an ABE reading class. Over 38% of respondents were unsure regarding their plans to enroll, while 33% of this sample planned to enroll in an ABE reading class next semester. Additionally, close to 22% of respondents had no current plans to enroll, while close to 7% of individuals were planning to enroll in an ABE reading class within the next year.

Table 20

Descriptive Statistics: Plan to Enroll in a (or Another) ABE Reading Class

Category	N	%	Valid%	Cum. %
Next semester	198	33.0	33.0	33.0
Within the next year	41	6.8	6.8	39.8
No plan to enroll	131	21.8	21.8	61.7
Not sure	230	38.3	38.3	100.0
Total	600	100.0	100.0	

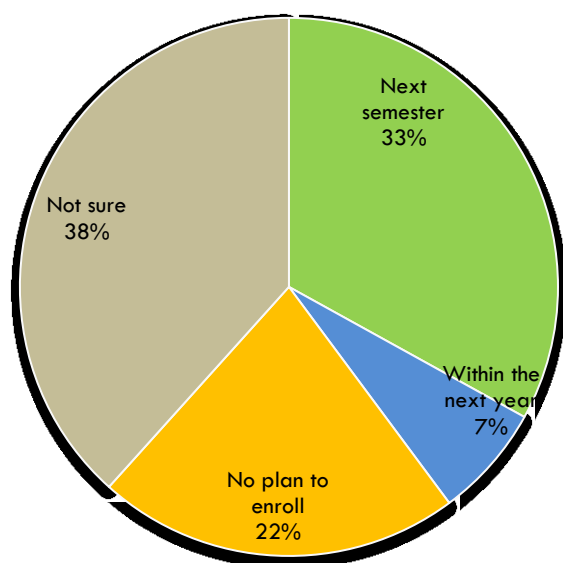


Figure 13. Descriptive statistics for plans to enroll in another ABE reading class.

Plans to Enroll in a (or Another) ABE Writing Class

Finally, Table 21 and Figure 14 summarize respondents' plans to enroll in an ABE writing class. Close to 40% of respondents were unsure regarding their plans to enroll, while 33.7% of this sample planned to enroll in an ABE writing class next semester. Additionally, over 21% of individuals had no current plans to enroll, while close to 7% planned to enroll within the next year.

Table 21

Descriptive Statistics: Plan to Enroll in a (or Another) ABE Writing Class

Category	N	%	Valid%	Cum. %
Next semester	202	33.7	33.7	33.7
Within the next year	34	5.7	5.7	39.3
No plan to enroll	127	21.2	21.2	60.5
Not sure	237	39.5	39.5	100.0
Total	600	100.0	100.0	

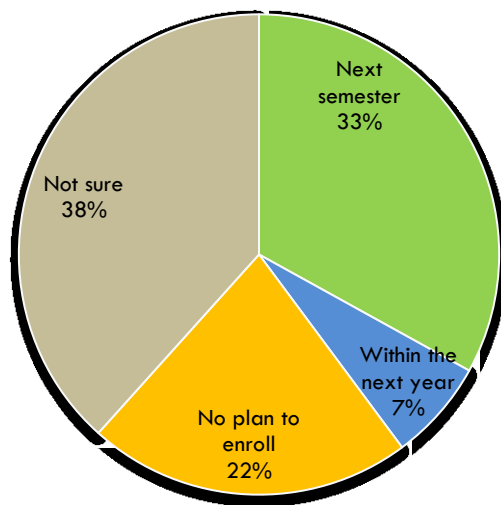


Figure 14. Descriptive statistics for plans to enroll in another ABE writing class.

How Many ABE Mathematics Classes Were Taken Previously

Next, descriptive statistics were conducted on the number of ABE classes taken previously (i.e., mathematics, reading, and writing). First, Table 22 and Figure 15 summarize descriptive statistics conducted on the number of ABE mathematics classes the respondent had taken previously. Close to 50% of the sample had not taken an ABE mathematics class previously, while close to 31% of respondents had taken one class in the past. Slightly over 11% of respondents had taken two ABE mathematics classes

previously, while less than 10% of respondents in total had taken more than two classes in the past.

Table 22

Descriptive Statistics: How Many ABE Mathematics Classes Were Taken Previously

Category	<i>n</i>	%	Valid%	Cum. %
None	293	48.8	48.8	48.8
1	184	30.7	30.7	79.54
2	67	11.2	11.2	90.7
3	26	4.3	4.3	95.0
4	16	2.7	2.7	97.7
5	7	1.2	1.2	98.8
9	2	.3	.3	99.2
10 or more	5	.8	.8	100.0
Total	600	100.0	100.0	

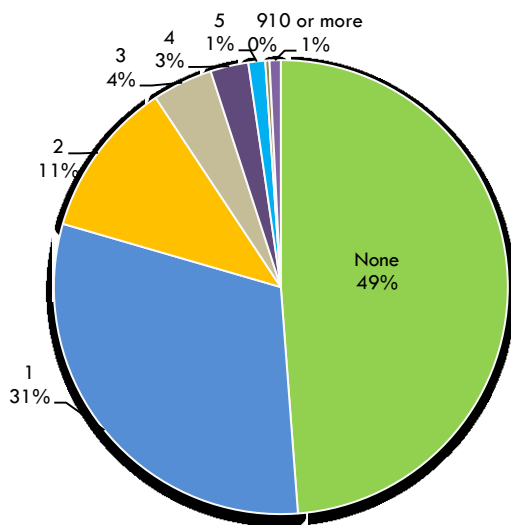


Figure 15. Descriptive statistics for the number of ABE mathematics classes taken previously.

How Many ABE Reading Classes Were Taken Previously

Table 23 and Figure 16 focus upon the number of ABE reading classes taken previously. Again, close to 50% of the sample had not taken an ABE reading class

previously, while 31.7 % of respondents had taken one ABE reading class in the past.

Close to 12% of respondents had taken two ABE classes previously, while less than 9%

of respondents in total had taken more than two ABE classes in the past.

Table 23

Descriptive Statistics: How Many ABE Reading Classes Were Taken Previously

Category	N	%	Valid%	Cum. %
None	289	48.2	48.2	48.2
1	190	31.7	31.7	79.8
2	71	11.8	11.8	91.7
3	23	3.8	3.8	95.5
4	13	2.2	2.2	97.7
5	7	1.2	1.2	98.8
6	3	.5	.5	99.3
9	1	.2	.2	99.5
10 or more	3	.5	.5	100.0
Total	600	100.0	100.0	

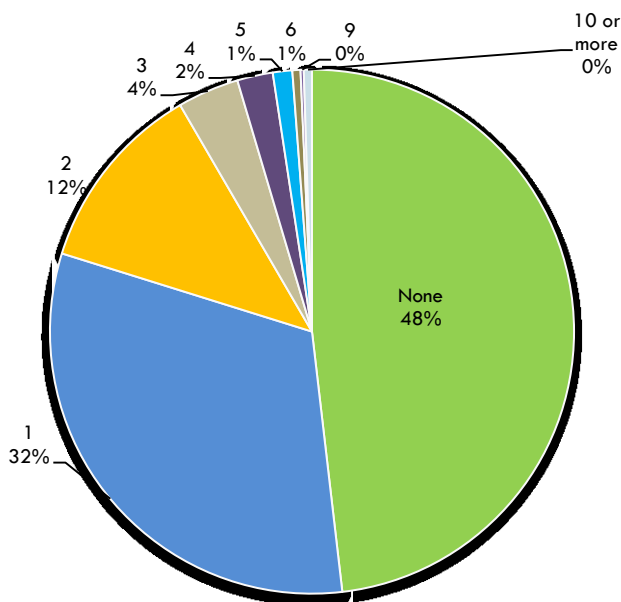


Figure 16. Descriptive statistics for the number of ABE reading classes taken previously.

How Many ABE Writing Classes Were Taken Previously

Finally, Table 24 and Figure 17 present descriptive statistics associated with the number of ABE writing classes taken previously. Slightly over 50% of the sample had not taken any ABE writing classes previously, with nearly 30% having taken one in the past. Close to 10% of respondents had taken two ABE writing classes previously, while under 9% of respondents in total had taken more than two ABE writing classes previously.

Table 24

Descriptive Statistics: How Many ABE Writing Classes Were Taken Previously

Category	<i>n</i>	%	Valid%	Cum. %
None	310	51.8	51.8	51.8
1	179	29.8	29.8	81.6
2	59	9.9	9.9	91.5
3	24	4.0	4.0	95.5
4	12	2.0	2.0	97.5
5	4	.7	.7	98.2
6	6	1.0	1.0	99.2
9	1	.1	.1	99.3
10 or more	4	.7	.7	100.0
Total	599	99.9	100.0	
Missing	1	.1		
Total	600	100.0		

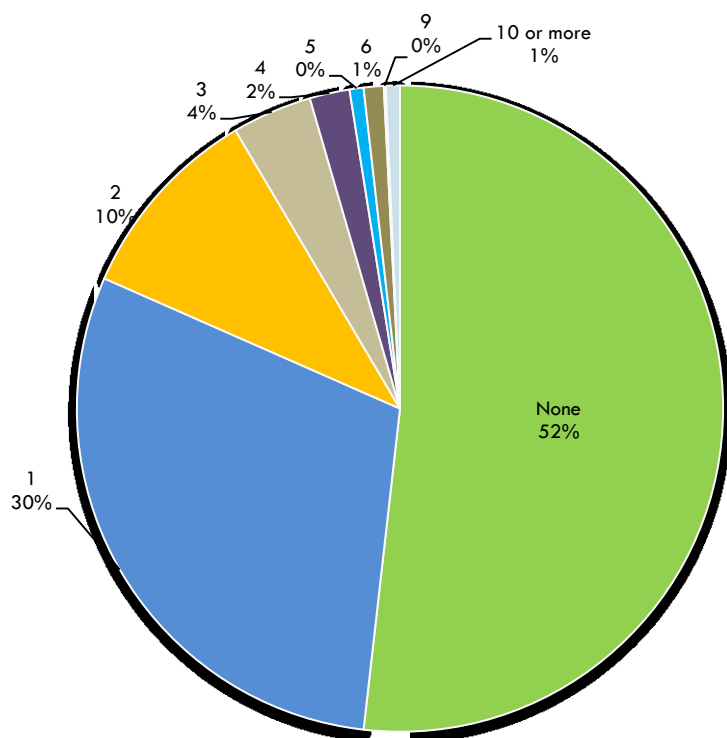


Figure 17. Descriptive statistics for the number of ABE writing classes taken previously.

Summary of Student Profile

In summary, awareness of the characteristics of ABE students is an important first step in meeting their needs, and this is the purpose of providing a profile of the research sample. In research, a sample is selected to learn more about the population of interest. In this study, the sample was ABE students who attended ABE classes at a southeastern Wisconsin community college. The method in which more information is learned about the sample population is called hypothesis testing (Cohen, et al., 2003). Cohen et al. (2003) explained that hypothesis testing is really a systematic way to test claims or ideas about a sample population using data measured in a sample. In other words, the reason for hypothesis testing is to gain knowledge about a sample population. In hypothesis testing, the hypothesis is tested to determine the likelihood that a sample statistic could have been selected, if the hypothesis regarding the sample population parameter were true. In the next section, a series of statistics will be used to determine the probability that the given hypothesis is true.

Hypotheses are created from the research questions formulated (Cooper & Schindler, 2011). The basic logic of hypothesis testing is to prove or disprove the research question. A research question usually leads directly into the hypotheses of the research. According to Cohen et al. (2003), hypotheses are more specific predictions about the nature and direction of the relationship between two variables. Hypotheses give insight into a research question and give a hint on what will be found when the research question is answered. In Chapter Three, a series of hypotheses were designed to explore the relationship between attitude, subjective norm, general self-efficacy, and each of the seven individual motivational orientations (motivational orientation of

communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest) among the study sample.

In this section, statistical hypothesis tests will be used to make a decision about whether to reject or accept the null hypothesis based on a prespecified level of significance. The null hypothesis usually predicts there is no relationship between the independent and dependent variables (Cohen et al., 2003). In statistics, a hypothesis test result is called statistically significant if it has been predicted as unlikely to have occurred by chance alone. A statistical significance test is the predecessor to the statistical hypothesis test (Cohen et al., 2003). According to Cohen et al. (2003), in hypothesis testing, the goal is to see if the probability value (p -value) is less than or equal to the significance level (p -value \leq alpha). In this study, the researcher specified the significance level of .05. Consequently, this means there is less than a 5% chance that a relationship between the independent and dependent variables would occur by chance (Cohen et al., 2003). Hence, the researcher selected two decision-making rules of null hypothesis testing for this study:

Rule 1: If the p -value is less than or equal to the significance level of .05, reject the null hypothesis, accept the alternative hypothesis, and conclude that the research finding is statistically significant (Cohen et al., 2003).

Rule 2: If the p -value is greater than the significance level of .05, accept the null hypothesis, reject the alternative hypothesis, and conclude that the research finding is not statistically significant (Cohen et al., 2003).

Statistics is the science of collecting, organizing, summarizing, analyzing, and making inferences from data (Cohen et al., 2003). Statistics are helpful in analyzing most collections of data. This is equally true of statistical hypothesis testing. For identifying meaningful statistical results and establishing a threshold of statistical evidence, the following statistical hypothesis test was used, in this study, to add mathematical rigor, philosophical consistency and draw conclusions from the collected data.

Independent Samples t -test

The independent samples t -test was used to make a comparison between two independent groups (i.e., “female” and “male”) (Cohen et al., 2003). As such, the next section of this study will compare whether two unrelated groups (females and males) have different means (average values) based on the same given dependent variable. In order to evaluate the mean difference between females and males, this study looked at whether females and males (independent variables) significantly differed based on each of the given dependent variables (attitude, subjective norm, general self-efficacy, motivational orientation, the motivational orientation of communication improvement, the motivational orientation of social contact, the motivational orientation of educational preparation, the motivational orientation of professional advancement, the motivational orientation of family togetherness, the motivational orientation of social stimulation, and the motivational orientation of cognitive interest). Note that the independent samples t -

test was applied to answer the null hypothesis in Research Question 4 in regard to gender, the results of which are rendered in Table 28 and Table 29.

Pearson's Correlation

Correlation between variables is a measure of how well the variables are related. The most common measure of correlation in statistics is Pearson's correlation, which measures the strength and direction of the linear relationship between two variables. According to Cohen et al (2003), Pearson's correlation is a single summary number that gives a good idea about how closely one variable is related to another variable. The symbol used to identify Pearson's correlation is a lower case "*r*." Pearson's correlations range in value from -1.00 to +1.00. A Pearson's correlation (*r*) of -1.00 indicates that there is a perfect negative relationship between the two variables. This means that as values on one variable increase there is a perfectly predictable decrease in values on the other variable. In other words, as one variable goes up, the other goes in the opposite direction (it goes down).

A Pearson's correlation (*r*) of +1.00 indicates that there is a perfect positive relationship between the two variables. This means that as values on one variable increase there is a perfectly predictable increase in values on the other variable. In other words, as one variable goes up, the other variable will also go up. A Pearson's correlation (*r*) of 0.00 indicates that there is a zero correlation, or no relationship, between the two variables. In other words, as one variable changes (goes up or down) it cannot be determined what will happen to the other variable.

In this study, Pearson's correlation was used in order to determine the strength of the relationship between the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (as presented in Research Question 1), the Subjective Norm Direct

Measure [SNDM] Scale (as presented in Research question 2), the General Self-Efficacy [GSE] Scale (as presented in Research Question 3), Age (as presented in Research Question 4), How many ABE Mathematics classes taken previously (as presented in Research Question 4), How many ABE Reading classes taken previously (as presented in Research Question 4), and How many ABE Writing classes taken previously (as presented in Research Question 4); as well as, the variables of interest (attitude, subjective norm, general self-efficacy, motivational orientation, the motivational orientation of communication improvement, the motivational orientation of social contact, the motivational orientation of educational preparation, the motivational orientation of professional advancement, the motivational orientation of family togetherness, the motivational orientation of social stimulation, and the motivational orientation of cognitive interest). Pay particular attention that the Pearson's correlation only reveals the strength and direction of the relationship between variables, and not causality. Correlation does not equal causation. To be correlated only means that the two variables are related. It cannot be said that one variable causes the other variable. In other words, correlation is confirming that as one variable changes, the other variable seems to change in a predictable way.

Note, in this study, Pearson's correlation was applied to answer the null hypothesis presented in Research Question 1 in regard to attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), the results of which are rendered in Table 25; the null hypothesis presented in Research Question 2 in regard to subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), the results of which are rendered in Table 26; the null hypothesis presented in

Research Question 3 in regard to general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), the results of which are rendered in Table 27; and the null hypothesis presented in Research Question 4 in regard to age, the results of which are rendered in Table 30; in regard to how many ABE Mathematics classes were taken previously, the results of which are rendered in Table 47; in regard to how many ABE Reading classes were taken previously, the results of which are rendered in Table 48; and how many ABE Writing classes were taken previously, the results of which are rendered in Table 49.

Analysis of Variance (ANOVA)

Analysis of variance (ANOVA) measures the degree of association between a continuous outcome variable (such as mean score, main effect, an interaction, and a linear contrast) and the categorical determining dependent variable. In this study, the results of the ANOVA analysis are presented in the following ANOVA output summary tables: marital status (Table 31 and Table 32), racial identification (Table 33 and Table 34), employment status (Table 35 and Table 36), which campus the respondent was attending (Table 37 and Table 38), which ABE class the respondent was attending (Table 39 and Table 40), plans to enroll in another ABE Mathematics class (Table 41 and Table 42), plans to enroll in another ABE Reading class (Table 43 and Table 44), and plans to enroll in another ABE writing class (Table 45 and Table 46); and the individual determinants: attitude, subjective norm, general self-efficacy, motivational orientations, and the seven motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational

orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest).

All of the ANOVA output summary tables in this study contain the following columns: “Source of Variance,” “SS for sum of squares deviations from the mean,” *df* for degrees of freedom,” “MS for mean squares,” “*F* for *F*-test,” and the *p*-value (labeled as “Sig.” in the Statistical Package for Social Sciences [SPSS]). The only columns that are critical for interpretation are the first and the last (Cohen et al., 2003). The others are used mainly for intermediate computational purposes.

For one-way ANOVA, there are rows for “Between Groups” variance and “Within Groups” variance, and often a row for “Total” variance (Cohen et al., 2003). In one-way ANOVA, there is only a single *F*-test ratio ($MS_{\text{between}} / MS_{\text{within}}$), and this is shown on the “Between Groups” row. There is also only one *p*-value shown in the “Sig.” column, because there is only one (overall) null hypothesis (Cohen et al., 2003).

According to Cohen et al. (2003), the row labeled “Between Groups,” having a probability value associated with it, is the only one of any great importance at this time. The other rows are used mainly for computational purposes. Based on the decision rules selected by the researcher, of all the information presented in the ANOVA table, the major interest of the researcher was focused on the *p*-value located in the “Sig.” column. If the *p*-value was less than or equal to the alpha value of .05, as set by the researcher, then the effect was said to be significant. Since the alpha value is set at .05, any *p*-value less than or equal to .05 resulted in significant effects, while any *p*-value greater than .05 resulted in nonsignificant effects (Cohen et al., 2003). In other words, if the *p*-value was less than or equal to the alpha value of .05, the null hypothesis was rejected and the

alternative hypothesis was accepted. If the p -value was greater than the alpha value of .05, the null hypothesis was accepted and the alternative hypothesis was rejected. Cohen et al. (2003) further explained that if the p -value is found to be significant using the above procedure, it implies that the means differ more than would be expected by chance alone.

The null hypothesis usually predicts there is no relationship between the independent and dependent variables (Cohen et al., 2003). According to Cohen et al. (2003), basically in hypothesis testing, the goal is to see if the probability value (p -value) is less than or equal to the significance level (p -value \leq alpha). In this study, the researcher specified the significance level of .05. As a consequence, this means there is less than a 5% chance that a relationship between the independent and dependent variables would occur by chance (Cohen et al., 2003). Hence, the researcher selected two decision-making rules of hypothesis testing for this study:

Rule 1: If the p -value is less than or equal to the significance level of .05 reject the null hypothesis, accept the alternative hypothesis, and conclude that the research finding is statistically significant (Cohen et al., 2003).

Rule 2: If the p -value is greater than the significance level of .05 accept the null hypothesis, reject the alternative hypothesis, and conclude that the research finding is not statistically significant (Cohen et al., 2003).

Note that Analysis of Variance (ANOVA) was applied to answer each null hypothesis in Research Question 4 in regard to marital status, in regard to racial identification, in regard to employment status, in regard to which campus attending, in regard to which ABE class attending, in regard to plans to enroll in another ABE

Mathematics class, in regard to plans to enroll in another ABE Reading class, and in regard to plans to enroll in another ABE Writing class. Each null hypothesis for each research question has been tested, and the results are presented and discussed in the next section.

Research Question 1 Null Hypothesis (H₀)

There is no statistically significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Findings for Research Question 1 Null Hypotheses (H₀)

1. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of communication improvement. The p -value of .010 was compared to the significant level of .05. The p -value of .010 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between attitude and the motivational orientation of communication improvement. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of communication improvement and attitude.

2. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and motivational orientation of social contact. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between attitude and the motivational orientation of social contact. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of social contact and attitude.

3. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of educational preparation. The p -value of .024 was compared to the significance level of .05. The p -value of .024 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between attitude and the motivational orientation of educational preparation. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of educational preparation and attitude.

4. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of professional advancement. The p -value of .043 was compared to the significance level of .05. The p -value of .043 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there

was a significant relationship between attitude and the motivational orientation of professional advancement. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of professional advancement and attitude.

5. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of family togetherness. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between attitude and the motivational orientation of family togetherness. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of family togetherness and attitude.

6. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of social stimulation. The p -value of

.001 was compared to the significant level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between attitude and the motivational orientation of social stimulation. As a result, the alternative hypothesis must be accepted because there is a relationship between the motivational orientation of social stimulation and attitude.

7. There is no significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between attitude and the motivational orientation of cognitive interest. The p -value of .129 was compared to the significant level of .05. The p -value of .129 was greater than the significance level of .05. Based on the decision rules, the null hypothesis is accepted and the alternative hypothesis is rejected when the p -value is greater than the significance level of .05 (Cohen et al., 2003). Therefore, the null hypothesis was accepted and a conclusion was made that there is not a significant relationship between attitude and the motivational orientation of cognitive interest. As a result, the alternative hypothesis must be rejected.

Table 25 and Figure 18 summarize the results of these analyses. Significant, positive correlations were found between the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale and six of the seven motivational orientations: the

motivational orientation of communication improvement (p -value = .010), the motivational orientation of social contact (p -value = .001), the motivational orientation of educational preparation (p -value = .024), the motivational orientation of professional advancement (p -value = .043), the motivational orientation of family togetherness (p -value = .001), and the motivational orientation of social stimulation (p -value = .001). As shown, significant and positive correlations were generally found between these variables, with correlations ranging in strength from very weak/negligible to strong.

Table 25

Correlations With Attitude (as Measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale)

Variable	1	2	3	4	5	6	7	8
RAACE¹ :r	1	.106**	.167**	.093**	.083**	.202**	.178**	.062**
p-value		.010	.001	.024	.043	.001	.001	.129
N	600	589	596	592	595	590	590	596
Comm. Improve.² :r	.106*	1	.518**	.482**	.499**	.456**	.358**	.408**
p-value	.010		.001	.001	.001	.001	.001	.001
N	589	589	585	582	585	579	579	585
Social Contact³ :r	.167**	.518**	1	.436**	.384**	.528**	.509**	.351**
p-value	.001	.001		.001	.001	.001	.001	.001
N	596	585	596	588	591	586	586	592
Educ. Preparation⁴ :r	.093*	.482**	.436**	1	.490**	.448**	.367**	.420**
p-value	.024	.001	.001		.001	.001	.001	.001
N	592	582	588	592	587	582	582	588
Prof. Advance.⁵ :r	.083*	.499**	.384**	.490**	1	.468**	.393**	.524**
p-value	.043	.001	.001	.001		.001	.001	.001
N	595	585	591	587	595	586	586	592
Family Together.⁶ :r	.202**	.456**	.528**	.448**	.468**	1	.534**	.389**
p-value	.001	.001	.001	.001	.001		.001	.001
N	590	579	586	582	586	590	581	587

(table continues)

Variable	1	2	3	4	5	6	7	8
Social Stimulation⁷ :r	.178**	.358**	.509**	.367**	.393**	.534**	¹	.467**
p-value	.001	.001	.001	.001	.001	.001		.001
N	590	579	586	582	586	581	590	587
Cognitive Interest⁸ :r	.062	.408**	.351**	.420**	.524**	.389**	.467**	¹
p-value	.129	.001	.001	.001	.001	.001	.001	
N	596	585	592	588	592	587	587	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

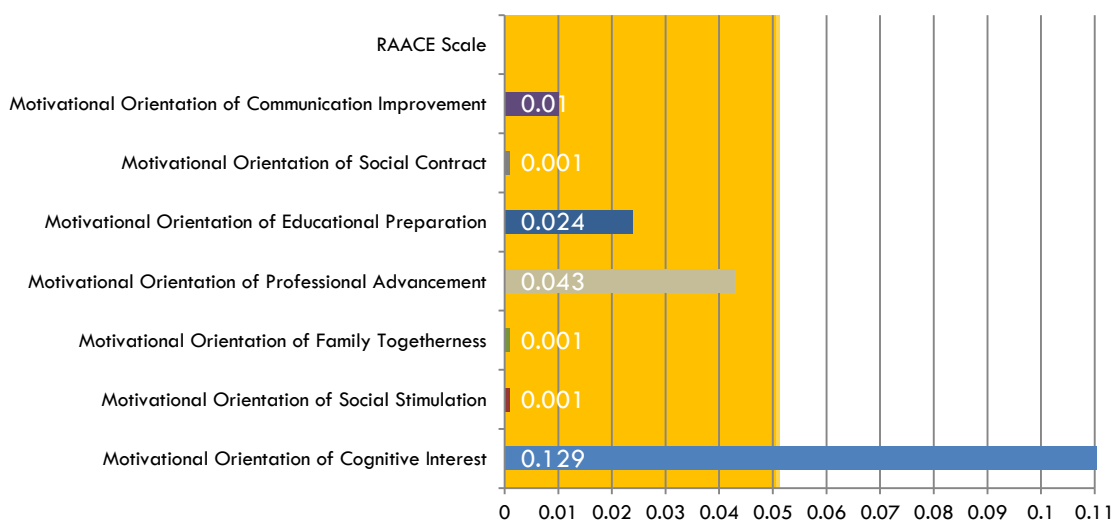


Figure 18. Study findings for research question 1.

Research Question 2 Null Hypothesis (H_0)

There is no statistically significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) questions and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,

- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Findings for Research Question 2 Null Hypotheses (H₀)

1. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of communication improvement. The *p*-value of .001 was compared to the significance level of .05. The *p*-value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the *p*-value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of communication improvement. As a result, the alternative hypothesis must be accepted.

2. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and motivational orientation of social contact. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of social contact. As a result, the alternative hypothesis must be accepted.

3. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of educational preparation. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of educational preparation. As a result, the alternative hypothesis must be accepted.

4. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation

of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of professional advancement. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of professional advancement. As a result, the alternative hypothesis must be accepted.

5. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of family togetherness. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of family togetherness. As a result, the alternative hypothesis must be accepted.

6. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of social stimulation. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between subjective norm and the motivational orientation of social stimulation. As a result, the alternative hypothesis must be accepted.

7. There is no significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between subjective norm and the motivational orientation of cognitive interest. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there

was a significant relationship between subjective norm and the motivational orientation of cognitive interest. As a result, the alternative hypothesis must be accepted.

Table 26 and Figure 19 summarize the results of these analyses. Significant and positive correlations were found between the Subjective Norm Direct Measure [SNDM] Scale and each of the seven motivational orientations: the motivational orientation of communication improvement (p -value = .001), the motivational orientation of social contact (p -value = .001), the motivational orientation of educational preparation (p -value = .001), the motivational orientation of professional advancement (p -value = .001), the motivational orientation of family togetherness (p -value = .001), the motivational orientation of social stimulation (p -value = .001), and the motivational orientation of cognitive interest (p -value = .001). As shown, in Table 26, significant and positive correlations were generally found between these variables, with correlations ranging in strength from moderate to strong.

Table 26

Correlations With Subjective Norm (as Measured by the Subjective Norm Direct Measure [SNDM] Scale)

Variable	1	2	3	4	5	6	7	8
Subjective Norm¹ :r	1	.318**	.271**	.264**	.259**	.267**	.209**	.240**
p-value		.001	.001	.001	.001	.001	.001	.001
N	600	589	596	592	595	590	590	596
Comm. Improve.² :r	.318**	1	.518**	.482**	.499**	.456**	.358**	.408**
p-value	.001		.001	.001	.001	.001	.001	.001
N	589	589	585	582	585	579	579	585
Social Contact³ :r	.271**	.518**	1	.436**	.384**	.528**	.509**	.351**
p-value	.001	.001		.001	.001	.001	.001	.001
N	596	585	596	588	591	586	586	592

(table continues)

Variable	1	2	3	4	5	6	7	8
Educ. Preparation⁴ :r	.264**	.482**	.436**	¹	.490**	.448**	.367**	.420**
p-value	.001	.001	.001		.001	.001	.001	.001
N	592	582	588	592	587	582	582	588
Prof. Advance.⁵ :r	.259**	.499**	.384**	.490**	¹	.468**	.393**	.524**
p-value	.001	.001	.001	.001		.001	.001	.001
N	595	585	591	587	595	586	586	592
Family Together.⁶ :r	.267**	.456**	.528**	.448**	.468**	¹	.534**	.389**
p-value	.001	.001	.001	.001	.001		.001	.001
N	590	579	586	582	586	590	581	587
Social Stimulation⁷ :r	.209**	.358**	.509**	.367**	.393**	.534**	¹	.467**
p-value	.001	.001	.001	.001	.001	.001		.001
N	590	579	586	582	586	581	590	587
Cognitive Interest⁸ :r	.240**	.408**	.351**	.420**	.524**	.389**	.467**	¹
p-value	.001	.001	.001	.001	.001	.001	.001	
N	596	585	592	588	592	587	587	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

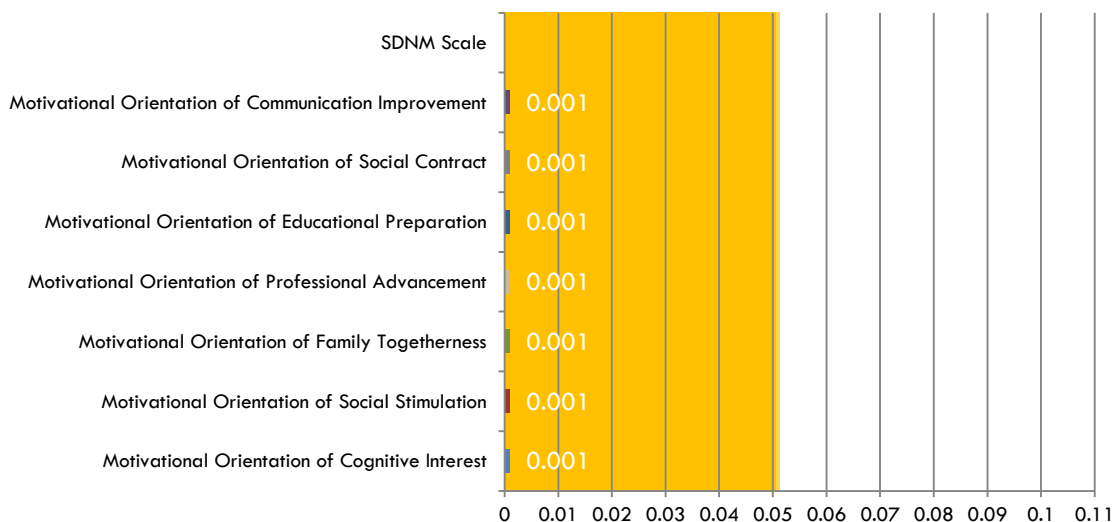


Figure 19. Study findings for research question 2.

Research Question 3 Null Hypothesis (H₀)

There is no statistically significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as

measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Findings for Research Question 3 Null Hypotheses (H₀)

1. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of communication improvement. The *p*-value of .001 was compared to the significance level of .05. The *p*-value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the *p*-value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the

motivational orientation of communication improvement. As a result, the alternative hypothesis must be accepted.

2. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and motivational orientation of social contact. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the motivational orientation of social contact. As a result, the alternative hypothesis must be accepted.

3. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of educational preparation. The p -value of .026 was compared to the significance level of .05. The p -value of .026 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was

made that there was a significant relationship between general self-efficacy and the motivational orientation of educational preparation. As a result, the alternative hypothesis must be accepted.

4. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of professional advancement. The p -value of .019 was compared to the significance level of .05. The p -value of .019 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the motivational orientation of professional advancement. As a result, the alternative hypothesis must be accepted.

5. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of family togetherness. The p -value of .001 was compared to the significance level of .05. The p -value of .001

was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the motivational orientation of family togetherness. As a result, the alternative hypothesis must be accepted.

6. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of social stimulation. The p -value of .001 was compared to the significance level of .05. The p -value of .001 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the motivational orientation of social stimulation. As a result, the alternative hypothesis must be accepted.

7. There is no significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between general self-efficacy and the motivational orientation of cognitive interest. The p -value of .002 was compared to the significance level of .05. The p -value of .002 was less than the significance level of .05. Based on the decision rules, the null hypothesis is rejected and the alternative hypothesis is accepted when the p -value is less than or equal to the significance level of .05 (Cohen et al., 2003). The conclusion was made that there was a significant relationship between general self-efficacy and the motivational orientation of cognitive interest. As a result, the alternative hypothesis must be accepted.

Table 27 and Figure 20 present the results of these analyses. Significant, positive correlations were found between the General Self-Efficacy [GSE] Scale and each of the seven motivational orientations: the motivational orientation of communication improvement (p -value = .001), the motivational orientation of social contact (p -value = .001), the motivational orientation of educational preparation (p -value = .026), the motivational orientation of professional advancement (p -value = .019), the motivational orientation of family togetherness (p -value = .001), the motivational orientation of social stimulation (p -value = .001), and the motivational orientation of cognitive interest (p -value = .002). As shown in Table 27, significant and positive correlations were generally found between these variables, with correlations ranging in strength from weak to moderate.

Table 27

Correlations With General Self-Efficacy (as Measured by the General Self-Efficacy [GSE] Scale)

Variable	1	2	3	4	5	6	7	8
GSE Scale¹ :r	1	.179**	.204**	.091**	.096**	.206**	.295**	.126**
p-value		.001	.001	.001	.001	.001	.001	.002
n	600	589	596	592	595	590	590	596
Comm. Improve.² :r	.179**	1	.518**	.482**	.499**	.456**	.358**	.408**
p-value	.001		.001	.001	.001	.001	.001	.001
n	589	589	585	582	585	579	579	585
Social Contact³ :r	.204**	.518**	1	.436**	.384**	.528**	.509**	.351**
p-value	.001	.001		.001	.001	.001	.001	.001
n	596	585	596	588	591	586	586	592
Educ. Preparation⁴ :r	.091**	.482**	.436**	1	.490**	.448**	.367**	.420**
p-value	.026	.001	.001		.001	.001	.001	.001
n	592	582	588	592	587	582	582	588
Prof. Advance.⁵ :r	.096**	.499**	.384**	.490**	1	.468**	.393**	.524**
p-value	.019	.001	.001	.001		.001	.001	.001
N	595	585	591	587	595	586	586	592
Family Together.⁶ :r	.206**	.456**	.528**	.448**	.468**	1	.534**	.389**
p-value	.001	.001	.001	.001	.001		.001	.001
N	590	579	586	582	586	590	581	587
Social Stimulation⁷ :r	.295**	.358**	.509**	.367**	.393**	.534**	1	.467**
p-value	.001	.001	.001	.001	.001	.001		.001
N	590	579	586	582	586	581	590	587
Cognitive Interest⁸ :r	.126**	.408**	.351**	.420**	.524**	.389**	.467**	1
p-value	.002	.001	.001	.001	.001	.001	.001	
N	596	585	592	588	592	587	587	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

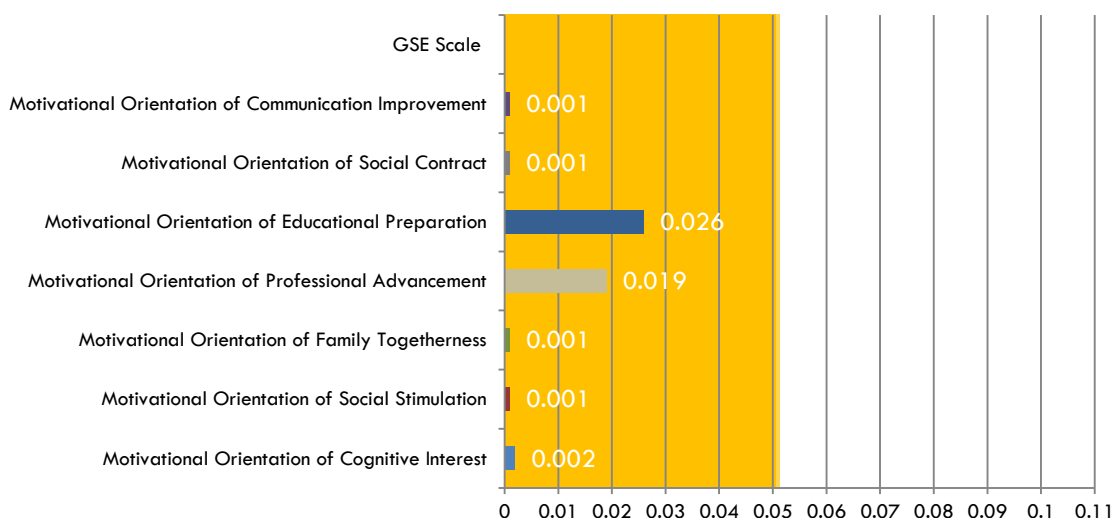


Figure 20. Study findings for research question 3.

Research Question 4 Null Hypothesis (H_0)

There is no statistically significant relationship between the independent factors of gender; age; marital status; racial identification; employment status; which campus the respondent was attending; which ABE class the respondent was attending; plans to enroll in another ABE Mathematics class; plans to enroll in another ABE Reading class; plans to enroll in another ABE writing class; how many ABE Mathematics classes were taken previously; how many ABE Reading classes were taken previously; and how many ABE Writing classes were taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form); as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,

- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Findings for Research Question 4 Null Hypotheses (H₀)

Gender

1. There is no significant relationship between gender and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

An independent samples *t*-test was conducted to determine if gender would have an effect on attitude as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale. There was not a significant effect of gender on attitude, $t(486) = .028, p = .978$. Since the *p*-value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on attitude.

2. There is no significant relationship between gender and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

An independent samples *t*-test was conducted to determine if gender would have an effect on subjective norm (as measured by the Subjective Norm

Direct Measure [SNDM] Scale). There was not a significant effect of gender on subjective norm, $t(464) = -.470, p = .639$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on subjective norm.

3. There is no significant relationship between gender and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

An independent samples t -test was conducted to determine if gender would have an effect on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). There was not a significant effect of gender on general self-efficacy, $t(490) = 1.785, p = .075$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on general self-efficacy.

4. There is no significant relationship between gender and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples t -test was conducted to determine if gender would have an effect on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a significant effect of gender on motivational orientation, $t(478) = -2.082, p = .038$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that gender does have a significant effect on motivational orientation.

5. There is no significant relationship between gender and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a significant effect of gender on the motivational orientation of communication improvement, $t(502) = -2.297, p = .022$. Since the *p*-value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that gender does have a significant effect on the motivational orientation of communication improvement.

6. There is no significant relationship between gender and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was not a significant effect of gender on the motivational orientation of social contact, $t(490) = -1.781, p = .075$. Since the *p*-value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on the motivational orientation of social contact.

7. There is no significant relationship between gender and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was not a significant effect of gender on the motivational orientation of educational preparation, $t(485) = -.728, p = .467$. Since the *p*-value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on the motivational orientation of educational preparation.

8. There is no significant relationship between gender and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a significant effect of gender on the motivational orientation of professional advancement, $t(532) = -2.005, p = .045$. Since the *p*-value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that gender does have a significant effect on the motivational orientation of professional advancement.

9. There is no significant relationship between gender and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was not a significant effect of gender on the motivational orientation of family togetherness, $t(456) = -1.223, p = .222$. Since the *p*-value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on the motivational orientation of family togetherness.

10. There is no significant relationship between gender and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a significant effect of gender on the motivational orientation of social stimulation, $t(453) = -2.143, p = .033$. Since the *p*-value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that gender does have a significant effect on the motivational orientation of social stimulation.

11. There is no significant relationship between gender and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

An independent samples *t*-test was conducted to determine if gender would have an effect on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was not a significant effect of gender on the motivational orientation of cognitive interest, $t(448) = .420, p = .675$. Since the *p*-value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that gender does not have a significant effect on the motivational orientation of cognitive interest.

A series of independent sample *t*-tests were conducted focusing upon these hypotheses and their relation to gender. With regard to gender, independent sample *t*-tests were used as gender is a dichotomous variable. Dichotomous variables are nominal variables which have only two categories or levels. Nominal variables are variables that have two or more categories, but which do not have an intrinsic order. Descriptive statistics associated with the independent sample *t*-tests analyses are presented in Table 28. As shown, generally only small differences were indicated in these measures on the basis of respondent gender.

Table 28

t-Test Independent Sample Group Statistics on Gender

<i>Variable</i>	<i>Gender</i>	<i>n</i>	(\bar{x})	<i>SD</i>	<i>SEM</i>
RAACE Scale	Female	375	2.716	0.378	0.020
	Male	225	2.715	0.365	0.024
SNDM Scale	Female	375	2.894	0.759	0.039
	Male	225	2.924	0.774	0.052
GSE Scale	Female	375	2.593	0.397	0.020
	Male	225	2.536	0.378	0.025
Motivational Orientations EPS A-Form	Female	375	3.081	0.563	0.029
	Male	225	3.179	0.553	0.037
MO of Communication Improvement	Female	371	3.128	0.860	0.045
	Male	218	3.284	0.756	0.051
MO of Social Contact	Female	371	2.893	0.909	0.047
	Male	225	3.026	0.866	0.058
MO of Educational Preparation	Female	371	3.292	0.613	0.032
	Male	221	3.328	0.576	0.039
MO of Professional Advancement	Female	373	3.486	0.660	0.034
	Male	222	3.586	0.547	0.037
MO of Family Togetherness	Female	367	2.792	0.917	0.048
	Male	223	2.889	0.950	0.064
MO of Social Stimulation	Female	368	2.552	0.908	0.047
	Male	222	2.721	0.941	0.063
MO of Cognitive Interest	Female	372	3.453	0.589	0.031
	Male	224	3.431	0.624	0.042

Table 29 and Figure 21 present the results of these *t*-tests. As shown, statistical significance was found with regard to gender and the Motivational Orientation EPS A-Form ($p = .038$), the motivational orientation of communication improvement ($p = .022$), the motivational orientation of professional advancement ($p = .045$), and the motivational orientation of social stimulation ($p = .033$). In all four cases, male respondents were found to have significantly higher scores on these measures as compared with female respondents.

Table 29

t-Test Independent Sample Table on Gender

Variable	Equal Variances	Levene's Test For Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig.	MD	SED	95% CI	
									Lower	Upper
RAACE Scale	EV as.	.282	.595	.028	598	.978	0.001	0.031	-0.061	0.063
	EV not as.			.028	485.657	.978	0.001	0.031	-0.061	0.062
SNDM Scale	EV as.	.339	.561	-.472	598	.637	-0.030	0.064	-0.157	0.096
	EV not as.			-.470	464.219	.639	-0.030	0.065	-0.158	0.097
GSE Scale	EV as.	.982	.322	1.764	598	.078	0.058	0.033	-0.007	0.123
	EV not as.			1.785	489.892	.075	0.058	0.032	-0.006	0.122
MO EPS A-Form	EV as.	.011	.915	-2.073	598	.039	-0.098	0.047	-0.190	-
	EV not as.			-2.082	478.343	.038	-0.098	0.047	-0.190	-
Comm. Impr.	EV as.	4.209	.041	-2.222	587	.027	-0.156	0.070	-0.294	-
	EV not as.			-2.297	502.218	.022	-0.156	0.068	-0.290	-
Social Contact	EV as.	.456	.500	-1.761	594	.079	-0.133	0.075	-0.281	0.015
	EV not as.			-1.781	490.454	.075	-0.133	0.075	-0.279	0.014
Educa-tional Prep.	EV as.	.771	.380	-.716	590	.474	-0.036	0.051	-0.137	0.064
	EV not as.			-.728	485.802	.467	-0.036	0.050	-0.135	0.062
Profes-sional Adv.	EV as.	9.620	.002	-1.913	593	.056	-0.101	0.053	-0.204	0.003
	EV not as.			-2.005	532.443	.045	-0.101	0.050	-0.199	-
Family Together.	EV as.	.123	.726	-1.234	588	.218	-0.097	0.079	-0.252	0.058
	EV not as.			-1.223	456.147	.222	-0.097	0.080	-0.254	0.059
Social Stimula.	EV as.	1.114	.292	-2.162	588	.031	-0.169	0.078	-0.323	-
	EV not as.			-2.143	452.914	.033	-0.169	0.079	-0.324	-
Cognitive Interest	EV as.	.160	.689	.426	594	.670	0.022	0.051	-0.078	0.122
	EV not as.			.420	448.371	.675	0.022	0.052	-0.080	0.123

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

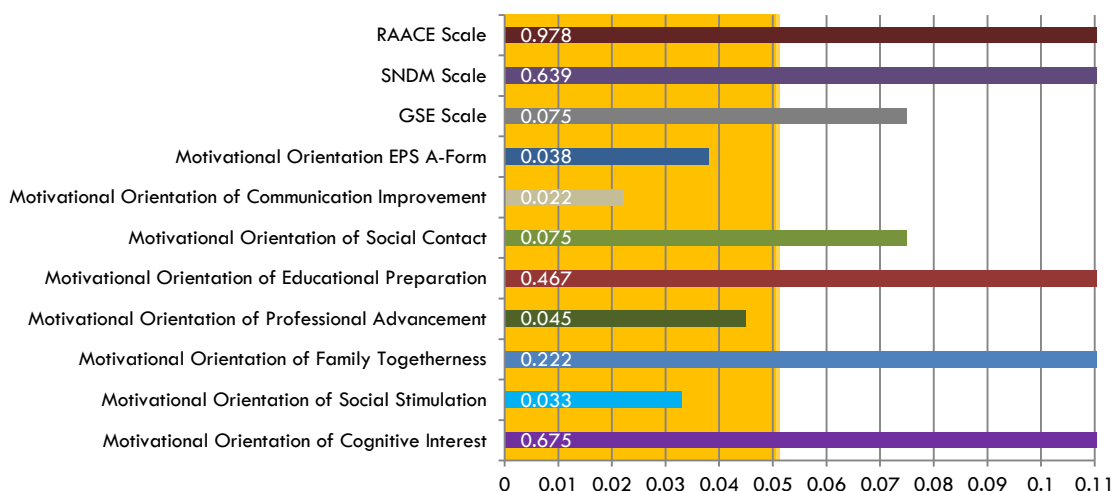


Figure 21. Study findings for research question 4—Gender.

Age

12. There is no significant relationship between age and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between age and attitude as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale. There was a positive correlation between the two variables, $r = .016$, $n = 600$, $p = .695$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and attitude.

13. There is no significant relationship between age and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between age and subjective norm (as measured by the Subjective

Norm Direct Measure [SNDM] Scale). There was a positive correlation between the two variables, $r = .065$, $n = 600$, $p = .111$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and subjective norm.

14. There is no significant relationship between age and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between age and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). There was a positive correlation between the two variables, $r = .025$, $n = 600$, $p = .535$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and general self-efficacy.

15. There is no significant relationship between age and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .063$, $n = 600$, $p = .121$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and motivational orientation.

16. There is no significant relationship between age and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .081$, $n = 589$, $p = .050$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis is accepted. These results suggest that there was a statistically significant correlation between age and the motivational orientation of communication improvement, though weak in strength.

17. There is no significant relationship between age and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .035$, $n = 596$, $p = .387$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and the motivational orientation of social contact.

18. There is no significant relationship between age and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .080$, $n = 592$, $p = .053$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and the motivational orientation of educational preparation.

19. There is no significant relationship between age and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .106$, $n = 595$, $p = .010$. Since the p -value (*Sig.*) is $\leq .05$ the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest there was a statistically significant correlation between age and the motivational orientation of professional advancement, though weak in strength.

20. There is no significant relationship between age and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .089$, $n = 590$, $p = .030$. Since the p -value (*Sig.*) is $\leq .05$ the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that there was a statistically significant correlation between age and the motivational orientation of family togetherness, though weak in strength.

21. There is no significant relationship between age and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was no positive correlation between the two variables, $r = -.044$, $n = 590$, $p = .287$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and the motivational orientation of social stimulation.

22. There is no significant relationship between age and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between age and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .005$, $n = 596$, $p = .904$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between age and the motivational orientation of cognitive interest.

With regard to age, Pearson's correlation was used as all variables in these analyses were continuous. If a variable can take on any value between its minimum value and its maximum value, it is called a continuous variable (Cohen et al., 2003). Continuous variables are numeric values that can be ordered sequentially and have values in between points, that do not naturally fall into discrete ranges. Pearson's correlation was also used in order to determine the extent of the association between age and the remaining variables of interest. The results of these analyses are presented in Table 30 and Figure 22. As shown, significant correlations were only found between age and the motivational orientation of professional advancement ($p = .010$), as well as the motivational orientation of family togetherness ($p = .030$). These two correlations were found to be positive and statistically significant, though weak in strength.

Table 30

Correlations with Age

Variable	Age
RAACE Scale :r	.016
<i>p</i> -value	.695
<i>N</i>	600
SNDM Scale :r	.065
<i>p</i> -value	.111
<i>N</i>	600
GSE Scale :r	1.025
<i>p</i> -value	.535
<i>N</i>	600
Motivational Orientation EPS A-Form :r	.063
<i>p</i> -value	.121
<i>N</i>	600
Motivational Orientation of Communication Improvement :r	.081
<i>p</i> -value	.050
<i>N</i>	589
Motivational Orientation of Social Contact :r	.035
<i>p</i> -value	.387
<i>N</i>	596
Motivational Orientation of Educational Preparation :r	.080
<i>p</i> -value	.053
<i>N</i>	592
Motivational Orientation of Professional Advancement :r	.106**
<i>p</i> -value	.010
<i>N</i>	595
Motivational Orientation of Family Togetherness :r	.089*
<i>p</i> -value	.030
<i>N</i>	590
Motivational Orientation of Social Stimulation :r	-.044
<i>p</i> -value	.287
<i>N</i>	590
Motivational Orientation of Cognitive Interest :r	.005
<i>p</i> -value	.904
<i>N</i>	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

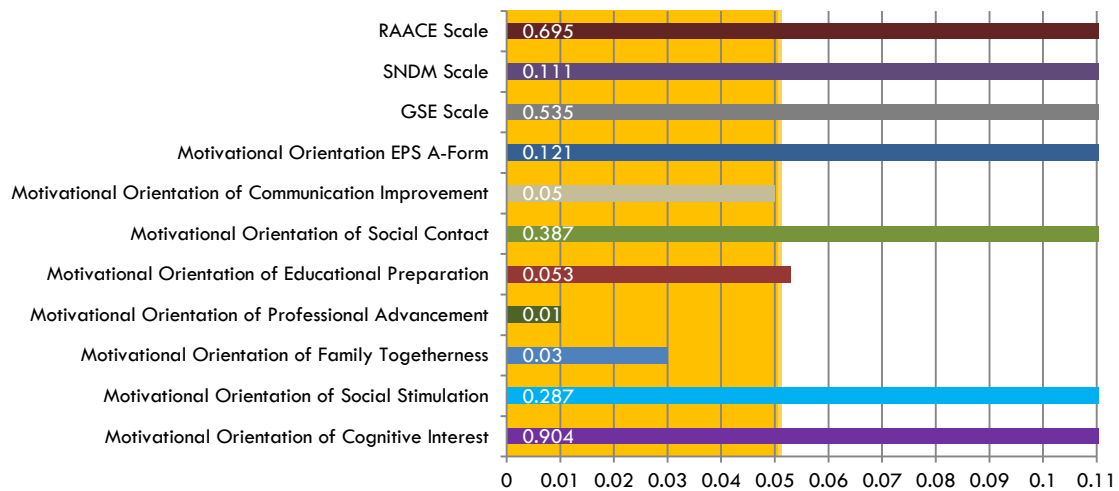


Figure 22. Study findings for research question 4—Age.

Marital Status

23. There is no significant relationship between marital status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on attitude at the α .05 level, $F(2,592) = 1.874$, $p = .154$, $MS_{error} = .138$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on attitude.

24. There is no significant relationship between marital status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on subjective norm at the α .05 level, $F(2,592) = .911, p = .403, MS_{error} = .582$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on subjective norm.

25. There is no significant relationship between marital status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on general self-efficacy at the α .05 level, $F(2,592) = 1.236, p = .291, MS_{error} = .153$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on general self-efficacy.

26. There is no significant relationship between marital status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, analysis of variance (ANOVA) was conducted to compare the effect of marital status on motivational orientation (as

measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on motivational orientation at the $\alpha .05$ level, $F(2,592) = .023, p = .977, MS_{error} = .317$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on motivational orientation.

27. There is no significant relationship between marital status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(2,581) = 2.134, p = .119, MS_{error} = .683$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on attitude.

28. There is no significant relationship between marital status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, analysis of variance (ANOVA) was conducted to compare the effect of marital status on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on the motivational orientation of social contact at the $\alpha .05$ level, $F(2,588) = .595, p = .552, MS_{error} = .800$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on the motivational orientation of social contact.

29. There is no significant relationship between marital status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(2,584) = .389, p = .678, MS_{error} = .361$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on the motivational orientation of educational preparation.

30. There is no significant relationship between marital status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of marital status on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(2,587) = .058, p = .943, MS_{error} = .390$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on the motivational orientation of professional advancement.

31. There is no significant relationship between marital status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of marital status on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(2,582) = 7.018, p = .001, MS_{error} = .849$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These

results suggest that marital status did have a statistically significant effect on the motivational orientation of family togetherness.

32. There is no significant relationship between marital status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, analysis of variance (ANOVA) was conducted to compare the effect of marital status on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of marital status on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(2,582) = 7.227, p = .001, MS_{error} = .838$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that marital status did have a statistically significant effect on the motivational orientation of social stimulation.

33. There is no significant relationship between marital status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of marital status on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of marital status on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(2,588) = 3.056, p = .048, MS_{error} = .362$. Since the p -value (*Sig.*) was $\leq .05$, the

null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that marital status did have a statistically significant effect on the motivational orientation of cognitive interest.

First, with regard to marital status, as this measure was nominal, a series of analyses of variance were conducted. Nominal variables are not put in any particular order (Cohen et al., 2003). There is no logical basis for saying that one category such as “single” is higher or lower than another category such as “married.” A nominal variable can be transformed in any way that neither combines nor splits levels of the variable. That is, the levels of the variable are simply labels, with no inherent meaning (Cohen et al., 2003). As indicated in Table 31, generally small to moderate differences were found in these measures on the basis of marital status.

Table 31

ANOVA Descriptives Table on Marital Status

<i>Variable</i>	<i>Category</i>	<i>N</i>	(\bar{x})	<i>SD</i>	<i>Std. Error</i>	<i>95% CI</i>	
						<i>Lower</i>	<i>Upper</i>
RAACE Scale	Single	492	2.703	0.364	0.016	2.670	2.735
	Married	81	2.787	0.441	0.049	2.690	2.885
	Divorced	22	2.685	0.237	0.051	2.580	2.790
	Total	595	2.713	0.372	0.015	2.683	2.743
SNDM Norm Scale	Single	492	2.888	0.753	0.034	2.821	2.954
	Married	81	3.006	0.825	0.092	2.824	3.189
	Divorced	22	2.841	0.762	0.162	2.503	3.179
	Total	595	2.902	0.763	0.031	2.841	2.964
GSE Scale	Single	492	2.567	0.370	0.017	2.534	2.599
	Married	81	2.628	0.503	0.056	2.516	2.739
	Divorced	22	2.500	0.396	0.084	2.324	2.676
	Total	595	2.572	0.392	0.016	2.541	2.604
MO EPS A-Form	Single	492	3.113	0.557	0.025	3.064	3.163
	Married	81	3.125	0.574	0.064	2.998	3.252
	Divorced	22	3.132	0.660	0.141	2.839	3.424
	Total	595	3.116	0.562	0.023	3.070	3.161

(table continues)

Variable	Category	N	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
Comm. Improvement	Single	483	3.151	0.831	0.038	3.077	3.225
	Married	79	3.352	0.788	0.089	3.176	3.529
	Divorced	22	3.265	0.865	0.184	2.882	3.649
	Total	584	3.182	0.828	0.034	3.115	3.250
Social Contact	Single	489	2.932	0.884	0.040	2.853	3.010
	Married	80	2.950	0.946	0.106	2.740	3.160
	Divorced	22	3.144	0.945	0.201	2.725	3.563
	Total	591	2.942	0.894	0.037	2.870	3.014
Educational Preparation	Single	484	3.294	0.598	0.027	3.241	3.348
	Married	81	3.348	0.621	0.069	3.210	3.485
	Divorced	22	3.364	0.574	0.122	3.109	3.618
	Total	587	3.304	0.600	0.025	3.255	3.353
Professional Advancement	Single	488	3.523	0.609	0.028	3.469	3.577
	Married	80	3.525	0.696	0.078	3.370	3.680
	Divorced	22	3.477	0.683	0.146	3.174	3.780
	Total	590	3.522	0.623	0.026	3.471	3.572
Family Togetherness	Single	485	2.775	0.922	0.042	2.692	2.857
	Married	79	3.179	0.868	0.098	2.985	3.374
	Divorced	21	2.635	1.082	0.236	2.142	3.128
	Total	585	2.824	0.931	0.038	2.749	2.900
Social Stimulation	Single	485	2.671	0.902	0.041	2.591	2.752
	Married	79	2.249	0.953	0.107	2.036	2.462
	Divorced	21	2.619	1.084	0.237	2.126	3.113
	Total	585	2.612	0.925	0.038	2.537	2.687
Cognitive Interest	Single	488	3.469	0.601	0.027	3.415	3.522
	Married	81	3.294	0.607	0.067	3.160	3.429
	Divorced	22	3.379	0.580	0.124	3.122	3.636
	Total	591	3.442	0.603	0.025	3.393	3.490

Table 32 and Figure 23 present the results of these ANOVAs. As shown, statistically significant correlations were found between marital status and the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .001$), and the motivational orientation of cognitive interest ($p = .048$). These results indicate that mean scores on these three measures varied significantly on the basis of marital status.

Table 32

ANOVA Output Summary Table on Marital Status

Variable	Source of Variance	SS	df	MS	F	Sig.
						p-value
RAACE Scale						
	Between Groups	.518	2	.259	1.874	.154
	Within Groups	81.882	592	.138		
	Total	82.400	594			
SNDM Scale						
	Between Groups	1.062	2	.531	.911	.403
	Within Groups	344.798	592	.582		
	Total	345.860	594			
GSE Scale						
	Between Groups	.379	2	.189	1.236	.291
	Within Groups	90.753	592	.153		
	Total	91.132	594			
Motivational Orientations EPS A-Form						
	Between Groups	.015	2	.007	.023	.977
	Within Groups	187.647	592	.317		
	Total	187.662	594			
Motivational Orientation of Communication Improvement						
	Between Groups	2.914	2	1.457	2.134	.119
	Within Groups	396.636	581	.683		
	Total	399.551	583			
Motivational Orientation of Social Contact						
	Between Groups	.953	2	.476	.595	.552
	Within Groups	470.433	588	.800		
	Total	471.386	590			
Motivational Orientation of Educational Preparation						
	Between Groups	.281	2	.140	.389	.678
	Within Groups	210.689	584	.361		
	Total	210.970	586			
Motivational Orientation of Professional Advancement						
	Between Groups	.045	2	.023	.058	.943
	Within Groups	228.648	587	.390		
	Total	228.693	589			
Motivational Orientation of Family Togetherness						
	Between Groups	11.910	2	5.955	7.018	.001
	Within Groups	493.875	582	.849		
	Total	505.785	584			
Motivational Orientation of Social Stimulation						
	Between Groups	12.110	2	6.055	7.227	.001
	Within Groups	487.630	582	.838		
	Total	499.740	584			
Motivational Orientation of Cognitive Interest						
	Between Groups	2.210	2	1.105	3.056	.048
	Within Groups	212.582	588	.362		
	Total	214.792	590			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

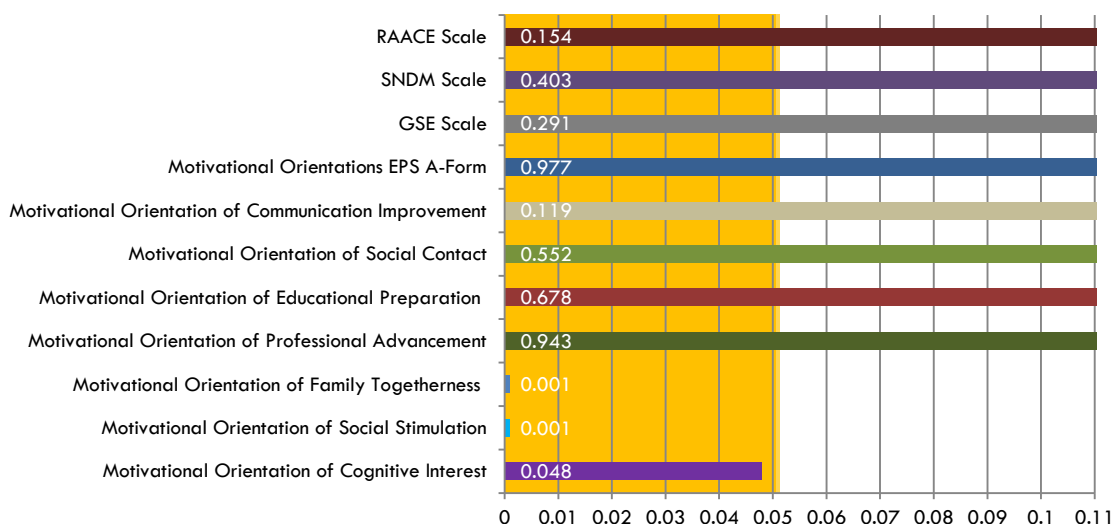


Figure 23. Study findings for research question 4—Marital status.

Racial Identification

34. There is no significant relationship between racial identification and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on attitude at the $\alpha .05$ level, $F(6,593) = 4.452, p = .001, MS_{error} = .134$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on attitude.

35. There is no significant relationship between racial identification and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects ANOVA failed to reveal a reliable, significant effect of racial identification on subjective norm at the $\alpha .05$ level, $F(6,593) = .574, p = .751, MS_{error} = .586$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that racial identification did not have a statistically significant effect on subjective norm.

36. There is no significant relationship between racial identification and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on general self-efficacy at the $\alpha .05$ level, $F(6,593) = 3.228, p = .004, MS_{error} = .149$. Since the p -value (*Sig.*) is $\leq .05$ the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that racial identification did have a statistically significant effect on general self-efficacy.

37. There is no significant relationship between racial identification and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on motivational orientation (as measured by

Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on motivational orientation at the $\alpha .05$ level, $F(6,593) = 2.810, p = .011, MS_{error} = .309$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on motivational orientation.

38. There is no significant relationship between racial identification and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(6,582) = 5.592, p = .001, MS_{error} = .651$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on the motivational orientation of communication improvement.

39. There is no significant relationship between racial identification and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of racial identification on the motivational orientation of social contact at the $\alpha .05$ level, $F(6,589) = 1.819, p = .093, MS_{error} = .794$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that racial identification did not have a statistically significant effect on the motivational orientation of social contact.

40. There is no significant relationship between racial identification and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(6,585) = 3.333, p = .003, MS_{error} = .351$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on the motivational orientation of educational preparation.

41. There is no significant relationship between racial identification and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(6,588) = 3.328, p = .003, MS_{error} = .378$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on the motivational orientation of professional advancement.

42. There is no significant relationship between racial identification and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of racial identification on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(6,583) = 1.152, p = .331, MS_{error} = .864$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the

alternative hypothesis must be rejected. These results suggest that racial identification did not have a statistically significant effect on the motivational orientation of family togetherness.

43. There is no significant relationship between racial identification and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(6,583) = 2.147, p = .047, MS_{error} = .842$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that racial identification did have a statistically significant effect on the motivational orientation of social stimulation.

44. There is no significant relationship between racial identification and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of racial identification on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of racial identification on the motivational orientation of cognitive interest at the $\alpha .05$

level, $F(6,589) = 4.054, p = .001, MS_{error} = .351$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted.

These results suggest that racial identification did have a statistically significant effect on the motivational orientation of cognitive interest.

Next, with regard to racial identification, analyses of variance were conducted as this measure is nominal. Nominal variables are not put in any particular order (Cohen et al., 2003). There is no logical basis for saying that one category such as “Native American” is higher or lower than another category such as “Black.” A nominal variable can be transformed in any way that neither combines nor splits levels of the variable. That is, the levels of the variable are simply labels, with no inherent meaning (Cohen et al., 2003). Table 33 presents the descriptive statistics associated with these analyses. The results are a table of means and standard deviations. As shown, in general, minor to moderate variations in these measures were indicated on the basis of racial identification.

Table 33

ANOVA Descriptives Table on Racial Identification

	<i>n</i>	(\bar{x})	<i>SD</i>	<i>Std. Error</i>	<i>95% Confidence Interval</i>	
					<i>Lower</i>	<i>Upper</i>
<i>RAACE Scale</i>						
Native American	13	2.752	0.218	0.061	2.620	2.884
Asian	38	2.956	0.411	0.067	2.821	3.091
Black	356	2.694	0.355	0.019	2.657	2.731
White	66	2.755	0.328	0.040	2.674	2.835
Hispanic	94	2.635	0.424	0.044	2.548	2.722
Mixed Race	18	2.726	0.275	0.065	2.589	2.863
Other	15	2.898	0.468	0.121	2.639	3.157
Total	600	2.715	0.373	0.015	2.685	2.745

(table continues)

	n	(\bar{x})	SD	Std. Error	95% Confidence Interval	
					Lower	Upper
<i>SNDM Scale</i>						
Native American	13	2.962	0.871	0.242	2.435	3.488
Asian	38	2.901	0.713	0.116	2.667	3.136
Black	356	2.920	0.756	0.040	2.841	2.999
White	66	2.826	0.762	0.094	2.638	3.013
Hispanic	94	2.912	0.810	0.084	2.746	3.078
Mixed Race	18	2.681	0.861	0.203	2.252	3.109
Other	15	3.100	0.625	0.161	2.754	3.446
Total	600	2.905	0.764	0.031	2.844	2.967
<i>GSE Scale</i>						
Native American	13	2.487	0.209	0.058	2.361	2.614
Asian	38	2.792	0.461	0.075	2.640	2.943
Black	356	2.560	0.356	0.019	2.522	2.598
White	66	2.575	0.465	0.057	2.461	2.689
Hispanic	94	2.517	0.369	0.038	2.441	2.592
Mixed Race	18	2.514	0.316	0.074	2.357	2.671
Other	15	2.766	0.547	0.141	2.463	3.069
Total	600	2.572	0.390	0.016	2.540	2.603
<i>Motivational Orientation EPS A-Form</i>						
Native American	13	3.289	0.552	0.153	2.956	3.623
Asian	38	3.260	0.488	0.079	3.100	3.421
Black	356	3.151	0.553	0.029	3.094	3.209
White	66	2.891	0.689	0.085	2.722	3.060
Hispanic	94	3.095	0.491	0.051	2.994	3.195
Mixed Race	18	3.011	0.617	0.145	2.704	3.317
Other	15	3.093	0.427	0.110	2.857	3.330
Total	600	3.118	0.561	0.023	3.073	3.163
<i>Motivational Orientation of Communication Improvement</i>						
Native American	11	2.803	1.011	0.305	2.124	3.482
Asian	38	3.504	0.545	0.088	3.325	3.683
Black	347	3.216	0.770	0.041	3.135	3.297
White	66	2.735	0.996	0.123	2.490	2.980
Hispanic	94	3.316	0.824	0.085	3.147	3.484
Mixed Race	18	2.991	0.954	0.225	2.516	3.465
Other	15	3.344	0.832	0.215	2.884	3.805
Total	589	3.185	0.826	0.034	3.119	3.252
<i>Motivational Orientation of Social Contact</i>						
Native American	13	3.308	0.808	0.224	2.820	3.796
Asian	37	3.329	0.694	0.114	3.097	3.560
Black	354	2.894	0.926	0.049	2.797	2.991
White	65	2.897	0.918	0.114	2.670	3.125
Hispanic	94	2.982	0.806	0.083	2.817	3.147
Mixed Race	18	2.815	0.943	0.222	2.346	3.284
Other	15	2.944	0.842	0.217	2.478	3.411
Total	596	2.943	0.894	0.037	2.871	3.015

(table continues)

	n	(\bar{x})	SD	Std. Error	95% Confidence Interval	
					Lower	Upper
Motivational Orientation of Educational Preparation						
Native American	12	3.597	0.500	0.144	3.280	3.915
Asian	38	3.469	0.598	0.097	3.273	3.666
Black	350	3.339	0.568	0.030	3.279	3.399
White	65	3.049	0.704	0.087	2.874	3.223
Hispanic	94	3.271	0.611	0.063	3.146	3.396
Mixed Race	18	3.204	0.523	0.123	2.944	3.464
Other	15	3.311	0.648	0.167	2.952	3.670
Total	592	3.305	0.599	0.025	3.257	3.354
Motivational Orientation of Professional Advancement						
Native American	13	3.603	0.587	0.163	3.248	3.958
Asian	36	3.481	0.619	0.103	3.272	3.691
Black	353	3.581	0.588	0.031	3.520	3.643
White	66	3.225	0.808	0.099	3.026	3.423
Hispanic	94	3.550	0.566	0.058	3.434	3.666
Mixed Race	18	3.407	0.493	0.116	3.162	3.652
Other	15	3.478	0.693	0.179	3.094	3.861
Total	595	3.523	0.622	0.026	3.473	3.573
Motivational Orientation of Family Togetherness						
Native American	13	3.090	0.832	0.231	2.587	3.593
Asian	38	3.070	0.776	0.126	2.815	3.325
Black	350	2.829	0.946	0.051	2.729	2.928
White	66	2.626	0.905	0.111	2.404	2.849
Hispanic	90	2.850	0.925	0.098	2.656	3.044
Mixed Race	18	2.750	0.987	0.233	2.259	3.241
Other	15	2.856	1.017	0.263	2.292	3.419
Total	590	2.829	0.930	0.038	2.754	2.904
Motivational Orientation of Social Stimulation						
Native American	13	2.936	0.807	0.224	2.448	3.423
Asian	38	2.711	0.838	0.136	2.435	2.986
Black	348	2.961	0.939	0.050	2.592	2.790
White	66	2.457	0.909	0.112	2.234	2.681
Hispanic	93	2.425	0.938	0.097	2.232	2.618
Mixed Race	18	2.583	0.882	0.208	2.145	3.022
Other	14	2.226	0.525	0.140	1.923	2.530
Total	590	2.615	0.923	0.038	2.541	2.690
Motivational Orientation of Cognitive Interest						
Native American	13	3.564	0.469	0.130	3.281	3.848
Asian	37	3.315	0.603	0.099	3.114	3.516
Black	354	3.532	0.560	0.030	3.473	3.590
White	66	3.263	0.758	0.093	3.076	3.449
Hispanic	94	3.284	0.546	0.056	3.172	3.395
Mixed Race	18	3.324	0.783	0.184	2.935	3.713
Other	14	3.560	0.622	0.166	3.200	3.919
Total	596	3.444	0.602	0.025	3.396	3.493

Table 34 and Figure 24 present the results of the analyses of variance conducted. Statistically significant correlations were found between racial identification and the RAACE Scale ($p = .001$), the GSE Scale ($p = .004$), the Motivational Orientation EPS A-Form ($p = .011$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of education preparation ($p = .003$), the motivational orientation of professional advancement ($p = .003$), the motivational orientation of social stimulation ($p = .047$), and the motivational orientation of cognitive interest ($p = .001$). These results indicate significant differences in mean scores on these measures on the basis of racial identification.

Table 34

ANOVA Output Summary Table on Racial Identification

<i>Variable</i>	<i>Sources of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>RAACE Scale</i>						
	Between Groups	3.593	6	.599	4.452	.001
	Within Groups	79.751	593	.134		
	Total	83.344	599			
<i>SNDM Scale</i>						
	Between Groups	2.018	6	.336	.574	.751
	Within Groups	347.552	593	.586		
	Total	349.570	599			
<i>GSE Scale</i>						
	Between Groups	2.888	6	.481	3.228	.004
	Within Groups	88.436	593	.149		
	Total	91.324	599			
<i>Motivational Orientations EPS A-Form</i>						
	Between Groups	5.213	6	.869	2.810	.011
	Within Groups	183.368	593	.309		
	Total	188.581	599			
<i>Communication. Improvement</i>						
	Between Groups	21.856	6	3.643	5.592	.001
	Within Groups	379.106	582	.651		
	Total	400.961	588			

(table continues)

<i>Variable</i>	<i>Sources of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>Social Contact</i>						
	Between Groups	8.660	6	1.443	1.819	.093
	Within Groups	467.391	589	.794		
	Total	476.052	595			
<i>Educational Preparation</i>						
	Between Groups	7.018	6	1.170	3.333	.003
	Within Groups	205.291	585	.351		
	Total	212.309	591			
<i>Professional Advancement</i>						
	Between Groups	7.549	6	1.258	3.328	.003
	Within Groups	222.324	588	.378		
	Total	229.873	594			
<i>Family Togetherness</i>						
	Between Groups	5.970	6	.995	1.152	.331
	Within Groups	503.685	583	.864		
	Total	509.655	589			
<i>Social Stimulation</i>						
	Between Groups	10.848	6	1.808	2.147	.047
	Within Groups	491.037	583	.842		
	Total	501.885	589			
<i>Cognitive Interest</i>						
	Between Groups	8.546	6	1.424	4.054	.001
	Within Groups	206.914	589	.351		
	Total	215.460	595			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

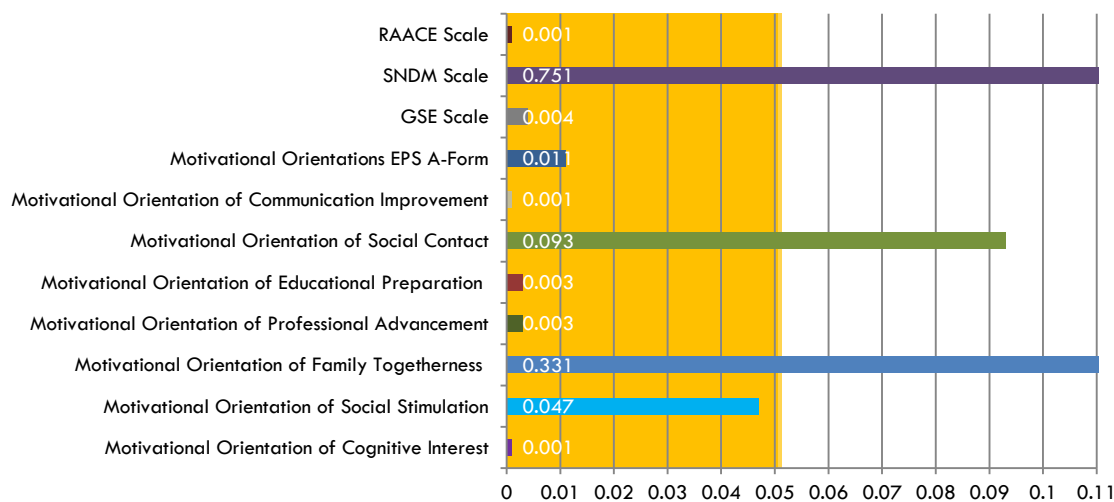


Figure 24. Study findings for research question 4–Racial identification.

Employment Status

45. There is no significant relationship between employment status and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on attitude at the $\alpha .05$ level, $F(2,593) = .492, p = .612, MS_{error} = .137$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that marital status did not have a statistically significant effect on employment status.

46. There is no significant relationship between employment status and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on subjective norm (as measured by the Subjective Norm Direct Measure Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on subjective norm at the $\alpha .05$ level, $F(2,593) = 1.657, p = .192, MS_{error} = .582$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on subjective norm.

47. There is no significant relationship between employment status and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on general self-efficacy at the α .05 level, $F(2,593) = 2.047$, $p = .130$, $MS_{error} = .150$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on general self-efficacy.

48. There is no significant relationship between employment status and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on motivational orientation at the α .05 level, $F(2,593) = 2.145$, $p = .118$, $MS_{error} = .314$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on motivational orientation.

49. There is no significant relationship between employment status and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of employment status on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(2,582) = 4.789, p = .009, MS_{error} = .676$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that employment status did have a statistically significant effect on the motivational orientation of communication improvement.

50. There is no significant relationship between employment status and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on the motivational orientation of social contact at the $\alpha .05$ level, $F(2,589) = .688, p = .503, MS_{error} = .802$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be

rejected. These results suggest that employment status did not have a statistically significant effect on the motivational orientation of social contact.

51. There is no significant relationship between employment status and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(2,585) = .015, p = .986, MS_{error} = .362$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on the motivational orientation of educational preparation.

52. There is no significant relationship between employment status and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of employment status on the motivational orientation of professional

advancement at the $\alpha .05$ level, $F(2,588) = 3.166, p = .043, MS_{error} = .385$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that employment status did have a statistically significant effect on the motivational orientation of professional advancement.

53. There is no significant relationship between employment status and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(2,583) = 2.020, p = .134, MS_{error} = .863$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on the motivational orientation of family togetherness.

54. There is no significant relationship between employment status and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of social stimulation

(as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of employment status on the motivational orientation of social stimulation at the α .05 level, $F(2,583) = .042$, $p = .959$, $MS_{error} = .857$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that employment status did not have a statistically significant effect on the motivational orientation of social stimulation.

55. There is no significant relationship between employment status and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of employment status on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of employment status on the motivational orientation of cognitive interest at the α .05 level, $F(2,589) = 4.506$, $p = .011$, $MS_{error} = .360$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that employment status did have a statistically significant effect on the motivational orientation of cognitive interest.

Following this, a series of ANOVAs was conducted focusing upon employment status. Descriptive statistics associated with these analyses are summarized in Table 35. As in the previous results, only small differences were indicated in these measures on the basis of employment status.

Table 35

ANOVA Descriptives Table on Employment Status

Variable	Category	N	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
RAACE Scale	Employed FT	101	2.679	0.299	0.030	2.620	2.738
	Employed PT	161	2.723	0.342	0.027	2.670	2.777
	Not Employed	334	2.715	0.401	0.022	2.672	2.758
	Total	596	2.711	0.370	0.015	2.681	2.741
SNDM Scale	Employed FT	101	2.777	0.814	0.081	2.617	2.938
	Employed PT	161	2.925	0.701	0.055	2.816	3.035
	Not Employed	334	2.930	0.776	0.042	2.847	3.014
	Total	596	2.903	0.764	0.031	2.842	2.965
GSE Scale	Employed FT	101	2.505	0.372	0.037	2.431	2.578
	Employed PT	161	2.559	0.394	0.031	2.498	2.621
	Not Employed	334	2.592	0.388	0.021	2.551	2.634
	Total	596	2.569	0.388	0.016	2.537	2.600
MO EPS A-Form	Employed FT	101	3.189	0.549	0.055	3.080	3.297
	Employed PT	161	3.047	0.648	0.051	2.946	3.147
	Not Employed	334	3.127	0.517	0.028	3.071	3.183
	Total	596	3.116	0.562	0.023	3.070	3.161
Comm. Improvement	Employed FT	99	3.370	0.801	0.080	3.211	3.530
	Employed PT	156	3.045	0.923	0.074	2.899	3.191
	Not Employed	330	3.192	0.777	0.043	3.108	3.276
	Total	585	3.183	0.828	0.034	3.116	3.250
Social Contact	Employed FT	101	3.005	0.904	0.090	2.826	3.184
	Employed PT	160	2.876	0.943	0.075	2.729	3.023
	Not Employed	331	2.949	0.869	0.048	2.855	3.043
	Total	592	2.939	0.895	0.037	2.866	3.011
Educational Prep.	Employed FT	99	3.308	0.632	0.064	3.182	3.434
	Employed PT	160	3.309	0.616	0.049	3.213	3.406
	Not Employed	329	3.300	0.585	0.032	3.237	3.364
	Total	588	3.304	0.600	0.025	3.256	3.353
Professional Advance.	Employed FT	101	3.635	0.512	0.051	3.534	3.736
	Employed PT	159	3.438	0.784	0.062	3.315	3.561
	Not Employed	331	3.531	0.559	0.031	3.471	3.592
	Total	591	3.524	0.623	0.026	3.474	3.574

(table continues)

Variable	Category	N	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
Family Togetherness	Employed FT	100	2.965	0.924	0.092	2.782	3.148
	Employed PT	158	2.727	0.956	0.076	2.576	2.877
	Not Employed	328	2.828	0.917	0.051	2.729	2.928
	Total	586	2.824	0.931	0.038	2.749	2.900
Social Stimulation	Employed FT	101	2.587	0.961	0.096	2.398	2.777
	Employed PT	157	2.618	0.941	0.075	2.470	2.766
	Not Employed	328	2.616	0.907	0.050	2.518	2.715
	Total	586	2.612	0.924	0.038	2.537	2.687
Cognitive Interest	Employed FT	101	3.469	0.583	0.058	3.354	3.584
	Employed PT	160	3.322	0.735	0.058	3.207	3.437
	Not Employed	331	3.493	0.528	0.029	3.436	3.550
	Total	592	3.443	0.603	0.025	3.394	3.491

Table 36 and Figure 25 present the results of the analyses of variance conducted.

As indicated in Table 36, statistical significance was found with regard to employment status and the motivational orientation of communication improvement ($p = .009$), the motivational orientation of professional advancement ($p = .009$), and the motivational orientation of cognitive interest ($p = .009$). These results indicate that these three measures differed significantly on the basis of employment status.

Table 36

ANOVA Output Summary Table on Employment Status

Variable	Source of Variance	SS	df	MS	F	Sig.
						p-value
RAACE Scale						
	Between Groups	.135	2	.067	.492	.612
	Within Groups	81.298	593	.137		
	Total	81.433	595			
SNDM Scale						
	Between Groups	1.929	2	.965	1.657	.192
	Within Groups	345.287	593	.582		
	Total	347.217	595			

(table continues)

Variable	Source of Variance	SS	df	MS	F	Sig.
						p-value
<i>GSE Scale</i>						
	Between Groups	.613	2	.306	2.047	.130
	Within Groups	88.801	593	.150		
	Total	89.414	595			
<i>Motivational Orientations EPS A-Form</i>						
	Between Groups	1.348	2	.674	2.145	.118
	Within Groups	186.305	593	.314		
	Total	187.653	595			
<i>Motivational Orientation of Communication Improvement</i>						
	Between Groups	6.478	2	3.239	4.789	.009
	Within Groups	393.673	582	.676		
	Total	400.151	584			
<i>Motivational Orientation of Social Contact</i>						
	Between Groups	1.104	2	.552	.688	.503
	Within Groups	472.388	589	.802		
	Total	473.492	591			
<i>Motivational Orientation of Educational Preparation</i>						
	Between Groups	.011	2	.005	.015	.986
	Within Groups	211.516	585	.362		
	Total	211.527	587			
<i>Motivational Orientation of Professional Advancement</i>						
	Between Groups	2.440	2	1.220	3.166	.043
	Within Groups	226.637	588	.385		
	Total	229.077	590			
<i>Motivational Orientation of Family Togetherness</i>						
	Between Groups	3.487	2	1.743	2.020	.134
	Within Groups	503.298	583	.863		
	Total	506.785	585			
<i>Motivational Orientation of Social Stimulation</i>						
	Between Groups	.072	2	.036	.042	.959
	Within Groups	499.412	583	.857		
	Total	499.484	585			
<i>Motivational Orientation of Cognitive Interest</i>						
	Between Groups	3.240	2	1.620	4.506	.011
	Within Groups	211.752	589	.360		
	Total	214.992	591			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

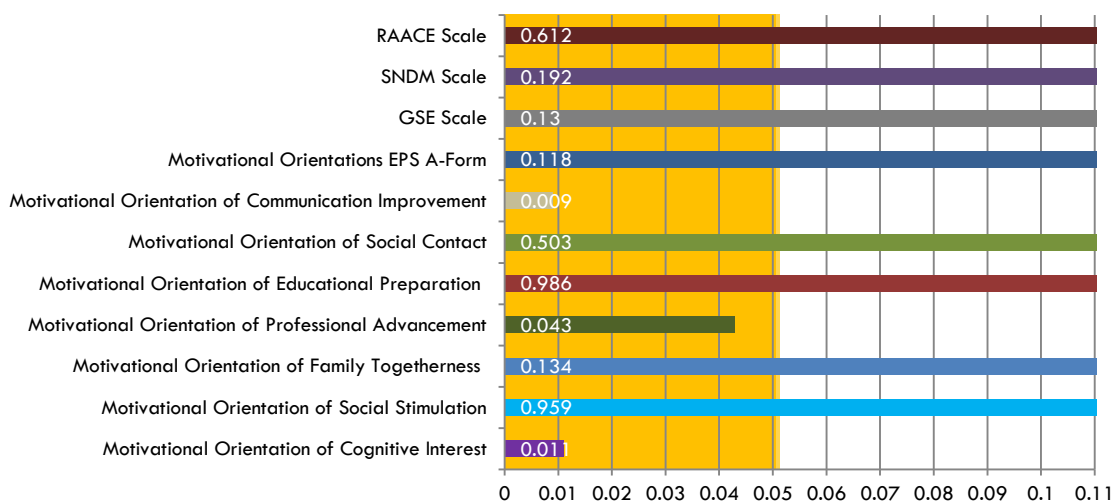


Figure 25. Study findings for research question 4—Employment status.

Which Campus the Respondent was Attending

56. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on attitude at the α .05 level, $F(1,591) = 1.589$, $p = .208$, $MS_{error} = .139$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on attitude.

57. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on subjective norm at the α .05 level, $F(1,591) = 3.063$, $p = .081$, $MS_{error} = .582$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on subjective norm.

58. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on general self-efficacy at the α .05 level, $F(1,591) = .221$, $p = .638$, $MS_{error} = .150$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must

be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on general self-efficacy.

59. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on motivational orientation at the $\alpha .05$ level, $F(1,591) = .209, p = .648, MS_{error} = .314$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on motivational orientation.

60. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was

taken on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(1,580) = .409, p = .523, MS_{error} = .681$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of communication improvement.

61. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of social contact at the $\alpha .05$ level, $F(1,587) = .207, p = .649, MS_{error} = .801$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which

campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of social contact.

62. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(1,583) = .532, p = .466, MS_{error} = .356$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of educational preparation.

63. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(1,586) = .002, p = .964, MS_{error} = .382$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of professional advancement.

64. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(1,581) = 2.378, p = .124$,

$MS_{error} = .861$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of family togetherness.

65. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(1,581) = .057, p = .811, MS_{error} = .856$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of social stimulation.

66. There is no significant relationship between which campus the respondent was attending at the time the survey was taken and the motivational orientation of

cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which campus the respondent was attending at the time the survey was taken on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(1,587) = .001, p = .970, MS_{error} = .361$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which campus the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of cognitive interest.

A series of ANOVAs were then conducted focusing upon which campus the respondent was attending at the time the survey was taken. ANOVA was selected for these analyses as the independent variable, campus location, was nominal. Nominal variables are not put in any particular order (Cohen et al., 2003). There is no logical basis for saying that one category such as "urban campus" is higher or lower than another category such as "suburban campus." A nominal variable can be transformed in any way that neither combines nor splits levels of the variable. That is, the levels of the variable are simply labels, with no inherent meaning (Cohen et al., 2003). Table 37 presents a

series of descriptive statistics conducted in relation to these analyses. Generally, only small differences in these measures were found on the basis of campus location.

Table 37

ANOVA Descriptives Table on Which Campus the Respondent was Attending

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
RAACE Scale	Urban	295	2.696	0.353	0.021	2.655	2.736
	Suburban	298	2.734	0.391	0.023	2.690	2.779
	Total	593	2.715	0.373	0.015	2.685	2.745
SNDM Scale	Urban	295	2.853	0.793	0.046	2.762	2.943
	Suburban	298	2.962	0.732	0.042	2.879	3.046
	Total	593	2.908	0.765	0.031	2.846	2.969
GSE Scale	Urban	295	2.582	0.374	0.022	2.539	2.624
	Suburban	298	2.567	0.400	0.023	2.521	2.612
	Total	593	2.574	0.387	0.016	2.543	2.605
MO EPS A-Form	Urban	295	3.106	0.540	0.031	3.044	3.168
	Suburban	298	3.127	0.579	0.034	3.061	3.193
	Total	593	3.116	0.560	0.023	3.071	3.162
Comm. Improvement	Urban	289	3.206	0.773	0.045	3.117	3.296
	Suburban	293	3.163	0.874	0.051	3.062	3.263
	Total	582	3.184	0.825	0.034	3.117	3.252
Social Contact	Urban	294	2.921	0.873	0.051	2.821	3.021
	Suburban	295	2.955	0.916	0.053	2.850	3.060
	Total	589	2.938	0.895	0.037	2.866	3.010
Educational Prep.	Urban	292	3.288	0.573	0.034	3.222	3.354
	Suburban	293	3.324	0.620	0.036	3.252	3.395
	Total	585	3.306	0.597	0.025	3.257	3.354
Professional Advance.	Urban	291	3.526	0.614	0.036	3.455	3.597
	Suburban	297	3.528	0.622	0.036	3.457	3.599
	Total	588	3.527	0.618	0.025	3.477	3.577
Family Togetherness	Urban	289	2.765	0.937	0.055	2.656	2.873
	Suburban	294	2.883	0.919	0.054	2.778	2.989
	Total	583	2.824	0.929	0.038	2.749	2.900

(table continues)

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
Social Stimulation	Urban	290	2.621	0.911	0.054	2.515	2.726
	Suburban	293	2.602	0.939	0.055	2.494	2.710
	Total	583	2.611	0.925	0.038	2.536	2.687
Cognitive Interest	Urban	292	3.444	0.589	0.034	3.376	3.512
	Suburban	297	3.442	0.612	0.035	3.372	3.512
	Total	589	3.443	0.600	0.025	3.395	3.492

Next, Table 38 and Figure 26 present the results of these analyses of variance. No significant results were found in regard to which campus location the respondent was attending and the RAACE Scale (p -value = .208), the SNDM Scale (p -value = .081), the GSE Scale (p -value = .638), the Motivation Orientation EPS A-Form (p -value = .648), or any of the seven motivational orientations: the motivational orientation of communication improvement (p -value = .523), the motivational orientation of social contact (p -value = .649), the motivational orientation of educational preparation (p -value = .466), the motivational orientation of professional advancement (p -value = .964), the motivational orientation of family togetherness (p -value = .124), the motivational orientation of social stimulation (p -value = .811), and the motivational orientation of cognitive interest (p -value = .970). No significant results were found in these analyses, indicating no significant difference in these measures on the basis of which campus the respondent was attending at the time the survey was taken.

Table 38

ANOVA Output Summary Table on Which Campus Location Respondent was Attending

Variable	Source of Variance	SS	Df	MS	F	Sig.
						p-value
RAACE Scale						
	Between Groups	.221	1	.221	1.589	.208
	Within Groups	82.175	591	.139		
	Total	82.396	592			
SNDM Scale						
	Between Groups	1.784	1	1.784	3.063	.081
	Within Groups	344.223	591	.582		
	Total	346.008	592			
GSE Scale						
	Between Groups	.033	1	.033	.221	.638
	Within Groups	88.544	591	.150		
	Total	88.577	592			
Motivational Orientation EPS A-Form						
	Between Groups	.065	1	.065	.209	.648
	Within Groups	185.291	591	.314		
	Total	185.356	592			
Motivational Orientation of Communication Improvement						
	Between Groups	.279	1	.279	.409	.523
	Within Groups	395.038	580	.681		
	Total	395.317	581			
Motivational Orientation of Social Contact						
	Between Groups	.166	1	.166	.207	.649
	Within Groups	470.433	587	.801		
	Total	470.599	588			
Motivational Orientation of Educational Preparation						
	Between Groups	.189	1	.189	.532	.466
	Within Groups	207.669	582	.356		
	Total	207.859	584			
Motivational Orientation of Professional Advancement						
	Between Groups	.001	1	.001	.002	.964
	Within Groups	223.934	586	.382		
	Total	223.935	587			
Motivational Orientation of Family Togetherness						
	Between Groups	2.047	1	2.047	2.378	.124
	Within Groups	500.213	581	.861		
	Total	502.260	582			
Motivational Orientation of Social Stimulation						
	Between Groups	.049	1	.049	.057	.811
	Within Groups	497.482	581	.856		
	Total	497.531	582			
Motivational Orientation of Cognitive Interest						
	Between Groups	.001	1	.001	.001	.970
	Within Groups	211.677	587	.361		
	Total	211.678	588			

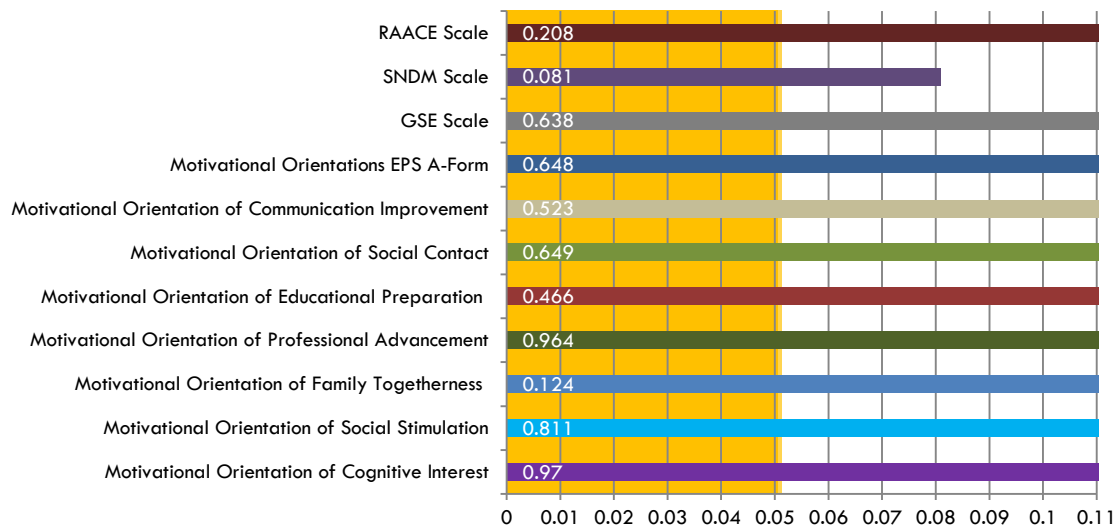


Figure 26. Study findings for research question 4—Which campus attending.

Which ABE Class the Respondent was Attending

67. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on attitude at the $\alpha .05$ level, $F(2,584) = 1.122, p = .326, MS_{error} = .141$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which ABE class the respondent was

attending at the time the survey was taken did not have a statistically significant effect on attitude.

68. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on subjective norm at the $\alpha .05$ level, $F(2,584) = 3.106$, $p = .046$, $MS_{error} = .575$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on subjective norm.

69. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which ABE class the respondent was attending at the time the

survey was taken on general self-efficacy at the $\alpha .05$ level, $F(2,584) = 1.854$, $p = .157$, $MS_{error} = .152$. Since the p -value (*Sig.*) was $> .05$ the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which ABE class the respondent was attending at the time the survey was taken did not have a statistically significant effect on general self-efficacy.

70. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on motivational orientation at the $\alpha .05$ level, $F(2,584) = 9.324$, $p = .001$, $MS_{error} = .307$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on motivational orientation.

71. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(2,573) = 17.524, p = .001, MS_{error} = .648$. Since the p -value ($Sig.$) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on the motivational orientation of communication improvement.

72. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of social contact at the $\alpha .05$ level, $F(2,580) = 6.504, p = .002, MS_{error}$

= .783. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on the motivational orientation of social contact.

73. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(2,576) = 2.542, p = .080, MS_{error} = .359$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which ABE class the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of educational preparation.

74. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of

professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of professional advancement at the α .05 level, $F(2,579) = 1.169, p = .311, MS_{error} = .390$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which ABE class the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of professional advancement.

75. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the

respondent was attending at the time the survey was taken on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(2,575) = 6.114, p = .002, MS_{error} = .852$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on the motivational orientation of family togetherness.

76. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(2,574) = 3.557, p = .029, MS_{error} = .832$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that which ABE class the respondent was attending at the time the survey was taken did have a statistically significant effect on the motivational orientation of social stimulation.

77. There is no significant relationship between which ABE class the respondent was attending at the time the survey was taken and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of which ABE class the respondent was attending at the time the survey was taken on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(2,580) = 2.800, p = .062, MS_{error} = .358$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that which ABE class the respondent was attending at the time the survey was taken did not have a statistically significant effect on the motivational orientation of cognitive interest.

Next, analyses of variance were also conducted on the variables measuring which ABE class the respondent was attending at the time the survey was taken. This is also a nominal measure. Nominal variables are not put in any particular order (Cohen et al., 2003). There is no logical basis for saying that one category such as "ABE mathematics class" is higher or lower than another category such as "ABE reading class". A nominal variable can be transformed in any way that neither combines nor splits levels of the variable. That is, the levels of the variable are simply labels, with no inherent meaning

(Cohen et al., 2003). Descriptive statistics associated with these analyses are summarized in Table 39. Only modest differences in these measures were indicated on the basis of which ABE class the respondent was attending at the time the survey was taken.

Table 39

ANOVA Descriptives Table on Which ABE Class the Respondent was Attending

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
RAACE Scale	ABE Mathematics	192	2.681	0.347	0.025	2.631	2.730
	ABE Reading	200	2.732	0.393	0.028	2.677	2.786
	ABE Writing	195	2.728	0.382	0.027	2.674	2.782
	Total	587	2.714	0.375	0.015	2.683	2.744
SNDM Scale	ABE Mathematics	192	2.826	0.742	0.054	2.720	2.931
	ABE Reading	200	3.008	0.765	0.054	2.901	3.114
	ABE Writing	195	2.868	0.768	0.055	2.760	2.976
	Total	587	2.902	0.761	0.031	2.840	2.963
GSE Scale	ABE Mathematics	192	2.529	0.399	0.029	2.472	2.586
	ABE Reading	200	2.595	0.400	0.028	2.539	2.651
	ABE Writing	195	2.595	0.368	0.026	2.543	2.647
	Total	587	2.573	0.390	0.016	2.542	2.605
MO EPS A-Form	ABE Mathematics	192	2.975	0.614	0.044	2.888	3.063
	ABE Reading	200	3.156	0.535	0.038	3.081	3.230
	ABE Writing	195	3.207	0.509	0.036	3.135	3.279
	Total	587	3.114	0.562	0.023	3.068	3.159
Comm. Improvement	ABE Mathematics	189	2.898	0.935	0.068	2.764	3.032
	ABE Reading	197	3.266	0.787	0.056	3.156	3.377
	ABE Writing	190	3.361	0.674	0.049	3.264	3.457
	Total	576	3.177	0.828	0.034	3.109	3.244
Social Contact	ABE Mathematics	192	2.752	0.922	0.067	2.620	2.883
	ABE Reading	197	3.019	0.847	0.060	2.900	3.138
	ABE Writing	194	3.046	0.884	0.063	2.920	3.171
	Total	583	2.940	0.893	0.037	2.867	3.012

(table continues)

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
Educational Prep.	ABE Mathematics	191	3.223	0.636	0.046	3.133	3.314
	ABE Reading	196	3.308	0.589	0.042	3.225	3.391
	ABE Writing	192	3.360	0.571	0.041	3.279	3.442
	Total	579	3.297	0.601	0.025	3.248	3.346
Professional Advance.	ABE Mathematics	191	3.469	0.656	0.047	3.375	3.562
	ABE Reading	198	3.509	0.605	0.043	3.424	3.594
	ABE Writing	193	3.566	0.613	0.044	3.479	3.653
	Total	582	3.515	0.625	0.026	3.464	3.565
Family Togetherness	ABE Mathematics	190	2.640	0.991	0.072	2.499	2.782
	ABE Reading	197	2.882 5	0.873	0.062	2.760	3.005
	ABE Writing	191	2.956	0.903	0.065	2.827	3.085
	Total	578	2.827	0.931	0.039	2.751	2.903
Social Stimulation	ABE Mathematics	191	2.474	0.932	0.067	2.341	2.607
	ABE Reading	197	2.681	0.915	0.065	2.553	2.810
	ABE Writing	189	2.697	0.889	0.068	2.569	2.824
	Total	577	2.618	0.916	0.038	2.543	2.692
Cognitive Interest	ABE Mathematics	191	3.366	0.649	0.047	3.273	3.458
	ABE Reading	199	3.450	0.569	0.040	3.370	3.529
	ABE Writing	193	3.509	0.576	0.041	3.428	3.591
	Total	583	3.442	0.600	0.025	3.393	3.491

Table 40 and Figure 27 present the results of these ANOVAs. As indicated in the following table, statistical significance was found with regard to which ABE class the respondent was attending at the time the survey was taken and the SNDM Scale ($p = .046$), the Motivational Orientation EPS A-Form ($p = .001$), the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .002$), the motivational orientation of family togetherness ($p = .002$), and the motivational orientation of social stimulation ($p = .029$). These results indicate that the

means of these measures varied significantly on the basis of which ABE class the respondent was attending at the time the survey was taken.

Table 40

ANOVA Output Summary Table on Which ABE Class Respondent was Attending

<i>Variable</i>	<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>RAACE Scale</i>						
	Between Groups	.315	2	.158	1.122	.326
	Within Groups	82.090	584	.141		
	Total	82.406	586			
<i>SNDM Scale</i>						
	Between Groups	3.575	2	1.788	3.106	.046
	Within Groups	336.056	584	.575		
	Total	339.631	586			
<i>GSE Scale</i>						
	Between Groups	.562	2	.281	1.854	.157
	Within Groups	88.499	584	.152		
	Total	89.061	586			
<i>Motivational Orientation EPS A-Form</i>						
	Between Groups	5.721	2	2.861	9.324	.001
	Within Groups	179.174	584	.307		
	Total	184.895	586			
<i>Motivational Orientation of Communication Improvement</i>						
	Between Groups	22.720	2	11.360	17.524	.001
	Within Groups	371.446	573	.648		
	Total	394.166	575			
<i>Motivational Orientation of Social Contact</i>						
	Between Groups	10.183	2	5.092	6.504	.002
	Within Groups	454.057	580	.783		
	Total	464.240	582			
<i>Motivational Orientation of Educational Preparation</i>						
	Between Groups	1.826	2	.913	2.542	.080
	Within Groups	206.841	576	.359		
	Total	208.667	578			
<i>Motivational Orientation of Professional Advancement</i>						
	Between Groups	.913	2	.456	1.169	.311
	Within Groups	226.047	579	.390		
	Total	226.959	581			
<i>Motivational Orientation of Family Togetherness</i>						
	Between Groups	10.421	2	5.210	6.114	.002
	Within Groups	489.975	575	.852		
	Total	500.395	577			

(table continues)

Variable	Source of Variance	SS	df	MS	F	Sig.
						p-value
Motivational Orientation of Social Stimulation						
	Between Groups	5.922	2	2.961	3.557	.029
	Within Groups	477.797	574	.832		
	Total	483.720	576			
Motivational Orientation of Cognitive Interest						
	Between Groups	2.006	2	1.003	2.800	.062
	Within Groups	207.725	580	.358		
	Total	209.731	582			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

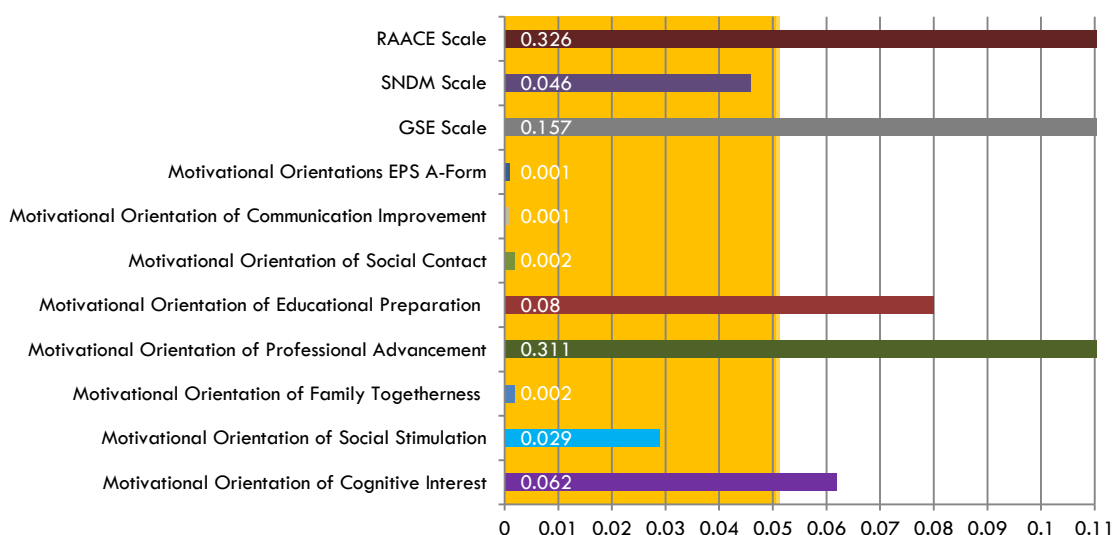


Figure 27. Study findings for research question 4—Which ABE class attending

Plans to Enroll in Another ABE Mathematics Class

78. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). The one-way, between subjects, ANOVA failed to

reveal a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on attitude at the $\alpha .05$ level, $F(3,593) = .053, p = .984, MS_{error} = .140$. Since the p -value (*Sig.*) was $> .05$ the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that the respondents' plans to enroll in another ABE mathematics class did not have a statistically significant effect on attitude.

79. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on subjective norm at the $\alpha .05$ level, $F(3,593) = 17.416, p = .001, MS_{error} = .539$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on subjective norm.

80. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on general self-efficacy at the $\alpha .05$ level, $F(3,593) = 5.400$, $p = .001$, $MS_{error} = .150$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on general self-efficacy.

81. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on motivational orientation at the $\alpha .05$ level, $F(3,593) = 6.029$, $p = .001$, $MS_{error} = .308$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on motivational orientation.

82. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(3,583) = 3.957, p = .008, MS_{error} = .673$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of communication improvement.

83. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects,

ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of social contact at the $\alpha .05$ level, $F(3,589) = 2.896$, $p = .035$, $MS_{error} = .790$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of social contact.

84. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(3,585) = 8.137$, $p = .001$, $MS_{error} = .347$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of educational preparation.

85. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(3,588) = 6.291, p = .001, MS_{error} = .378$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of professional advancement.

86. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects,

ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(3,583) = 2.837, p = .037, MS_{error} = .856$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of family togetherness.

87. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(3,583) = 1.229, p = .298, MS_{error} = .853$. Since the p -value (*Sig.*) was $> .05$ the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that the respondents' plans to enroll in another ABE mathematics class did not have a statistically significant effect on the motivational orientation of social stimulation.

88. There is no significant relationship between the respondents' plans to enroll in another ABE mathematics class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE mathematics class on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(3,589) = 2.680, p = .046, MS_{error} = .360$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE mathematics class did have a statistically significant effect on the motivational orientation of cognitive interest.

The following measure focused upon plans to enroll in another ABE mathematics class. As this measure was nominal, analysis of variance was utilized. Table 41 presents descriptive statistics associated with this study's scale items on the basis of plans to enroll. As indicated in the following table, in general, only small mean differences in these items were found on the basis of whether and when respondents had planned to enroll in another ABE mathematics class.

Table 41

ANOVA Descriptives Table on Plans to Enroll in Another ABE Mathematics Class

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
RAACE Scale	Next Semester	231	2.715	0.418	0.217	2.661	2.769
	W/n 12 months	31	2.710	0.438	0.079	2.549	2.870
	No plan to enroll	107	2.705	0.292	0.028	12.650	2.761
	Not Sure	228	2.722	0.353	0.023	2.676	2.768
	Total	597	2.716	0.374	0.015	2.686	2.746
SNDM Scale	Next Semester	231	3.102	0.722	0.048	3.008	3.195
	W/n 12 months	31	3.153	0.660	0.119	2.911	3.395
	No plan to enroll	107	2.509	0.759	0.073	2.364	2.655
	Not Sure	228	2.855	0.743	0.049	2.758	2.952
	Total	597	2.904	0.764	0.031	2.843	2.966
GSE Scale	Next Semester	231	2.605	0.416	0.027	2.551	2.659
	W/n 12 months	31	2.747	0.447	0.080	2.583	2.911
	No plan to enroll	107	2.466	0.327	0.032	2.403	2.528
	Not Sure	228	2.566	0.373	0.025	2.517	2.614
	Total	597	2.573	0.391	0.016	2.541	2.604
MO EPS A-Form	Next Semester	231	3.226	0.517	0.034	3.159	3.293
	W/n 12 months	31	3.166	0.559	0.100	2.961	3.372
	No plan to enroll	107	2.970	0.672	0.065	2.841	3.098
	Not Sure	228	3.073	0.531	0.035	3.004	3.143
	Total	597	3.119	0.562	0.023	3.073	3.164
Comm. Improvement	Next Semester	227	3.315	0.796	0.053	3.211	3.419
	W/n 12 months	31	3.183	0.767	0.138	2.902	3.464
	No plan to enroll	107	2.998	0.916	0.089	2.823	3.174
	Not Sure	222	3.141	0.802	0.054	3.035	3.247
	Total	587	3.185	0.826	0.034	3.118	3.252
Social Contact	Next Semester	230	3.030	0.901	0.059	2.913	3.147
	W/n 12 months	31	3.081	0.773	0.139	2.797	3.364
	No plan to enroll	106	2.736	0.994	0.097	2.544	2.927
	Not Sure	226	2.939	0.838	0.056	2.829	3.049
	Total	593	2.945	0.893	0.037	2.873	3.017
Educational Prep.	Next Semester	226	3.454	0.539	0.036	3.383	3.524
	W/n 12 months	31	3.220	0.677	0.122	2.972	3.469
	No plan to enroll	107	3.165	0.653	0.063	3.040	3.290
	Not Sure	225	3.233	0.593	0.040	3.155	3.311
	Total	589	3.304	0.600	0.025	3.256	3.353
Professional Advance.	Next Semester	228	3.650	0.504	0.033	3.584	3.716
	W/n 12 months	31	3.478	0.683	0.123	3.228	3.729
	No plan to enroll	106	3.358	0.820	0.080	3.201	3.516
	Not Sure	227	3.474	0.595	0.039	3.396	3.552
	Total	592	3.521	0.623	0.026	3.471	3.572

(table continues)

<i>Variable</i>	<i>Category</i>	<i>n</i>	(\bar{x})	<i>SD</i>	<i>Std. Error</i>	<i>95% CI</i>	
						<i>Lower</i>	<i>Upper</i>
Family Togetherness	Next Semester	226	2.944	0.920	0.061	2.823	3.065
	W/n 12 months	31	3.027	0.794	0.143	2.736	3.318
	No plan to enroll	105	2.705	0.961	0.094	2.519	2.891
	Not Sure	225	2.748	0.931	0.062	2.626	2.870
	Total	587	2.830	0.930	0.038	2.755	2.906
Social Stimulation	Next Semester	228	2.685	0.962	0.064	2.559	2.811
	W/n 12 months	29	2.730	0.857	0.159	2.404	3.056
	No plan to enroll	106	2.494	0.931	0.090	2.314	2.673
	Not Sure	224	2.594	0.887	0.059	2.478	2.711
	Total	587	2.618	0.924	0.038	2.543	2.693
Cognitive Interest	Next Semester	230	3.528	0.565	0.037	3.454	3.601
	W/n 12 months	31	3.473	0.518	0.093	3.283	3.663
	No plan to enroll	106	3.369	0.727	0.071	3.229	3.510
	Not Sure	226	3.389	0.579	0.039	3.313	3.465
	Total	593	3.444	0.603	0.025	3.395	3.492

Table 42 and Figure 28 present the results of these analyses of variance.

Statistical significance was found with regard to plans to enroll in another ABE mathematics class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .008$), the motivational orientation of social contact ($p = .035$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .037$), and the motivational orientation of cognitive interest ($p = .046$). These results indicate that mean measures on all of these items varied significantly on the basis of respondents' plans to enroll in another ABE mathematics class.

Table 42

ANOVA Output Summary Table on Plans to Enroll in Another ABE Mathematics Class

<i>Variable</i>	<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>RAACE Scale</i>						
	Between Groups	.022	3	.007	.053	.984
	Within Groups	83.266	593	.140		
	Total	83.289	596			
<i>SNDM Scale</i>						
	Between Groups	28.164	3	9.388	17.416	.001
	Within Groups	319.658	593	.539		
	Total	347.822	596			
<i>GSE Scale</i>						
	Between Groups	2.424	3	.808	5.400	.001
	Within Groups	88.731	593	.150		
	Total	91.154	596			
<i>Motivational Orientation EPS A-Form</i>						
	Between Groups	5.575	3	1.858	6.029	.001
	Within Groups	182.779	593	.308		
	Total	188.354	596			
<i>Motivational Orientation of Communication Improvement</i>						
	Between Groups	7.986	3	2.662	3.957	.008
	Within Groups	392.187	583	.673		
	Total	400.173	586			
<i>Motivational Orientation of Social Contact</i>						
	Between Groups	6.866	3	2.289	2.896	.035
	Within Groups	465.491	589	.790		
	Total	473.358	592			
<i>Motivational Orientation of Educational Preparation</i>						
	Between Groups	8.482	3	2.827	8.137	.001
	Within Groups	203.250	585	.347		
	Total	211.732	588			
<i>Motivational Orientation of Professional Advancement</i>						
	Between Groups	7.136	3	2.379	6.291	.001
	Within Groups	222.315	588	.378		
	Total	229.451	591			
<i>Motivational Orientation of Family Togetherness</i>						
	Between Groups	7.290	3	2.430	2.837	.037
	Within Groups	499.316	583	.856		
	Total	506.606	586			
<i>Motivational Orientation of Social Stimulation</i>						
	Between Groups	3.146	3	1.049	1.229	.298
	Within Groups	497.276	583	.853		
	Total	500.422	586			
<i>Motivational Orientation of Cognitive Interest</i>						
	Between Groups	2.894	3	.965	2.680	.046
	Within Groups	212.010	589	.360		
	Total	214.904	592			

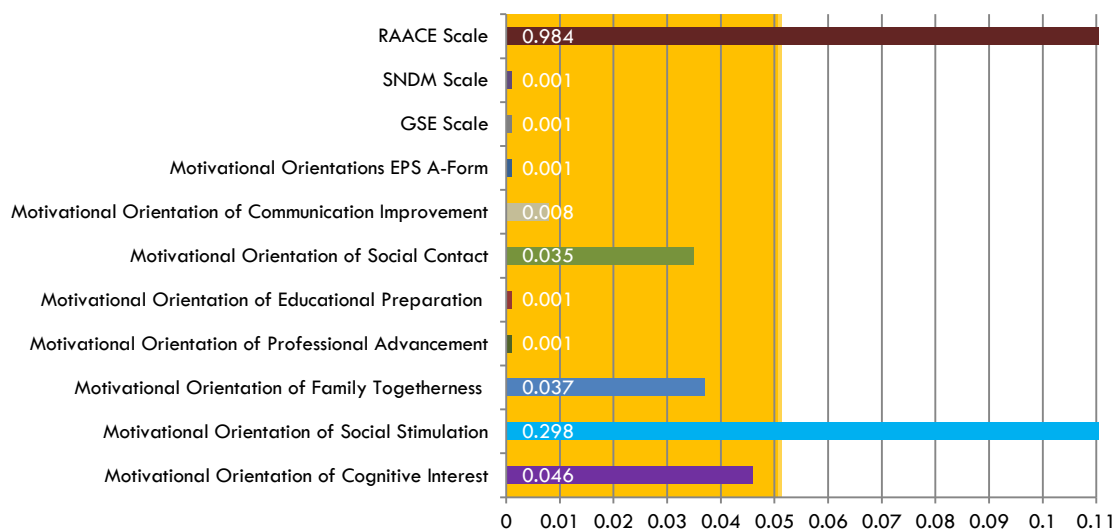


Figure 28. Study findings for research question 4–Plans to enroll in another ABE mathematics class.

Plans to Enroll in Another ABE Reading Class

89. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on attitude (as measured by the Revised Adult Attitudes Toward Continuing Education RAACE] Scale). The one-way, between subjects, ANOVA failed to reveal a reliable significant effect of the respondents' plans to enroll in another ABE [reading class on attitude at the $\alpha .05$ level, $F(3,596) = 1.790$, $p = .148$, $MS_{error} = .139$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that the respondents' plans to

enroll in another ABE reading class did not have a statistically significant effect on attitude.

90. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on subjective norm at the $\alpha .05$ level, $F(3,596) = 16.743, p = .001, MS_{error} = .541$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on subjective norm.

91. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on general self-efficacy

at the $\alpha .05$ level, $F(3,596) = 8.253$, $p = .001$, $MS_{error} = .147$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on general self-efficacy.

92. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on motivational orientation at the $\alpha .05$ level, $F(3,596) = 16.184$, $p = .001$, $MS_{error} = .293$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on motivational orientation.

93. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(3,585) = 22.126, p = .001, MS_{error} = .616$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of communication improvement.

94. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of social contact at the $\alpha .05$ level, $F(3,592) = 9.591, p = .001, MS_{error} = .767$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis

was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of social contact.

95. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(3,588) = 10.031, p = .001, MS_{error} = .343$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of educational preparation.

96. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(3,591) = 8.766, p = .001, MS_{error} = .372$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of professional advancement.

97. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(3,586) = 7.207, p = .001, MS_{error} = .839$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to

enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of family togetherness.

98. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(3,586) = 3.344, p = .019, MS_{error} = .842$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of social stimulation.

99. There is no significant relationship between the respondents' plans to enroll in another ABE reading class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects,

ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE reading class on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(3,592) = 4.532$, $p = .004$, $MS_{error} = .356$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE reading class did have a statistically significant effect on the motivational orientation of cognitive interest.

The next series of analyses, which also utilized ANOVA, focused upon respondents' plan to enroll in another ABE reading class. Descriptive statistics associated with this analysis are presented in Table 43. Small to moderate mean differences in these survey items were indicated on the basis whether and when respondents planned to enroll in another ABE reading class.

Table 43

ANOVA Descriptives Table on Plans to Enroll in Another ABE Reading Class

<i>Variable</i>	<i>Category</i>	<i>n</i>	(\bar{x})	<i>SD</i>	<i>Std. Error</i>	<i>95% CI</i>	
						<i>Lower</i>	<i>Upper</i>
RAACE Scale	Next Semester	198	2.748	0.404	0.029	2.691	2.804
	W/n 12 months	41	2.727	0.427	0.067	2.592	2.862
	No plan to enroll	131	2.652	0.303	0.026	2.600	2.704
	Not Sure	230	2.722	0.369	0.024	2.674	2.770
	Total	600	2.715	0.373	0.015	2.685	2.745
SNDM Scale	Next Semester	198	3.117	0.717	0.051	3.017	3.218
	W/n 12 months	41	3.195	0.606	0.095	3.004	3.386
	No plan to enroll	131	2.574	0.742	0.065	2.446	2.703
	Not Sure	230	2.860	0.767	0.051	2.760	2.959
	Total	600	2.905	0.764	0.031	2.844	2.967

(table continues)

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
GSE Scale	Next Semester	198	2.613	0.402	0.029	2.556	2.669
	W/n 12 months	41	2.791	0.450	0.070	2.649	2.933
	No plan to enroll	131	2.473	0.320	0.028	2.418	2.529
	Not Sure	230	2.554	0.388	0.026	2.503	2.604
	Total	600	2.572	0.390	0.016	2.540	2.603
MO EPS A-Form	Next Semester	198	3.288	0.508	0.036	3.216	3.359
	W/n 12 months	41	3.264	0.459	0.072	3.119	3.409
	No plan to enroll	131	2.882	0.652	0.057	2.769	2.994
	Not Sure	230	3.081	0.511	0.034	3.014	3.147
	Total	600	3.118	0.561	0.023	3.073	3.163
Comm. Improvement	Next Semester	195	3.457	0.674	0.048	3.362	3.553
	W/n 12 months	40	3.350	0.700	0.111	3.126	3.574
	No plan to enroll	127	2.739	0.987	0.088	2.565	2.912
	Not Sure	227	3.173	0.758	0.050	3.073	3.272
	Total	589	3.185	0.826	0.034	3.119	3.252
Social Contact	Next Semester	198	3.125	0.917	0.065	2.997	3.254
	W/n 12 months	41	3.126	0.706	0.110	2.903	3.349
	No plan to enroll	129	2.612	0.947	0.083	2.447	2.777
	Not Sure	228	2.939	0.823	0.054	2.832	3.047
	Total	596	2.943	0.894	0.037	2.871	3.015
Educational Prep.	Next Semester	193	3.474	0.527	0.038	3.399	3.549
	W/n 12 months	41	3.346	0.633	0.099	3.146	3.545
	No plan to enroll	131	3.125	0.656	0.057	3.011	3.238
	Not Sure	227	3.258	0.582	0.039	3.182	3.335
	Total	592	3.305	0.599	0.025	3.257	3.354
Professional Advance.	Next Semester	195	3.688	0.474	0.034	3.621	3.755
	W/n 12 months	41	3.533	0.573	0.089	3.352	3.713
	No plan to enroll	129	3.345	0.776	0.068	3.210	3.480
	Not Sure	230	3.482	0.614	0.040	3.402	3.562
	Total	595	3.523	0.622	0.026	3.473	3.573
Family Togetherness	Next Semester	194	3.015	0.898	0.064	2.888	3.143
	W/n 12 months	41	3.146	0.740	0.116	2.913	3.380
	No plan to enroll	128	2.645	0.946	0.084	2.479	2.810
	Not Sure	227	2.716	0.942	0.063	2.593	2.839
	Total	590	2.829	0.930	0.038	2.754	2.904

(table continues)

<i>Variable</i>	<i>Category</i>	<i>n</i>	(\bar{x})	<i>SD</i>	<i>Std. Error</i>	<i>95% CI</i>	
						<i>Lower</i>	<i>Upper</i>
Social Stimulation	Next Semester	194	2.747	0.971	0.070	2.610	2.885
	W/n 12 months	39	2.739	0.943	0.151	2.433	3.045
	No plan to enroll	130	2.435	0.920	0.081	2.275	2.594
	Not Sure	227	2.584	0.863	0.057	2.472	2.697
	Total	590	2.615	0.923	0.038	2.541	2.690
Cognitive Interest	Next Semester	198	3.526	0.558	0.040	3.448	3.604
	W/n 12 months	41	3.622	0.415	0.065	3.491	3.753
	No plan to enroll	128	3.320	0.731	0.065	3.192	3.448
	Not Sure	229	3.411	0.572	0.038	3.337	3.486
	Total	596	3.444	0.602	0.025	3.396	3.493

Table 44 and Figure 29 present the results of the ANOVAs conducted focusing upon respondents' plans to enroll in another ABE reading class. Statistical significance was found with regard to plans to enroll in another ABE reading class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .001$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .019$), and the motivational orientation of cognitive interest ($p = .004$). These results indicate that with regard to all remaining items, significant mean differences in these items existed on the basis of whether and when respondents plan to enroll in another ABE reading class.

Table 44

ANOVA Output Summary Table on Plans to Enroll in Another ABE Reading Class

<i>Variable</i>	<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>RAACE Scale</i>						
	Between Groups	.744	3	.248	1.790	.148
	Within Groups	82.599	596	.139		
	Total	83.344	599			
<i>SNDM Scale</i>						
	Between Groups	27.171	3	9.057	16.743	.001
	Within Groups	322.399	596	.541		
	Total	349.570	599			
<i>GSE Scale</i>						
	Between Groups	3.642	3	1.214	8.253	.001
	Within Groups	87.682	596	.147		
	Total	91.324	599			
<i>Motivational Orientation EPS A-Form</i>						
	Between Groups	14.206	3	4.735	16.184	.001
	Within Groups	174.375	596	.293		
	Total	188.581	599			
<i>Motivational Orientation of Communication Improvement</i>						
	Between Groups	40.859	3	13.620	22.126	.001
	Within Groups	360.102	585	.616		
	Total	400.961	588			
<i>Motivational Orientation of Social Contact</i>						
	Between Groups	22.064	3	7.355	9.591	.001
	Within Groups	453.987	592	.767		
	Total	476.052	595			
<i>Motivational Orientation of Educational Preparation</i>						
	Between Groups	10.337	3	3.446	10.031	.001
	Within Groups	201.971	588	.343		
	Total	212.309	591			
<i>Motivational Orientation of Professional Advancement</i>						
	Between Groups	9.793	3	3.264	8.766	.001
	Within Groups	220.080	591	.372		
	Total	229.873	594			
<i>Motivational Orientation of Family Togetherness</i>						
	Between Groups	18.136	3	6.045	7.207	.001
	Within Groups	491.519	586	.839		
	Total	509.655	589			

(table continues)

<i>Variable</i>	<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
<i>Motivational Orientation of Social Stimulation</i>						
	Between Groups	8.447	3	2.816	3.344	0.019
	Within Groups	493.438	586	.842		
	Total	501.885	589			
<i>Motivational Orientation of Cognitive Interest</i>						
	Between Groups	4.837	3	1.612	4.532	.004
	Within Groups	210.623	592	.356		
	Total	215.460	595			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

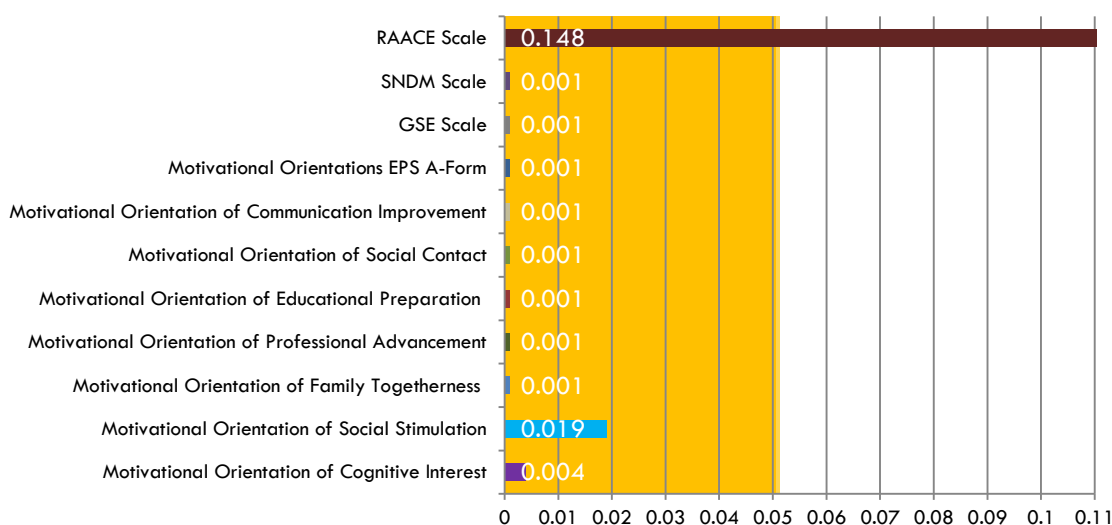


Figure 29. Study findings for research question 4—Plans to enroll in another ABE reading class.

Plans to Enroll in Another ABE Writing Class

100. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on attitude.

The one-way, between subjects, ANOVA failed to reveal a reliable significant

effect of the respondents' plans to enroll in another ABE writing class on attitude at the $\alpha .05$ level, $F(3,596) = .993, p = .395, MS_{error} = .139$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that the respondents' plans to enroll in another ABE writing class did not have a statistically significant effect on attitude.

101. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on subjective norm at the $\alpha .05$ level, $F(3,596) = 15.492, p = .001, MS_{error} = .544$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on subjective norm.

102. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on general self-efficacy at the $\alpha .05$ level, $F(3,596) = 8.934, p = .001, MS_{error} = .147$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on general self-efficacy.

103. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on motivational orientation at the $\alpha .05$ level, $F(3,596) = 13.507, p = .001, MS_{error} = .296$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on motivational orientation.

104. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of communication improvement at the $\alpha .05$ level, $F(3,585) = 17.693, p = .001, MS_{error} = .628$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of communication improvement.

105. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects,

ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of social contact at the $\alpha .05$ level, $F(3,592) = 8.100$, $p = .001$, $MS_{error} = .772$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of social contact.

106. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of educational preparation at the $\alpha .05$ level, $F(3,588) = 9.184$, $p = .001$, $MS_{error} = .345$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of educational preparation.

107. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of professional advancement at the $\alpha .05$ level, $F(3,591) = 6.287, p = .001, MS_{error} = .377$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of professional advancement.

108. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects,

ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of family togetherness at the $\alpha .05$ level, $F(3,586) = 5.657, p = .001, MS_{error} = .845$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of family togetherness.

109. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of social stimulation at the $\alpha .05$ level, $F(3,586) = 3.434, p = .017, MS_{error} = .842$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of social stimulation.

110. There is no significant relationship between the respondents' plans to enroll in another ABE writing class and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A one-way, between subjects, ANOVA was conducted to compare the effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). The one-way, between subjects, ANOVA revealed a reliable significant effect of the respondents' plans to enroll in another ABE writing class on the motivational orientation of cognitive interest at the $\alpha .05$ level, $F(3,592) = 5.578, p = .001, MS_{error} = .354$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that the respondents' plans to enroll in another ABE writing class did have a statistically significant effect on the motivational orientation of cognitive interest.

Whether respondents had planned to enroll in another ABE writing class was focused upon next. Table 45 presents the descriptive statistics associated with this analysis. Mean differences on the basis of plans to enroll were generally found to be small to moderate.

Table 45

ANOVA Descriptives Table on Plans to Enroll in Another ABE Writing Class

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
RAACE Scale	Next Semester	202	2.736	0.425	0.030	2.677	2.795
	W/n 12 months	34	2.758	0.362	0.062	2.632	2.884
	No plan to enroll	127	2.669	0.316	0.028	2.614	2.725
	Not Sure	237	2.716	0.355	0.023	2.671	2.762
	Total	600	2.715	0.373	0.015	2.685	2.745
SNDM Scale	Next Semester	202	3.103	0.742	0.052	3.001	3.206
	W/n 12 months	34	3.221	0.567	0.097	3.023	3.418
	No plan to enroll	127	2.577	0.753	0.067	2.445	2.709
	Not Sure	237	2.868	0.746	0.048	2.773	2.964
	Total	600	2.905	0.764	0.031	2.844	2.967
GSE Scale	Next Semester	202	2.635	0.417	0.029	2.577	2.693
	W/n 12 months	34	2.770	0.464	0.080	2.608	2.931
	No plan to enroll	127	2.456	0.331	0.029	2.398	2.514
	Not Sure	237	2.552	0.366	0.024	2.505	2.598
	Total	600	2.572	0.390	0.016	2.540	2.603
MO EPS A-Form	Next Semester	202	3.263	0.516	0.036	3.192	3.335
	W/n 12 months	34	3.278	0.472	0.081	3.113	3.442
	No plan to enroll	127	2.887	0.641	0.057	2.775	3.001
	Not Sure	237	3.095	0.520	0.034	3.029	3.162
	Total	600	3.118	0.561	0.023	3.073	3.163
Comm. Improvement	Next Semester	199	3.409	0.715	0.051	3.309	3.509
	W/n 12 months	33	3.389	0.670	0.117	3.151	3.627
	No plan to enroll	125	2.765	0.978	0.087	2.592	2.938
	Not Sure	232	3.191	0.760	0.050	3.093	3.289
	Total	589	3.185	0.826	0.034	3.119	3.252
Social Contact	Next Semester	201	3.107	0.912	0.064	2.980	3.234
	W/n 12 months	34	3.123	0.722	0.124	2.871	3.374
	No plan to enroll	126	2.631	0.930	0.083	2.467	2.795
	Not Sure	235	2.945	0.842	0.055	2.836	3.053
	Total	596	2.943	0.894	0.037	2.871	3.015
Educational Prep.	Next Semester	200	3.462	0.555	0.039	3.384	3.539
	W/n 12 months	33	3.379	0.628	0.109	3.156	3.602
	No plan to enroll	127	3.131	0.636	0.056	3.020	3.243
	Not Sure	232	3.255	0.581	0.038	3.180	3.330
	Total	592	3.305	0.599	0.025	3.257	3.354
Professional Advance.	Next Semester	199	3.653	0.508	0.036	3.582	3.724
	W/n 12 months	34	3.495	0.608	0.104	3.283	3.707
	No plan to enroll	125	3.352	0.777	0.070	3.214	3.490
	Not Sure	237	3.508	0.598	0.039	3.432	3.585
	Total	595	3.523	0.622	0.026	3.473	3.573

(table continues)

Variable	Category	n	(\bar{x})	SD	Std. Error	95% CI	
						Lower	Upper
Family Togetherness	Next Semester	198	2.999	0.888	0.063	2.875	3.124
	W/n 12 months	34	3.103	0.789	0.135	2.828	3.378
	No plan to enroll	125	2.641	0.960	0.086	2.471	2.811
	Not Sure	233	2.745	0.940	0.062	2.623	2.866
	Total	590	2.829	0.930	0.038	2.754	2.904
Social Stimulation	Next Semester	197	2.719	0.981	0.070	2.581	2.857
	W/n 12 months	33	2.823	0.800	0.139	2.539	3.107
	No plan to enroll	126	2.414	0.923	0.082	2.251	2.577
	Not Sure	234	2.607	0.873	0.057	2.494	2.719
	Total	590	2.615	0.923	0.038	2.541	2.690
Cognitive Interest	Next Semester	202	3.532	0.559	0.039	3.455	3.610
	W/n 12 months	33	3.677	0.406	0.071	3.533	3.821
	No plan to enroll	124	3.309	0.730	0.066	3.179	3.439
	Not Sure	237	3.408	0.567	0.037	3.335	3.480
	Total	596	3.444	0.602	0.025	3.396	3.493

The results of the analyses of variance conducted on plans to enroll in another ABE writing class are summarized in Table 46 and Figure 30. Statistical significance was found in all cases with the exception of the RAACE Scale. Statistical significance was found with regard to plans to enroll in another ABE writing class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .001$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .017$), and the motivational orientation of cognitive interest ($p = .001$). These results indicate that with regard to all other measures, significant mean differences in these measures existed on the basis of whether and when respondents plan to enroll in another ABE writing class.

Table 46

ANOVA Output Summary Table on Plans to Enroll in Another ABE Writing Class

<i>Variable</i>	<i>Source of Variance</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>Sig. p-value</i>
RAACE Scale						
	Between Groups	.415	3	.138	.993	.395
	Within Groups	82.929	596	.139		
	Total	83.344	599			
SNDM Scale						
	Between Groups	25.287	3	8.429	15.492	.001
	Within Groups	324.283	596	.544		
	Total	349.570	599			
GSE Scale						
	Between Groups	3.930	3	1.310	8.934	.001
	Within Groups	87.394	596	.147		
	Total	91.324	599			
Motivational Orientation EPS A-Form						
	Between Groups	12.005	3	4.002	13.507	.001
	Within Groups	176.576	596	.296		
	Total	188.581	599			
Motivational Orientation of Communication Improvement						
	Between Groups	33.355	3	11.118	17.693	.001
	Within Groups	367.607	585	.628		
	Total	400.961	588			
Motivational Orientation of Social Contact						
	Between Groups	18.770	3	6.257	8.100	.001
	Within Groups	457.282	592	.772		
	Total	476.052	595			
Motivational Orientation of Educational Preparation						
	Between Groups	9.503	3	3.168	9.184	.001
	Within Groups	202.806	588	.345		
	Total	212.309	591			
Motivational Orientation of Professional Advancement						
	Between Groups	7.109	3	2.370	6.287	.001
	Within Groups	222.764	591	.377		
	Total	229.873	594			
Motivational Orientation of Family Togetherness						
	Between Groups	14.345	3	4.782	5.657	.001
	Within Groups	495.310	586	.845		
	Total	509.655	589			
Motivational Orientation of Social Stimulation						
	Between Groups	8.672	3	2.891	3.434	.017
	Within Groups	493.213	586	.842		
	Total	501.885	589			
Motivational Orientation of Cognitive Interest						
	Between Groups	5.923	3	1.974	5.578	.001
	Within Groups	209.537	592	.354		
	Total	215.460	595			

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

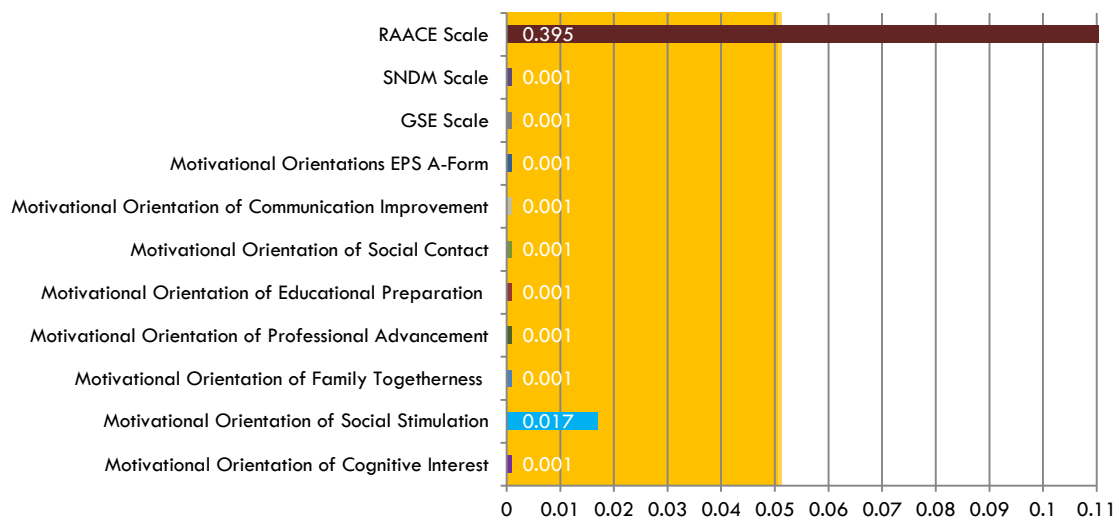


Figure 30. Study findings for research question 4–Plans to enroll in another ABE writing class.

How Many ABE Mathematics Classes Were Taken Previously

111. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). There was a positive correlation between the two variables, $r = .072$, $n = 600$, $p = .076$. Since the p -value ($Sig.$) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and attitude.

112. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). There was a positive correlation between the two variables, $r = .059$, $n = 600$, $p = .152$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and subjective norm.

113. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). There was a positive correlation between the two variables, $r = .130$, $n = 600$, $p = .001$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant correlation between the

number of ABE mathematics classes the respondent had taken previously and general self-efficacy, though weak in strength.

114. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .069$, $n = 600$, $p = .093$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and motivational orientation.

115. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .030$, $n = 589$, $p = .472$.

Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of communication improvement.

116. There is no significant relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .010$, $n = 596$, $p = .800$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of social contact.

117. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .051$, $n = 592$, $p = .214$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of educational preparation.

118. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .064$, $n = 595$, $p = .120$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics

classes the respondent had taken previously and the motivational orientation of professional advancement.

119. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .064$, $n = 590$, $p = .118$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of family togetherness.

120. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of social stimulation (as

measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .082$, $n = 590$, $p = .046$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant correlation between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of social stimulation, though weak in strength.

121. There is no significant relationship between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE mathematics classes the respondent had taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .052$, $n = 596$, $p = .206$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE mathematics classes the respondent has taken previously and the motivational orientation of cognitive interest.

Table 47 and Figure 31 present the results of the Pearson's correlations conducted between the number of ABE mathematics classes taken previously and attitude (as

measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale, subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale, and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. Pearson's correlation was used to explore the association between the variables because all of the variables in these analyses were continuous. If a variable can take on any value between its minimum value and its maximum value, it is called a continuous variable (Cohen et al., 2003). Continuous variables are numeric values that can be ordered sequentially, and have values in between points, that do not naturally fall into discrete ranges. Continuous variables are numeric values that can be ordered sequentially, and have values in between points, that do not naturally fall into discrete ranges. As shown in Table 47, statistical significance was found between the number of ABE mathematics classes taken previously and the GSE Scale ($p = .001$), as well as the motivational orientation of social stimulation ($p = .046$). Both of these correlations were found to be positive though weak in strength, with these coefficients indicating that a greater number of ABE mathematics classes taken previously was associated with significantly higher scores on the GSE Scale, as well as, the motivational orientation of social stimulation.

Table 47

Correlations with ABE Mathematics Classes Taken Previously

<i>Variable</i>	<i>ABE Mathematics Classes Taken Previously</i>
RAACE Scale :r	.072
p-value	.076
<i>N</i>	600
SNDM Scale :r	.059
p-value	.152
<i>N</i>	600
GSE Scale :r	.130**
p-value	.001
<i>N</i>	600
Motivational Orientation EPS A-Form :r	.069
p-value	.093
<i>N</i>	600
Motivational Orientation of Communication Improvement :r	.030
p-value	.472
<i>N</i>	589
Motivational Orientation of Social Contact :r	.010
p-value	.800
<i>N</i>	596
Motivational Orientation of Educational Preparation :r	.051
p-value	.214
<i>N</i>	592
Motivational Orientation of Professional Advancement :r	.064
p-value	.120
<i>N</i>	595
Motivational Orientation of Family Togetherness :r	.064
p-value	.118
<i>N</i>	590
Motivational Orientation of Social Stimulation :r	.082*
p-value	.046
<i>N</i>	590
Motivational Orientation of Cognitive Interest :r	.052
p-value	.206
<i>N</i>	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

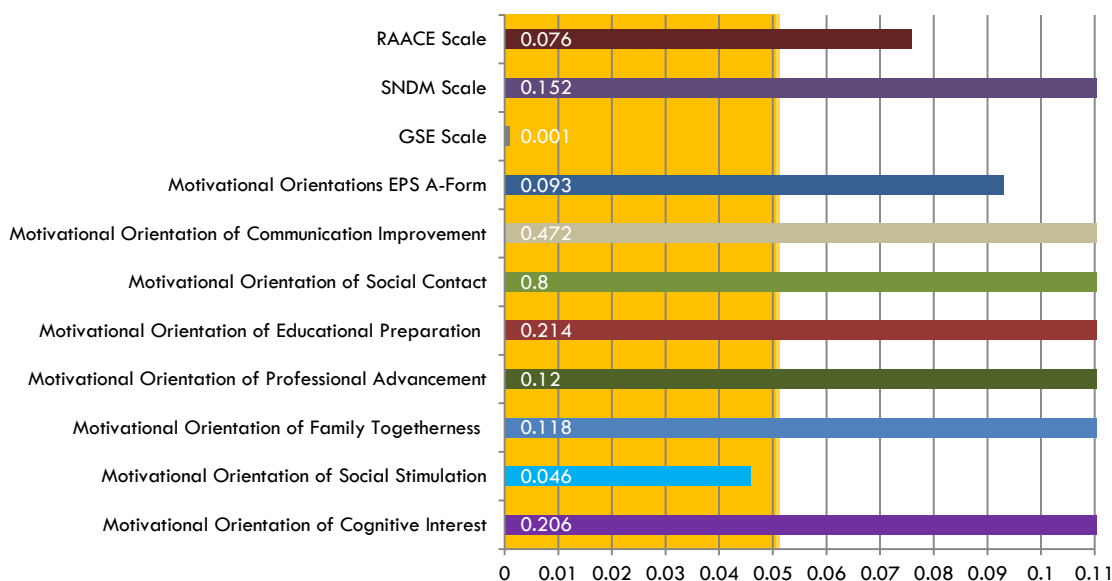


Figure 31. Study findings for research question 4–Number of ABE mathematics classes taken previously.

How Many ABE Reading Classes Were Taken Previously

122. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale). There was a positive correlation between the two variables, $r = .096$, $n = 600$, $p = .018$. Since the p -value ($Sig.$) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent had taken previously and attitude.

123. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). There was a positive correlation between the two variables, $r = .105$, $n = 600$, $p = .010$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent had taken previously and subjective norm.

124. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). There was a positive correlation between the two variables, $r = .182$, $n = 600$, $p = .001$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the

number of ABE reading classes the respondent had taken previously and general self-efficacy.

125. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .170$, $n = 600$, $p = .001$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation.

126. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .168$, $n = 589$, $p = .001$.

Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation of communication improvement.

127. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .107$, $n = 596$, $p = .009$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social contact.

128. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .122$, $n = 592$, $p = .003$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation of educational preparation.

129. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .114$, $n = 595$, $p = .005$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE

reading classes the respondent had taken previously and the motivational orientation of professional advancement.

130. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .124$, $n = 590$, $p = .003$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation of family togetherness.

131. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of social stimulation (as measured by

Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .145$, $n = 590$, $p = .001$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE reading classes the respondent has taken previously and the motivational orientation of social stimulation.

132. There is no significant relationship between the number of ABE reading classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE reading classes the respondent had taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .072$, $n = 596$, $p = .079$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE reading classes the respondent had taken previously and the motivational orientation of cognitive interest.

Table 48 and Figure 32 present the results of the Pearson's correlations conducted between the number of ABE reading classes taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale,

subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale, and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. Pearson's correlation was used to explore the association between the variables because all of the variables in these analyses were continuous. If a variable can take on any value between its minimum value and its maximum value, it is called a continuous variable (Cohen et al., 2003). Continuous variables are numeric values that can be ordered sequentially, and have values in between points, that do not naturally fall into discrete ranges. As shown in Table 48, positive, significant correlations were found between the number of ABE reading classes taken previously and the RAACE Scale ($p = .018$), the SNDM Scale ($p = .010$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), as well as the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .009$), the motivational orientation of education preparation ($p = .003$), the motivational orientation of professional advancement ($p = .005$), the motivational orientation of family togetherness ($p = .003$), and the motivational orientation of social stimulation ($p = .001$). All of these correlations were found to be positive though weak, with these results indicating that a greater

number of ABE reading classes taken previously were associated with significantly greater values for each of these survey items.

Table 48

Correlations with ABE Reading Classes Taken Previously

<i>Variable</i>	<i>ABE Reading Classes Taken Previously</i>
RAACE Scale :<i>r</i>	.096*
<i>p</i>-value	.018
<i>N</i>	600
Subj. Norm Scale :<i>r</i>	.105**
<i>p</i>-value	.010
<i>N</i>	600
GSE Scale :<i>r</i>	.182**
<i>p</i>-value	.001
<i>N</i>	600
Motivational Orientation EPS A-Form :<i>r</i>	.170**
<i>p</i>-value	.001
<i>N</i>	600
Motivational Orientation of Communication Improvement :<i>r</i>	.168**
<i>p</i>-value	.001
<i>N</i>	589
Motivational Orientation of Social Contact :<i>r</i>	.107**
<i>p</i>-value	.009
<i>N</i>	596
Motivational Orientation of Educational Preparation :<i>r</i>	.122**
<i>p</i>-value	.003
<i>N</i>	592
Motivational Orientation of Professional Advancement :<i>r</i>	.114**
<i>p</i>-value	.005
<i>N</i>	595
Motivational Orientation of Family Togetherness :<i>r</i>	.124**
<i>p</i>-value	.003
<i>N</i>	590

(table continues)

<i>Variable</i>	<i>ABE Reading Classes Taken Previously</i>
Motivational Orientation of Social Stimulation :<i>r</i>	.145**
<i>p</i>-value	.001
<i>N</i>	590
Motivational Orientation of Cognitive Interest :<i>r</i>	.072
<i>p</i>-value	.079
<i>N</i>	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

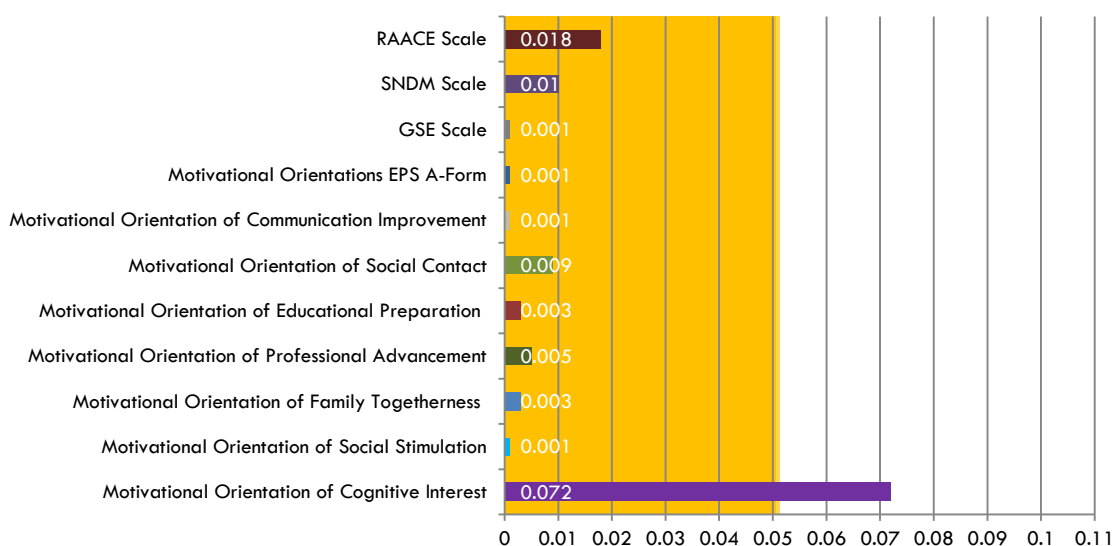


Figure 32. Study findings for research question 4–Number of ABE reading classes taken previously.

How Many ABE Writing Classes Were Taken Previously

133. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and attitude (as measured by the Revised Adult Attitudes Toward

Continuing Education [RAACE] Scale). There was a positive correlation between the two variables, $r = .076$, $n = 599$, $p = .061$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE writing classes the respondent had taken previously and attitude.

134. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale). There was a positive correlation between the two variables, $r = .106$, $n = 599$, $p = .010$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and subjective norm.

135. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken

previously and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale). There was a positive correlation between the two variables, $r = .133$, $n = 599$, $p = .001$. Since the p -value (*Sig.*) was $\leq .05$ the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and general self-efficacy.

136. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .117$, $n = 599$, $p = .004$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant correlation between the number of ABE writing classes the respondent had taken previously and motivational orientation, though weak in strength.

137. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of communication improvement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .124$, $n = 588$, $p = .003$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of communication improvement.

138. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of social contact (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .037$, $n = 595$, $p = .366$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of social contact.

139. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of educational preparation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .086$, $n = 591$, $p = .037$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of educational preparation.

140. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of professional advancement (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .099$, $n = 595$, $p = .016$.

Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis is rejected and the alternative hypothesis is accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of professional advancement.

141. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of family togetherness (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .079$, $n = 590$, $p = .054$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of family togetherness.

142. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of social stimulation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .108$, $n = 590$, $p = .009$. Since the p -value (*Sig.*) was $\leq .05$, the null hypothesis was rejected and the alternative hypothesis was accepted. These results suggest that there was a statistically significant, though weak, correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of social stimulation.

143. There is no significant relationship between the number of ABE writing classes the respondent has taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form).

A Pearson's correlation coefficient was computed to assess the relationship between the number of ABE writing classes the respondent had taken previously and the motivational orientation of cognitive interest (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form). There was a positive correlation between the two variables, $r = .070$, $n = 596$, $p = .087$. Since the p -value (*Sig.*) was $> .05$, the null hypothesis must be accepted and the alternative hypothesis must be rejected. These results suggest that there was not a statistically significant correlation between the number of ABE writing classes the respondent had taken previously and the motivational orientation of cognitive interest.

Table 49 and Figure 33 represent the final set of Pearson's correlations. These correlations focused upon the relationship between the number of ABE writing classes taken previously and the individual determinants attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale, subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale, and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form); as well as each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. Pearson's correlation was used to explore the association between the variables because all of the variables in these analyses were continuous. If a variable can take on any value between its minimum value and its maximum value, it is called a continuous variable (Cohen et al., 2003). Continuous variables are numeric values that can be ordered sequentially, and have values in between points, that do not naturally fall into discrete ranges. As shown in Table 49, positive and weak, though statistically significant, correlations were found between the number of ABE writing classes taken previously and the following measures: the SNDM Scale ($p = .010$), the GSE Scale ($p = .001$), Motivational Orientation EPS A-Form ($p = .004$), as well as the motivational orientation of communication improvement ($p = .003$), the motivational orientation of education

preparation ($p = .037$), the motivational orientation of professional advancement ($p = .016$), and the motivational orientation of social stimulation ($p = .009$). These results indicate that a greater number of ABE writing classes taken previously was associated with significantly higher scores on each of these survey items.

Table 49

Correlations with ABE Writing Classes Taken Previously

<i>Variable</i>	<i>ABE Writing Classes Taken Previously</i>
RAACE Scale :r	.076
p-value	.061
<i>N</i>	599
SNDM Scale :r	.106**
p-value	.010
<i>N</i>	599
GSE Scale :r	.133**
p-value	.001
<i>N</i>	599
Motivational Orientation EPS A-Form :r	.117**
p-value	.004
<i>N</i>	599
Motivational Orientation of Communication Improvement :r	.124**
p-value	.003
<i>N</i>	588
Motivational Orientation of Social Contact :r	.037
p-value	.366
<i>N</i>	595
Motivational Orientation of Educational Preparation :r	.086*
p-value	.037
<i>N</i>	591
Motivational Orientation of Professional Advancement :r	.099*
p-value	.016
<i>N</i>	595
Motivational Orientation of Family Togetherness :r	.079
p-value	.054
<i>N</i>	590

(table continues)

<i>Variable</i>	<i>ABE Writing Classes Taken Previously</i>
Motivational Orientation of Social Stimulation :<i>r</i>	.108**
<i>p</i>-value	.009
<i>N</i>	590
Motivational Orientation of Cognitive Interest :<i>r</i>	.070
<i>p</i>-value	.087
<i>N</i>	596

At the Significance levels = * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

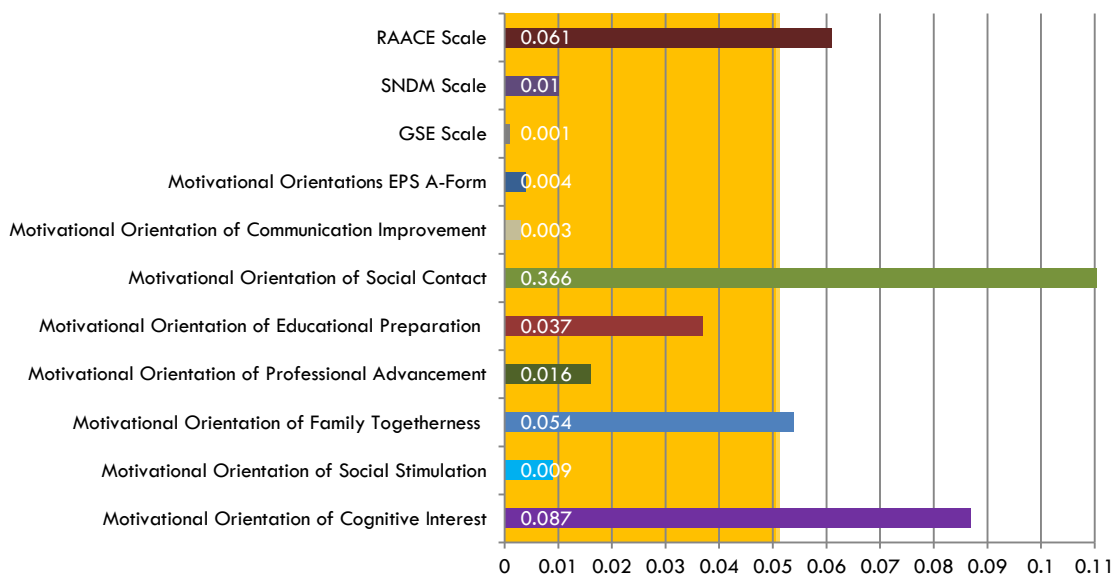


Figure 33. Study findings for research question 4–Number of ABE writing classes taken previously.

Chapter Summary

The preceding chapter has presented findings based on analysis of the data obtained from 600 ABE students comprising the study sample. As this chapter draws to a close, it is fitting that the key finding of the study be reported. This section will capture the motivational orientations of the respondents, as well as the sociodemographic characteristics of the respondents, which include gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which

ABE class the respondent was attending, plans to enroll in a (or another) ABE mathematics class, plans to enroll in a (or another) ABE reading class, plans to enroll in a (or another) ABE writing class, how many ABE mathematics classes were taken previously, how many ABE reading classes were taken previously, and how many ABE writing classes were taken previously. First, a summary of the motivational orientations of the respondents who participated in the study will be pointed out, followed by a summary of the sociodemographic profile of the respondents who participated in this study.

Summary of Respondent Motivational Orientations

Pertaining to respondent motivational orientations, as exhibited in Table 10, the most common reason given for participation in ABE classes consisted of the motivational orientation of professional advancement ($M = 3.52$, $SD = .622$), with the second most common reason given consisting of the motivational orientation of cognitive interest ($M = 3.44$, $SD = .602$). The motivational orientation of social stimulation was provided as an answer least commonly ($M = 2.62$, $SD = .923$), with the motivational orientation of family togetherness provided as the second least frequent answer ($M = 2.83$, $SD = .930$).

Summary of Respondent Sociodemographic Profile

Gender

With respect to respondent gender, as shown in Table 12, over 62% of the sample was found to be female, while close to 38% of this sample was found to consist of male respondents.

Age

With regard to respondent age, as indicated in Table 13, over 28% of respondents were found to be 18 or 19 years of age, while over 16% were found to be 20 or 21 years of age. Over 11% of respondents were found to be 22-24, 25-29, 30-39, and 40-49, respectively, while under 8% of respondents were found to be aged 50 or older.

Marital Status

Concerning marital status, as uncovered in Table 14, the vast majority of respondents, nearly 83%, were found to be currently single, while close to 14% of respondents were married. Close to 4% of individuals were found to be divorced.

Racial Identification

On the subject of racial identification, as unveiled in Table 15, over 59% of respondents in this sample were found to be Black or African-American, with close to 16% of respondents being Hispanic, Latino, or Spanish. Eleven percent of respondents were found to be Caucasian or White, with each of the remaining racial categories composing less than 10% of the sample each: American Indian/Native American (2.2%), Asian/Pacific Islander (6.3%), mixed race (3.0%), and other (2.5%). Slightly over 6% of the respondents were Asian/Pacific Islander. Less than 8% of total respondents were cumulatively found to be Native American, of mixed race, or of another race.

Employment Status

Pertaining to employment status, as presented in Table 16, 56% of respondents were found to be not currently employed, with 27% of respondents being currently employed part-time. Additionally, close to 17% of respondents were found to be currently employed full-time.

Which Campus the Respondent was Attending

In terms of which campus the respondent was attending at the time the survey was taken, as revealed in Table 17, responses were very evenly split between the respondents attending the Urban campus and the respondents attending the Suburban campus. Each of the two campuses comprised approximately 50% of the sample.

Which ABE Class the Respondent was Attending

In respect to which ABE class the respondent was attending at the time the survey was taken, as illustrated in Table 18, respondents were nearly evenly split between those attending an ABE mathematics class, those attending an ABE reading class, and those attending an ABE writing class. Each case composed approximately one-third of the sample.

Plans to Enroll in Another ABE Mathematics Class

In regard to plans to enroll in another ABE mathematics class, as displayed in Table 19, nearly 39% of individuals were planning to enroll in an ABE mathematics class the following semester, with over 38% indicating that they were not sure. Close to 18% of respondents had no current plans to enroll, while slightly above 5% indicated that they had planned to enroll in an ABE mathematics class within the next year.

Plans to Enroll in Another ABE Reading Class

With respect to plans to enroll in another ABE reading class, as shown in Table 20, over 38% of respondents were unsure regarding their plans to enroll, while 33% of this sample planned to enroll in an ABE reading class the following semester.

Additionally, close to 22% of respondents had no current plans to enroll, while close to 7% of individuals were planning to enroll in an ABE reading class within the next year.

Plans to Enroll in Another ABE Writing Class

With regard to plans to enroll in another ABE writing class, as indicated in Table 21, close to 40% of respondents were unsure regarding their plans to enroll, while 33.7% of this sample planned to enroll in an ABE writing class the following semester. Additionally, over 21% of individuals had no current plans to enroll, while close to 7% planned to enroll within the next year.

How Many ABE Mathematics Classes Were Taken Previously

Concerning the number of ABE mathematics classes the respondents had taken previously, as uncovered in Table 22, close to 50% of the sample had not taken an ABE mathematics class previously, while close to 31% of respondents had taken one class in the past. Slightly over 11% of respondents had taken two ABE mathematics classes previously, while less than 10% of respondents in total had taken more than two classes in the past.

How Many ABE Reading Classes Were Taken Previously

On the subject of the number of ABE reading classes the respondents had taken previously, as unveiled in Table 23, again close to 50% of the sample had not taken an ABE reading class previously, while 31.7 % of respondents had taken one ABE reading class in the past. Close to 12% of respondents had taken two ABE classes previously, while less than 9% of respondents in total had taken more than two ABE classes in the past.

How Many ABE Writing Classes Were Taken Previously

Pertaining to the number of ABE writing classes the respondent had taken previously, as presented in Table 24, slightly over 50% of the sample had not taken any

ABE writing classes previously, with nearly 30% having taken one in the past. Close to 10% of respondents had taken two ABE writing classes previously, while under 9% of respondents in total had taken more than two ABE writing classes previously.

Summary of Findings from Testing the Hypothesis

In an effort to shed light on why adult students enroll in ABE classes, the next section of this chapter summarizes the findings of the study. From the findings of this study, the following can be concluded.

Attitude

In terms of attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), as illustrated in Table 25, significant, positive correlations were found between attitude and six of the seven motivational orientations: the motivational orientation of communication improvement (p-value = .010), the motivational orientation of social contact (p-value = .001), the motivational orientation of educational preparation (p-value = .024), the motivational orientation of professional advancement (p-value = .043), the motivational orientation of family togetherness (p-value = .001), and the motivational orientation of social stimulation (p-value = .001). As shown, significant and positive correlations were generally found between these variables, with correlations ranging in strength from very weak/negligible to strong.

Subjective Norm

With respect to subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), as revealed in Table 26, significant and positive correlations were found between subjective norm and each of the seven motivational orientations: the motivational orientation of communication improvement (p-value = .001), the

motivational orientation of social contact (p-value = .001), the motivational orientation of educational preparation (p-value = .001), the motivational orientation of professional advancement (p-value = .001), the motivational orientation of family togetherness (p-value = .001), the motivational orientation of social stimulation (p-value = .001), and the motivational orientation of cognitive interest (p-value = .001). As shown in Table 26, significant and positive correlations were generally found between these variables, with correlations ranging in strength from moderate to strong in strength.

General Self-Efficacy

With regard to general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), as displayed in Table 27, significant, positive correlations were found between general self-efficacy and each of the seven motivational orientations: the motivational orientation of communication improvement (p-value = .001), the motivational orientation of social contact (p-value = .001), the motivational orientation of educational preparation (p-value = .026), the motivational orientation of professional advancement (p-value = .019), the motivational orientation of family togetherness (p-value = .001), the motivational orientation of social stimulation (p-value = .001), and the motivational orientation of cognitive interest (p-value = .002). As shown in Table 27, significant and positive correlations were generally found between these variables, with correlations ranging in strength from weak to moderate.

Gender

With respect to gender, as shown in Table 29, statistical significance was found with regard to gender and the Motivational Orientation EPS A-Form (p = .038), the motivational orientation of communication improvement (p = .022), the motivational

orientation of professional advancement ($p = .045$), and the motivational orientation of social stimulation ($p = .033$). In all four cases, male respondents were found to have significantly higher scores on these measures as compared with female respondents.

Age

With regard to age, as indicated in Table 30, significant correlations were only found between age and the motivational orientation of professional advancement ($p = .010$), as well as the motivational orientation of family togetherness ($p = .030$). These two correlations were found to be positive and statistically significant, though weak.

Marital Status

Concerning marital status, as uncovered in Table 32, statistical significant correlations were found between marital status and the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .001$), and the motivational orientation of cognitive interest ($p = .048$). These results indicate that mean scores on these three measures significantly vary on the basis of marital status.

Racial Identification

On the subject of racial identification, as unveiled in Table 34, statistically significant correlations were found between racial identification and the RAACE Scale ($p = .001$), the GSE Scale ($p = .004$), the Motivational Orientation EPS A-Form ($p = .011$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of education preparation ($p = .003$), the motivational orientation of professional advancement ($p = .003$), the motivational orientation of social stimulation ($p = .047$), and the motivational orientation of cognitive interest ($p = .001$). These results

indicate significant differences in mean scores on these measures on the basis of racial identification.

Employment Status

Pertaining to employment status, as presented in Table 36, statistical significance was found with regard to employment status and the motivational orientation of communication improvement ($p = .009$), the motivational orientation of professional advancement ($p = .043$), and the motivational orientation of cognitive interest ($p = .011$). These results indicate that these three measures differed significantly on the basis of employment status.

Which Campus the Respondent was Attending

In terms of which campus the respondent was attending, as illustrated in Table 38, no significant results were found in regard to which campus location the respondent was attending and the RAACE Scale ($p\text{-value} = .208$), the SNDM Scale ($p\text{-value} = .081$), the GSE Scale ($p\text{-value} = .638$), the Motivation Orientation EPS A-Form ($p\text{-value} = .648$), or any of the seven motivational orientations: the motivational orientation of communication improvement ($p\text{-value} = .523$), the motivational orientation of social contact ($p\text{-value} = .649$), the motivational orientation of educational preparation ($p\text{-value} = .466$), the motivational orientation of professional advancement ($p\text{-value} = .964$), the motivational orientation of family togetherness ($p\text{-value} = .124$), the motivational orientation of social stimulation ($p\text{-value} = .811$), and the motivational orientation of cognitive interest ($p\text{-value} = .970$). These analyses indicated no significant difference in these measures on the basis of which campus the respondent was attending at the time the survey was taken.

Which ABE Class the Respondent was Attending

In respect to which ABE class the respondent was attending at the time the survey was take, as revealed in Table 40, statistical significance was found with regard to which ABE class the respondent was attending at the time the survey was taken and the SNDM Scale ($p = .046$), the Motivational Orientation EPS A-Form ($p = .001$), the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .002$), the motivational orientation of family togetherness ($p = .002$), and the motivational orientation of social stimulation ($p = .029$). These results indicate that the means of these measures varied significantly on the basis of which ABE class the respondent was attending at the time the survey was taken.

Plans to Enroll in Another ABE Mathematics Class

In regard to plans to enroll in another ABE mathematics class, as displayed in Table 42, statistical significance was found with regard to plans to enroll in another ABE mathematics class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .008$), the motivational orientation of social contact ($p = .035$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .037$), and the motivational orientation of cognitive interest ($p = .046$). These results indicate that mean measures on all of these items varied significantly on the basis of respondents' plans to enroll in another ABE mathematics class.

Plans to Enroll in Another ABE Reading Class

With respect to plans to enroll in another ABE reading class, as shown in Table 44, statistical significance was found with regard to plans to enroll in another ABE reading class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .001$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .019$), and the motivational orientation of cognitive interest ($p = .004$). These results indicate that with regard to all remaining items, significant mean differences in these items existed on the basis of whether and when respondents plan to enroll in another ABE reading class.

Plans to Enroll in Another ABE Writing Class

With regard to plans to enroll in another ABE writing class, as indicated in Table 46, statistical significance was found in all cases with the exception of the RAACE Scale. Statistical significance was found with regard to plans to enroll in another ABE writing class and the SNDM Scale ($p = .001$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), and the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .001$), the motivational orientation of education preparation ($p = .001$), the motivational orientation of professional advancement ($p = .001$), the motivational orientation of family togetherness ($p = .001$), the motivational orientation of social stimulation ($p = .017$), and the motivational orientation of cognitive interest ($p = .001$). These results indicate that

with regard to all other measures, significant mean differences in these measures existed on the basis of whether and when respondents plan to enroll in another ABE writing class.

How Many ABE Mathematics Classes Were Taken Previously

Concerning the number of ABE mathematics classes taken previously, as uncovered in Table 47, statistical significance was found between the number of ABE mathematics classes taken previously and the GSE Scale ($p = .001$), as well as the motivational orientation of social stimulation ($p = .046$). Both of these correlations were found to be positive, though weak, with these coefficients indicating that a greater number of ABE mathematics classes taken previously was associated with significantly higher scores on the GSE Scale, as well as the motivational orientation of social stimulation.

How Many ABE Reading Classes Were Taken Previously

On the subject of the number of ABE reading classes taken previous, as unveiled in Table 48, positive, significant correlations were found between the number of ABE reading classes taken previously and the RAACE Scale ($p = .018$), the SNDM Scale ($p = .010$), the GSE Scale ($p = .001$), the Motivational Orientation EPS A-Form ($p = .001$), as well as the motivational orientation of communication improvement ($p = .001$), the motivational orientation of social contact ($p = .009$), the motivational orientation of education preparation ($p = .003$), the motivational orientation of professional advancement ($p = .005$), the motivational orientation of family togetherness ($p = .003$), and the motivational orientation of social stimulation ($p = .001$). All of these correlations were found to be positive, though weak, with these results indicating that a greater

number of ABE reading classes taken previously were associated with significantly greater values for each of these survey items.

How Many ABE Writing Classes Were Taken Previously

Pertaining to the number of ABE writing classes taken previously, as presented in Table 49, positive and weak, though statistically significant, correlations were found between the number of ABE writing classes taken previously and the following measures: the SNDM Scale ($p = .010$), the GSE Scale ($p = .001$), Motivational Orientation EPS A-Form ($p = .004$), as well as the motivational orientation of communication improvement ($p = .003$), the motivational orientation of education preparation ($p = .037$), the motivational orientation of professional advancement ($p = .016$), and the motivational orientation of social stimulation ($p = .009$). These results indicate that a greater number of ABE writing classes taken previously was associated with significantly higher scores on each of these survey items.

On a final note, the integrated model of Ajzen's (1991) theory of planned behavior (TPB) played a vital role in this study. It not only provided a sound and guiding framework to identify the factors that motivate adults to participate in ABE classes but also enabled the researcher to examine the relative strength and association of the three determinants (attitude, subjective norm, and general self-efficacy) to the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest). It can be claimed that an examination of

these variables can contribute to the efforts of those involved in the development and implementation of adult education programs. The findings to emerge from the data will be discussed in more detail in Chapter Five, the next and final chapter. This discussion will also include the theoretical and practical implications of these findings. In addition, the next chapter will also bring together the researcher's recommendations for policy, practice, and future research, and concluding remarks that follow directly from the findings of the study.

CHAPTER FIVE: DISCUSSION, IMPLICATIONS, CONCLUSIONS

“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

— Alvin Toffler, American sociologist, writer, and futurist

Introduction

A common thread in the literature concerning adult education is the premise that adult educators should respond to the needs, interests, and real life problems of adult students. Boshier (1991) pointed out that the understanding that adults do what they are reinforced or rewarded to do seems to be intimately connected to our understanding of what motivates adults. In the previous chapters of this study, research around the theme of motivation orientations of adult students to participate in adult education was examined, which led to the concentration of motivational orientations as a research paradigm integrated with the Theory of Planned Behavior (TPB) (Ajzen, 1991). Thus, this study was designed to investigate the factors that influence adult students to participate in ABE classes by examining the determinants of the TPB (attitude, subjective norm, and perceived self-efficacy) within the realm of motivational orientations.

In Chapter One, the research was introduced through descriptions of the background, purpose, approach, significance, delimitations and limitations, and vocabulary of the study. This introductory chapter provided an overview of adult literacy in the United States and traced the evolution of these different understandings of being (and becoming) literate, also showing how variants of these ideas have been integrated into policy discourse. Several important conceptual distinctions emerged, which formed the basis for subsequent analyses in that chapter.

Chapter Two constructed the theoretical framework of the study through a review of literature related to the research questions. The work of many researchers and theorists informed this study in conjunction with pertinent academic literature. The literature review for this study revealed a relevant collection of studies and conceptual analyses that highlighted the complexity of the variables being studied—attitude, subjective norm, general self-efficacy, and motivational orientation of ABE students. Also revealed is the utility of examining the relationship between the variables to answer the questions of interest. This research is among the first to use the variables of the TPB to examine the motivational orientation of students enrolled in ABE classes at community college.

The purpose of this study was to understand the factors that motivate adults to participate in an ABE program class offered by a community college in the southeastern part of Wisconsin. To place this study on a sound footing in understanding the motivational orientations behind a student's choice to enroll in ABE classes, the study applied the TPB (Ajzen, 1991) as a guiding framework to examine the relative strength and association of the three determinants (attitude, subjective norm, and general self-efficacy) and motivational orientations of ABE students. This research is among the first in which the determinants of the TPB were used to examine the motivational orientation of students enrolled in ABE classes at community college. In addition, a review of related research suggested that understanding the relationship, if any, between attitudes, subjective norm, and general self-efficacy, and motivational orientations would be useful to serve the adult ABE student population well. Accordingly, the relationships of those variables were explored in this dissertation.

Other variables, known as sociodemographic variables, such as gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plans to enroll in another ABE mathematics class, plans to enroll in another ABE reading classes, plans to enroll in another ABE writing class, the number of ABE mathematics classes that were taken previously, the number of ABE reading classes that were taken previously, and the number of ABE writing classes that were taken previously were also selected as essential to consider. This information was used by the researcher to further address a gap in the literature as well as to add to the knowledge base regarding adult ABE students.

Chapter Three described the research design employed to conduct the study with particular attention to the posed research questions and hypotheses as well as the examined research setting, target population, and research sample. The research methodology used in the study was shared along with the survey instrument and each previously validated survey scale that was implemented. In addition, the researcher discussed the data collection procedures that were engaged and the methods of data analyses that were employed.

Chapter Four presented the study results in the form of data generated and analyzed through application of the research design. The findings did not support all of the hypotheses, but they did add to the research on participation and raised questions for further exploration. In this chapter, the researcher will present a review of the study, purpose of the study, profile of the sample, testing of the hypotheses, and discussion of research findings related to the research purpose. The researcher will also present in this chapter the implications of the study for adult education and leadership; learning and

service; recommendations for policy, practice, and future research; and concluding remarks.

Review of the Study

As the number of adult students enrolling in ABE education programs increases, ABE program administrators and teachers will be challenged to understand and respond to the motivations and reasons for their participation in ABE classes. Further research on this specific population of adult students is needed to identify their distinctive characteristics, needs, and diverse motivations. The TPB was chosen as the theoretical framework for this study because it has been shown to aid in the understanding of how people behave (Ajzen, 1991). The TPB was developed in the late 1980s as an extension of Ajzen's theory of reasoned action (Fishbein & Ajzen, 1975). Intention to perform a particular behavior is the central factor of the theory (Ajzen, 1991). The three independent determinants of intentions developed by Ajzen (1991) are attitude toward the behavior, subjective norms, and perceived behavioral control. For the purpose of this study, the TPB postulated three conceptually independent determinants of intention (Ajzen, 1991).

First, the attitude of students toward ABE classes explains the degree to which they have a positive or negative valuation of these classes. Second, subjective norm refers to the perceived social pressure experienced by students to participate or not participate in ABE classes. Third, the antecedent of intention is the degree of general self-efficacy (perceived behavioral control), or the degree of ease or difficulty in ABE class participation experienced by students. In addition, the degree of general self-efficacy (perceived behavioral control) is assumed to reflect past experiences as well as

anticipated barriers and obstacles to ABE classes. Therefore, the general self-efficacy concept from Bandura's (1997) social cognitive theory has been integrated with Ajzen's (1991) TPB within one model to explain the motivational orientations of ABE students.

Motivation has been defined as "the forces that account for the arousal, selection, direction, and continuation of behavior" (Biehler & Snowman, 1997, p. 399). Related to the theories on how adults are motivated to learn is the research that has been conducted to examine why adults are motivated to participate in education. Houle (1961) utilized in-depth interviews to explore the motives of 22 adults enrolled in a continuing education course. Participants in the study reported diverse reasons for pursuing education, and from these findings, Houle identified three motivational orientations of adult learners: (a) the goal oriented, (b) the activity oriented, and (c) the learning oriented (p. 66).

In 1971, Boshier attempted to elaborate on and test Houle's (1961) typology of motivational orientations to "facilitate the growth of theory and models to explain participation, throw light on the conceptual desert that underpins adult education dropout research, and enhance efforts to increase the quantity and quality of learning experiences for adults" (p. 3). This study led to the creation of the Education Participation Scale (EPS), F-form, for studying motivational orientations associated with adult participation in education. In 1991, Boshier created a new version of the EPS F-form and named it the EPS A-Form and suggested that the former EPS F-Form be retired. The final version of the EPS A-Form contains seven individual motivational orientations, each consisting of six items, for a total of 42 items, which include (a) the motivational orientation of communication improvement, (b) the motivational orientation of social contact, (c) the motivational orientation of educational preparation, (d) the motivational orientation of

professional advancement, (e) the motivational orientation of family togetherness, (f) the motivational orientation of social stimulation, and (g) the motivational orientation of cognitive interest. In the results of this study, the reliability of the EPS A-Form and indicated usefulness of the EPS A-Form were validated for identifying the motivational orientations of adult student participation in ABE classes.

Critics of Houle's (1961) research proposed that it was limited by the small sample and his findings of only three orientations; however, his theoretical foundation has been utilized as the basis for further research on adult motivation (as cited in Boshier, 1991). The motivations that adult students act upon have their origin in meeting one or a combination of the seven individual motivational orientations. In this study, it is confirmed that an adult student's motivational orientation can be understood by looking at the expressed or satisfied motivational orientations of a student through the integrated model of the TPB. The findings of this study provided evidence that the motivational orientations of ABE student existed and differed in scope based on the individual.

Although the validity of the TPB has been well established in the literature (Armitage & Conner, 2001), there has been no application of this theory in studying motivational orientations of ABE students. This paucity of related literature limits the ability to offer a comparative summary of previous research on the application of the TPB. Nevertheless, according to Rahim et al. (2005), there are two significant assumptions of the TPB: "Human beings are rational and make systematic use of information available to them; and people consider the implications of their actions before they decide to engage or not engage in certain behaviors" (p. 211). Subsequently,

the researcher focused on the distinctive characteristics and diverse motivational orientations of ABE adult students.

Purpose of the Study

The purpose of this study was to understand the factors that motivate adults to participate in ABE program classes offered by a community college in the southeastern part of Wisconsin. As shown in Figure 34, general self-efficacy was added in this study as the perceived behavioral control proposed by Ajzen (1991). It was hypothesized that each determinant of TPB will contribute to understanding the student's motivational orientation to participate in ABE classes. Figure 34 represents an integrated model of the TPB and the relationship between the variables being examined in this study.

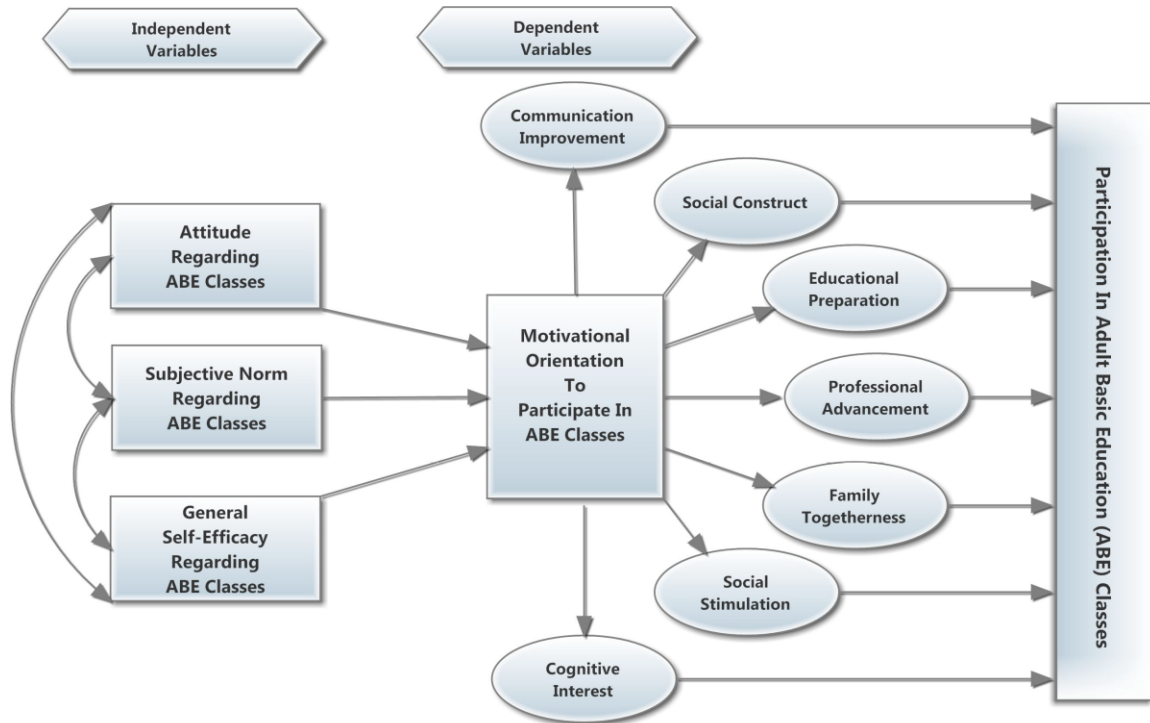


Figure 34. Integrated model of the Theory of Planned Behavior and the relationship between the variables being examined in this study. Adapted from “The Theory of Planned Behavior,” by I. Ajzen, 1991, *Organizational Behavior and Human Decision Processes* 50(2), pp. 179-211.

Research Questions

Research is the orderly investigation of a subject matter for the purpose of adding to the body of knowledge. Four specific research questions were examined relative to the study purpose.

Research Question 1

What is the relationship, if any, between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and motivational orientation (as measured by Boshier’s, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,

- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 2

What is the relationship, if any, between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations:

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 3

What is the relationship, if any, between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Research Question 4

What is the relationship, if any, between the independent variables of gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plans to enroll in another ABE mathematics class, plans to enroll in another ABE reading classes, plans to enroll in another ABE writing class, the number of ABE mathematics classes taken previously, the number of ABE reading classes taken previously, and the number of ABE writing classes taken previously, and the individual antecedents attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale, subjective norm (as

measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes?

Reliability Analyses

Reliability analyses were conducted to ensure that the scale measures had an acceptable level of internal consistency reliability. The scale measures included in this study consisted of the Revisited Adult Attitudes Toward Continuing Education (RAACE) Scale, Subjective Norm Direct Measure (SNDM) Scale, General Self-Efficacy (GSE) Scale, and motivational orientation as measured by Boshier's (1991) Motivational Orientation EPS A-Form, and each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness,

motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. These analyses were conducted utilizing Cronbach's alpha. A common standard for acceptable internal consistency reliability consists of Cronbach's alpha scores of .70 or above (Cohen et al., 2003). Marginal reliability was found with regard to the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale (Cronbach's Alpha = .545). Acceptable reliability was found with regard to the Subjective Norm Direct Measure [SNDM] Scale (Cronbach's Alpha = .776). Marginal reliability was found with regard to the General Self-Efficacy [GSE] Scale (Cronbach's Alpha = .649). Acceptable reliability was found with regard to Boshier's (1991) Motivational Orientation EPS A-Form (Cronbach's Alpha = .952).

Study Findings Regarding Respondent Motivational Orientations

Pertaining to respondent motivational orientations, the most common reason given for participation in ABE classes consisted of the motivational orientation of professional advancement ($M = 3.52$, $SD = .622$), with the second most common reason given consisting of the motivational orientation of cognitive interest ($M = 3.44$, $SD = .602$). The motivational orientation of social stimulation was provided as an answer least commonly ($M = 2.62$, $SD = .923$), with the motivational orientation of family togetherness provided as the second least frequent answer ($M = 2.83$, $SD = .930$).

Study Findings Regarding Respondent Sociodemographic Profile

The study sample consisted of 600 respondents. The respondents, enrolled in ABE classes (i.e., mathematics, reading, and writing), volunteered to participate in the study. In this section, the following characteristics of the respondents are considered:

gender, age, marital status, racial identification, employment status, which campus the respondent was attending, and which ABE class the respondent was attending. These data are included for descriptive purposes. The following respondent characteristics are also considered for descriptive purposes: Plans to enroll in an (or another) ABE mathematics class, plans to enroll in an (or another) ABE reading class, plans to enroll in an (or another) ABE writing class, the number of ABE mathematics classes previously taken, the number of ABE reading classes previously taken, and the number of ABE writing classes previously taken. These characteristics have been included in the present study, in part, because they help to provide a demographic breakdown of the study sample.

Gender

With respect to respondent gender, over 62% of the sample consisted of female respondents, while close to 38% of this sample consisted of male respondents.

Age

With regard to respondent age, over 28% of respondents were 18 or 19, while over 16% were 20 or 21. Over 11% of respondents were 22-24, 25-29, 30-39, and 40-49, respectively, while under 8% of respondents were 50 or older.

Marital Status

Concerning respondent marital status, the vast majority of respondents, nearly 83%, were currently single, while close to 14% of respondents were married. Close to 4% of individuals were divorced.

Racial Identification

On the subject of respondent racial identification, over 59% of respondents in this sample were African American, and close to 16% of respondents were Hispanic. Eleven percent of respondents were European American. The rest consisted of Native Americans (2.2%), Asian/Pacific Islanders (6.3%), mixed races (3.0%), and others (2.5%). Less than 8% of respondents in total were found to be Native American, of mixed race, or of another race.

Employment Status

Pertaining to employment status, over 50% (56%) of respondents were not employed, and 27% of respondents were employed part-time. Additionally, close to 17% of respondents were employed full-time.

Which ABE Campus the Respondent was Attending

In terms of which campus the respondent was attending at the time the survey was taken, responses were very evenly split between the respondents attending the urban campus and the respondents attending the suburban campus. Each of the two campuses comprised approximately 50% of the sample.

Which ABE Class the Respondent was Attending

In respect to which ABE class the respondent was attending at the time the survey was taken, respondents were nearly evenly split between those attending an ABE mathematics class, those attending an ABE reading class, and those attending an ABE writing class. Each case composed approximately one-third of the sample.

Plans to Enroll in Another ABE Mathematics Class

In regard to plans to enroll in another ABE mathematics class, nearly 39% of individuals were planning to enroll in an ABE mathematics class the following semester, with over 38% indicating that they were not sure. Close to 18% of respondents had no current plans to enroll, while slightly above 5% indicated that they had planned to enroll in an ABE mathematics class within the next year.

Plans to Enroll in Another ABE Reading Class

With respect to plans to enroll in another ABE reading class, over 38% of respondents were unsure regarding their plans to enroll, while 33% of this sample planned to enroll in an ABE reading class the following semester. Additionally, close to 22% of respondents had no current plans to enroll, while close to 7% of individuals were planning to enroll in an ABE reading class within the next year.

Plans to Enroll in Another ABE Writing Class

With regard to plans to enroll in Another ABE writing classes, close to 40% of respondents were unsure regarding their plans to enroll, while 33.7% of this sample planned to enroll in an ABE writing class the following semester. Additionally, over 21% of individuals had no current plans to enroll, while close to 7% planned to enroll within the next year.

How Many ABE Mathematics Classes Were Taken Previously

Concerning the number of ABE mathematics classes taken previously, close to 50% of the sample had not taken an ABE mathematics class previously, while close to 31% of respondents had taken one class in the past. Slightly over 11% of respondents

had taken two ABE mathematics classes previously, while less than 10% of respondents in total had taken more than two classes in the past.

How Many ABE Reading Classes Were Taken Previously

On the subject of the number of ABE reading classes taken previously, close to 50% of the sample had not taken an ABE reading class previously, while 31.7% of respondents had taken one ABE reading class in the past. Close to 12% of respondents had taken two ABE classes previously, while less than 9% of respondents in total had taken more than two ABE classes in the past.

How Many ABE Writing Classes Were Taken Previously

Finally, pertaining to the number of ABE writing classes taken previously, slightly over 50% of the sample had not taken any ABE writing classes previously, and nearly 30% had taken one in the past. Close to 10% of respondents had taken two ABE writing classes previously, while under 9% of respondents in total had taken more than two ABE writing classes previously.

In summary, awareness of the characteristics of ABE students is an important first step in meeting their needs, which is the purpose of providing a profile of the research sample. In the next section, a series of descriptive statistics will be discussed to better describe all continuous measures that were included in this study.

Testing the Hypotheses

In Chapter Three, a series of hypotheses were designed to explore the relationship between attitude, subjective norm, general self-efficacy, motivational orientation, and each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational

orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. The following data analyses were conducted using the Statistical Package for Social Sciences (SPSS).

1. Frequencies and cross-tabulations were used to gain an understanding of the demographics of the respondents.
2. Correlational analyses using the Pearson product moment correlation were used to determine the strength and direction of relationships between variables.
3. Multiple regression analysis was used to examine the amount of variation in the dependent variable that was explained by the independent variables.
4. ANOVA was used to compare the differences in means of the independent variables on the dependent variable.
5. All hypotheses were tested at the alpha level of .05.

To present the data in an effective manner, each research question is discussed as presented in Chapter Three. Taking each hypothesis in turn, the null hypothesis is discussed and the findings related to its testing are presented.

Research Question 1 Null Hypothesis (H_0)

A series of correlations was conducted to test the following null hypothesis (H_0) based on Research Question 1:

There is no statistically significant relationship between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and

motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Study Findings for Research Question 1

In terms of attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), positive correlations were found between attitude and six of the seven motivational orientations:

- The motivational orientation of communication improvement (p -value = .010). The p -value of .010 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of communication improvement;
- The motivational orientation of social contact (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the

- null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of social contact;
- The motivational orientation of educational preparation (p -value = .024). The p -value of .024 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of educational preparation;
 - The motivational orientation of professional advancement (p -value = .043). The p -value of .043 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion is made that there was a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of professional advancement;
 - The motivational orientation of family togetherness (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of family togetherness; and
 - The motivational orientation of social stimulation (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A

conclusion was made that there is a relationship between attitude (as measured by the RAACE Scale) and the motivational orientation of social stimulation.

Research Question 2 Null Hypothesis (H₀)

A series of correlations was conducted to test the following null hypotheses (H₀) based on Research Question 2:

There is no statistically significant relationship between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Study Findings for Research Question 2

In respect to subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), significant and positive correlations were found between subjective norm and each of the seven motivational orientations:

- The motivational orientation of communication improvement (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of communication improvement;
- The motivational orientation of social contact (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of social contact;
- The motivational orientation of educational preparation (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion is made that there was a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of educational preparation;
- The motivational orientation of professional advancement (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of professional advancement;

- The motivational orientation of family togetherness (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of family togetherness;
- The motivational orientation of social stimulation (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of social stimulation; and
- The motivational orientation of cognitive interest (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between subjective norm (as measured by the SNDM Scale) and the motivational orientation of cognitive interest.

Research Question 3 Null Hypothesis (H₀)

A series of correlations was conducted to test the following null hypotheses (H₀) based on Research Question 3:

There is no statistically significant relationship between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and motivational orientation (as

measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Study Findings for Research Question 3

In regard to general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), significant, positive correlations were found between general self-efficacy and each of the seven motivational orientations:

- The motivational orientation of communication improvement (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of communication improvement
- The motivational orientation of social contact (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the

- null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of social contact;
- The motivational orientation of educational preparation (p -value = .026). The p -value of .026 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of communication improvement ;
 - The motivational orientation of professional advancement (p -value = .019). The p -value of .019 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of professional advancement;
 - The motivational orientation of family togetherness (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of family togetherness;
 - The motivational orientation of social stimulation (p -value = .001). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A

- conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of social stimulation; and
- The motivational orientation of cognitive interest (p -value = .002). The p -value of .002 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between general self-efficacy (as measured by the GSE Scale) and the motivational orientation of cognitive interest.

Research Question 4 Null Hypothesis (H₀)

The next set of analyses was conducted to test the following null hypotheses (H₀) based on Research Question 4:

There is no statistically significant relationship between the independent factors of gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plans to enroll in another ABE mathematics class, plans to enroll in another ABE reading class, plans to enroll in another ABE writing class, the number of ABE mathematics classes taken previously, the number of ABE reading classes taken previously, and the number of ABE writing classes taken previously; and the individual determinants, attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale), subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale), general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale), motivational orientation (as measured by Boshier's, 1991, Motivational Orientation EPS A-Form), as well as each of the seven individual motivational orientations,

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest,

as measured by Boshier's (1991) Motivational Orientation EPS A-Form, of adults enrolled in ABE classes.

Study Findings for Research Question 4

Gender

With respect to gender, statistical significance was found with regard to gender and

- The Motivational Orientation EPS A-Form ($p = .038$). The p -value of .038 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between gender and the motivational orientation EPS A-Form; as well as
- The motivational orientation of communication improvement ($p = .022$). The p -value of .022 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between gender and the motivational orientation of communication improvement;

- The motivational orientation of professional advancement ($p = .045$). The p -value of .045 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between gender and the motivational orientation of professional advancement; and
- The motivational orientation of social stimulation ($p = .033$). The p -value of .033 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between gender and the motivational orientation of social stimulation.

Age

With regard to age, significant correlations were only found between age and

- The motivational orientation of professional advancement ($p = .010$). The p -value of .010 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between age and the motivational orientation of professional advancement, as well as
- The motivational orientation of family togetherness ($p = .030$). The p -value of .030 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between age and the motivational orientation of family togetherness.

Marital Status

Concerning marital status, statistical significant correlations were found between marital status and

- The motivational orientation of family togetherness ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between marital status and the motivational orientation of family togetherness;
- The motivational orientation of social stimulation ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between marital status and the motivational orientation of social stimulation; and
- The motivational orientation of cognitive interest ($p = .048$). The p -value of .048 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between marital status and the motivational orientation of communication improvement.

Racial Identification

On the subject of racial identification, statistical significant correlations were found between racial identification and

- Attitude, as measured by the RAACE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null

- hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and attitude (as measured by the RAACE Scale);
- General Self-Efficacy, as measured by the GSE Scale, $p = .004$. The p -value of .004 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and general self-efficacy (as measured by the GSE Scale);
 - The Motivational Orientation EPS A-Form ($p = .011$). The p -value of .011 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the Motivational Orientation EPS A-Form; as well as
 - The motivational orientation of communication improvement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the motivational orientation of communication improvement;
 - The motivational orientation of educational preparation ($p = .003$). The p -value of .003 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the motivational orientation of educational preparation;

- The motivational orientation of professional advancement ($p = .003$). The p -value of .003 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the motivational orientation of professional advancement;
- The motivational orientation of social stimulation ($p = .047$). The p -value of .047 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the motivational orientation of social stimulation;
- The motivational orientation of cognitive interest ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between racial identification and the motivational orientation of cognitive interest.

Employment Status

Pertaining to employment status, statistical significance was found with regard to employment status and

- The motivational orientation of communication improvement ($p = .009$). The p -value of .009 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between employment status and the motivational orientation of communication improvement;

- The motivational orientation of professional advancement ($p = .043$). The p -value of .043 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis is accepted. A conclusion is made that there is a relationship between employment status and the motivational orientation of professional advancement; and
- The motivational orientation of cognitive interest ($p = .011$). The p -value of .011 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between employment status and the motivational orientation of cognitive interest.

Which Campus the Respondent Was Attending

In terms of which campus the respondent was attending, no significant results were found in regards to which campus location the respondent was attending and

- Attitude, as measured by the RAACE Scale, p -value = .208. The p -value of .208 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and attitude (as measured by the RAACE Scale);
- Subjective norm, as measured by the SNDM Scale, p -value = .081. The p -value of .081 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and subjective norm (as measured by the SNDM Scale);

- General self-efficacy, as measured by the GSE Scale, p -value = .638. The p -value of .638 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and general self-efficacy (as measured by the GSE Scale);
- The Motivation Orientation EPS A-Form (p -value = .648). The p -value of .648 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the Motivation Orientation EPS A-Form; as well as
- The motivational orientation of communication improvement (p -value = .523). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of communication improvement;
- The motivational orientation of social contact (p -value = .649). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of social contact;
- The motivational orientation of educational preparation (p -value = .466). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision

- rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of educational preparation;
- The motivational orientation of professional advancement (p -value = .964). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of professional advancement;
 - The motivational orientation of family togetherness (p -value = .124). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of family togetherness;
 - The motivational orientation of social stimulation (p -value = .811). The p -value of .523 was greater than the significant level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of social stimulation; and
 - The motivational orientation of cognitive interest (p -value = .970). The p -value of .523 was greater than the significance level of .05; therefore, based on the decision rules, the null hypothesis was accepted and the alternative hypothesis was rejected. A

conclusion was made that there is no relationship between which campus the respondent was attending and the motivational orientation of cognitive interest.

Which ABE Class the Respondent was Attending

In respect to which ABE class the respondent was attending at the time the survey was taken, statistical significance was found with regard to which ABE class the respondent was attending at the time the survey was taken and

- Subjective Norm, as measured by the SNDM Scale, ($p = .046$). The p -value of .046 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE class the respondent was attending and subjective norm (as measured by the SNDM Scale);
- The Motivational Orientation EPS A-Form ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE class the respondent was attending and the Motivational Orientation EPS A-Form; as well as
- The motivational orientation of communication improvement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE

class the respondent was attending and the motivational orientation of communication improvement;

- The motivational orientation of social contact ($p = .002$). The p -value of .002 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE class the respondent was attending and the motivational orientation of social contact;
- The motivational orientation of family togetherness ($p = .002$). The p -value of .002 was less than the significant level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE class the respondent was attending and the motivational orientation of family togetherness; and
- The motivational orientation of social stimulation ($p = .029$). The p -value of .029 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between which ABE class the respondent was attending and the motivational orientation of social stimulation.

Plans to Enroll in Another ABE Mathematics Class

In regard to plans to enroll in another ABE mathematics class, statistical significance was found with regard to plans to enroll in another ABE mathematics class and

- Subjective norm, as measured by the SNDM Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and subjective norm (as measured by the SNDM Scale);
- General self-efficacy, as measured by the GSE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and general self-efficacy (as measured by the GSE Scale);
- The Motivational Orientation EPS A-Form ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the Motivational Orientation EPS A-Form; as well as
- The motivational orientation of communication improvement ($p = .008$). The p -value of .008 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of communication improvement;
- The motivational orientation of social contact ($p = .035$). The p -value of .035 was less than the significance level of .05; therefore, based on the decision rules, the null

- hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of social contact;
- The motivational orientation of educational preparation ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of educational preparation;
 - The motivational orientation of professional advancement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of professional advancement;
 - The motivational orientation of family togetherness ($p = .037$). The p -value of .037 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of family togetherness; and
 - The motivational orientation of cognitive interest ($p = .046$). The p -value of .046 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion

was made that there is a relationship between plans to enroll in another ABE mathematics class and the motivational orientation of cognitive interest.

Plans to Enroll in Another ABE Reading Class

With respect to plans to enroll in another ABE reading class, statistical significance was found with regard to plans to enroll in another ABE reading class and

- Subjective norm, as measured by the SNDM Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and subjective norm (as measured by the SNDM Scale);
- General self-efficacy, as measured by the GSE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and general self-efficacy (as measured by the GSE Scale);
- The Motivational Orientation EPS A-Form ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the Motivational Orientation EPS A-Form; as well as
- The motivational orientation of communication improvement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A

- conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of communication improvement;
- The motivational orientation of social contact ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of social contact;
 - The motivational orientation of educational preparation ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of educational preparation;
 - The motivational orientation of professional advancement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of professional advancement;
 - The motivational orientation of family togetherness ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of family togetherness;

- The motivational orientation of social stimulation ($p = .019$). The p -value of .019 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of social stimulation; and
- The motivational orientation of cognitive interest ($p = .004$). The p -value of .004 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE reading class and the motivational orientation of cognitive interest.

Plans to Enroll in Another ABE Writing Class

With regard to plans to enroll in another ABE writing class, statistical significance was found in all cases with the exception of the RAACE Scale. Statistical significance was found with regard to plans to enroll in another ABE writing class and

- Subjective norm, as measured by the SNDM Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and subjective norm (as measured by the SNDM Scale);
- General self-efficacy, as measured by the GSE Scale. $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A

- conclusion was made that there is a relationship between plans to enroll in another ABE writing class and general self-efficacy (as measured by the GSE Scale);
- The Motivational Orientation EPS A-Form ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the Motivational Orientation EPS A-Form; as well as,
 - The motivational orientation of communication improvement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of communication improvement;
 - The motivational orientation of social contact ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of social contact;
 - The motivational orientation of educational preparation ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of educational preparation;

- The motivational orientation of professional advancement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of professional advancement;
- The motivational orientation of family togetherness ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of family togetherness;
- The motivational orientation of social stimulation ($p = .017$). The p -value of .017 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of social stimulation; and
- The motivational orientation of cognitive interest ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between plans to enroll in another ABE writing class and the motivational orientation of cognitive interest.

How Many ABE Mathematics Classes Taken Previously

Concerning the number of ABE mathematics classes taken previously, statistical significance was found between the number of ABE mathematics classes taken previously and

- General self-efficacy, as measured by the GSE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE mathematics classes taken previously and general self-efficacy (as measured by the GSE Scale); as well as
- The motivational orientation of social stimulation ($p = .046$). The p -value of .046 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE mathematics classes taken previously and the motivational orientation of social stimulation.

How Many ABE Reading Classes Were Taken Previously

On the subject of the number of ABE reading classes taken previously, positive, significant correlations were found between the number of ABE reading classes taken previously and

- Attitude, as measured by the RAACE Scale, $p = .018$. The p -value of .018 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion

- was made that there is a relationship the number of ABE reading classes taken previously and attitude (as measured by the RAACE Scale);
- Subjective norm, as measured by the SNDM Scale, $p = .010$. The p -value of .010 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and subjective norm (as measured by the SNDM Scale);
 - General self-efficacy, as measured by the GSE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and general self-efficacy (as measured by the GSE Scale);
 - The Motivational Orientation EPS A-Form ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the Motivational Orientation EPS A-Form; as well as
 - The motivational orientation of communication improvement ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of communication improvement;

- The motivational orientation of social contact ($p = .009$). The p -value of .009 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of social contact;
- The motivational orientation of educational preparation ($p = .003$). The p -value of .003 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of educational preparation;
- The motivational orientation of professional advancement ($p = .005$). The p -value of .005 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of professional advancement;
- The motivational orientation of family togetherness ($p = .003$). The p -value of .003 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of family togetherness; and
- The motivational orientation of social stimulation ($p = .001$). The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the

null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE reading classes taken previously and the motivational orientation of social stimulation.

How Many ABE Writing Classes Were Taken Previously

Pertaining to the number of ABE writing classes taken previously, positive and weak, though statistically significant, correlations were found between the number of ABE writing classes taken previously and

- Subjective norm, as measured by the SNDM Scale, $p = .010$. The p -value of .010 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and subjective norm (as measured by the SNDM Scale);
- General self-efficacy, as measured by the GSE Scale, $p = .001$. The p -value of .001 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and general self-efficacy (as measured by the GSE Scale);
- The Motivational Orientation EPS A-Form ($p = .004$). The p -value of .004 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and the Motivational Orientation EPS A-Form; as well as

- The motivational orientation of communication improvement ($p = .003$). The p -value of .003 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and the motivational orientation of communication improvement;
- The motivational orientation of educational preparation ($p = .037$). The p -value of .037 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and the motivational orientation of educational preparation;
- The motivational orientation of professional advancement ($p = .016$). The p -value of .016 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and the motivational orientation of professional advancement; and
- The motivational orientation of social stimulation ($p = .009$). The p -value of .009 was less than the significance level of .05; therefore, based on the decision rules, the null hypothesis was rejected and the alternative hypothesis was accepted. A conclusion was made that there is a relationship between the number of ABE writing classes taken previously and the motivational orientation of social stimulation.

Discussion of Research Findings

The theoretical determinants of the TPB (Ajzen, 1991), attitude, subjective norm, and general self-efficacy, can be used to explain a student's behavioral intention. These constructs can be used to better understand a student's motivational orientation to attend ABE classes. In accordance with the tenets of the TPB (Ajzen, 1991), attitude, subjective norm, and perceived self-efficacy are each expected to influence each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form.

From the findings of this study, it can be concluded that a significant positive relationship was found between the attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and the each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form; subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational

orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form; and general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and each of the seven individual motivational orientations (motivational orientation of communication improvement, motivational orientation of social contact, motivational orientation of educational preparation, motivational orientation of professional advancement, motivational orientation of family togetherness, motivational orientation of social stimulation, and motivational orientation of cognitive interest), as measured by Boshier's (1991) Motivational Orientation EPS A-Form. These findings confirmed Boshier's (1991) postulate that motivation alone is not enough to cause an adult to return to education. Rather, a sequence of decisions is made to lead an adult to this outcome. The integrated model shows, and the study confirms, that ABE students' attitudes, subjective norms, and general self-efficacies can influence their motivational orientation.

The integrated model in this study presumes a cognitive element that posits that adult decisions to participate in ABE education are determined by the combined effect of their expectations of the positive and negative factors of participation, and the perceived probability of personal success in the educational activity. The strength of the motivation to participate in adult education is affected by a variety of personal and external factors. In summary, it is presumed that the decision to participate in ABE classes can be understood through an analysis of the integrated model. It can be claimed that an examination of these variables can contribute to the efforts of those involved in the

development and implementation of adult education programs. This study confirmed that demographic variables are not adequate predictors of adult participation in ABE classes. The integrated model was successful for correlating the relationship between attitude, subjective norm, and general self-efficacy and motivational orientations. The study also supported the researcher's presumption that general self-efficacy can be used as a determinant in the TPB to replace perceived behavior control. This finding supports the research carried out by Bandura (1995), who stated that self-efficacy correlates positively with students' goals for course achievement. For self-efficacy, the findings support the integrated model of this study and that of Bandura (1995). Therefore, it can be said that self-efficacy can be utilized within the TPB framework as a logical step toward understanding the motivational orientations of ABE students.

Boshier's (1971) theory stated that adult participants in adult education programs are "goal-oriented" (p. 22), and are motivated either by external or internal influences. It is important to think of ABE class participants in this perspective because of the need of ABE program administrators to design programs to meet the needs and motivational orientations of this population of students. Because the findings of this study show that self-efficacy is correlated with motivational orientations, then most initiatives that will help build a student's self-efficacy would be a key factor in the student's academic achievement and persistence.

Conclusions

From the findings of this study, it can be concluded that

A significant positive relationship was found between attitude (as measured by the Revised Adult Attitudes Toward Continuing Education [RAACE] Scale) and each of the seven individual motivational orientations:

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest.

A significant positive relationship was found between subjective norm (as measured by the Subjective Norm Direct Measure [SNDM] Scale) and each of the seven individual motivational orientations:

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest.

A significant positive relationship was found between general self-efficacy (as measured by the General Self-Efficacy [GSE] Scale) and each of the seven individual motivational orientations:

- motivational orientation of communication improvement,
- motivational orientation of social contact,
- motivational orientation of educational preparation,
- motivational orientation of professional advancement,
- motivational orientation of family togetherness,
- motivational orientation of social stimulation, and
- motivational orientation of cognitive interest.

These findings confirm Boshier's (1991) postulate that motivation alone is not enough to cause an adult to return to education. Rather, a sequence of decisions is made to lead an adult to this outcome. The integrated model shows, and the study confirms, that the attitude, subjective norm, and general self-efficacy of ABE students can influence their motivational orientation. In summary, it is presumed that the decision to participate in ABE classes can be understood through an analysis of the integrated model of the TPB. In addition, it can be claimed that an examination of these variables can contribute to the efforts of those involved in the development and implementation of adult education programs.

Strengths of the Study

A strength of this study is that it has contributed to the theoretical literature of adult basic education students. In this study, the researcher used the TPB as the basis of the investigation, because the efficacy of the TPB to explain behavior has been

demonstrated within numerous contexts (Ajzen, 1991). However, the literature review revealed that it may be possible to improve the predictive validity of the TPB by including the additional determinant of general self-efficacy. Therefore, attitude, subjective norm, and general self-efficacy were included in the integrated model to explain the strength of the determinants regarding motivational orientations of ABE students. Also, in the present study, quantitative research methods were adopted that allowed an in-depth exploration of the motivational orientations of ABE students. Quantitative methods were employed to examine the interplay between the determinants of the TPB and motivational orientations.

Limitations of the Study

As is true in all studies, this study has its own set of limitations. First, the majority of data collection occurred in the Fall 2012 semester when there was exceptionally hot weather. As things go, participation in ABE classes may have decreased because the building in which the ABE classes were held was not air conditioned and was very hot and uncomfortable; thus, some of the students may have selected an answer just to complete the survey as quickly as possible. Second, the ability to generalize the findings to the entire ABE student population is somewhat limited because the study was conducted among a convenience sample recruited at a specific college. However, a large sample size was achieved, and testing was conducted to control for nonresponse error. Therefore, it is recommended that future researchers should investigate whether or not the results of the present study can be generalized to ABE students in other community colleges or regions of the country.

Implications for Adult Education

It is important to emphasize that motivational orientation has been conceptualized as continual. Motivational orientations cannot be expressed as all-or-nothing characteristics. To be responsive to the needs of their adult students, adult education administrators would be wise to develop profiles of the types of students they attract and serve. Therefore, the following implications are stated for consideration by all involved with adult education.

Implication 1

The internal characteristics of Boshier's (1991) Motivational Orientation EPS A-Form are dynamic and therefore subject to change. The internal characteristics should be considered in conjunction with the larger holistic environment of adults, which is also subject to constant change. Therefore, adult students should be diagnostically assessed at different points throughout an ABE program. The assessment should occur, at the very least, at the beginning of a program for decision making relative to course selection and learning activities. For example, if a student scored highest on the motivational orientation of professional advancement and scored lowest on the motivational orientation of communication improvement, it may be that this student would be more interested in learning activities that he or she sees as being directly related to current or evolving career aspirations. The practicality and utility of the courses might be key evaluative considerations for this student.

Implication 2

The data discussed in the first implication can also be used by adult students to develop a better understanding of themselves. Adult students should understand their

needs, goals, and motivational orientations. They should be able to look at themselves objectively and maturely. They should accept themselves and respect themselves for what they are, while striving earnestly to become better. This process of self-evaluation, represented by the determinants of the TPB (Ajzen, 1991), utilizes internal perceptual filters which help adult students interpret the world and the nature of learning. Self-evaluation, according to Boshier (1991), is where the motivation orientation to participate in education begins. Self-evaluation is related to and contingent upon the determinants of attitude, subjective norm, and general self-efficacy as presented in the TPB (Ajzen, 1991). Likewise, motivational orientations are seen as a flowing stream, influenced by the interrelated determinants.

Implication 3

The intention of this researcher was to broaden conception about how to support adult learners in their educational processes. More specifically, by bringing a motivational orientation perspective to the world of ABE, the researcher hopes that this work will be useful to a wide range of ABE professionals. The data discussed can be used by adult education programs to update their data profile of the adult students they serve. This information could be used for improving both recruitment and retention efforts and matching educational practices and expectations more closely to the motivational orientations of their adult students.

Implications for Family Literacy and Early Childhood Literacy

Family literacy is a unique component of the adult education system. Family literacy programs work by bringing parents with low literacy skills together with their children to learn and receive instruction, reaching a cohort of people who might not be

served by other adult education programs. In 1998, the United States Congress passed the Workforce Investment Act which included Title II of the Adult Education and Family Literacy Act (United States Department of Labor, 2001). This was an important milestone, because while family literacy was born from the adult education movement, this was the first time that family literacy was specified in federal law as a program approach to meeting the adult education and literacy needs of the United States.

Family literacy and early childhood literacy aim to address two challenges at the same time: raising the literacy skills of parents and giving those adults the tools they need to support the literacy development of their children. A growing body of evidence shows that early childhood literacy experiences are linked with later school achievement, emotional and social well-being, fewer grade retention, reduced incidences of juvenile delinquency, and higher graduation rates and that these outcomes are all factors associated with later adult literacy and enhanced productivity in adult life (Heckman, 2006; Karoly, Kilburn & Cannon, 2005). According to Heckman (2006), illiteracy will persist, and replicate itself across generations, unless early childhood literacy moves front and center in the public policy debate. In addition, the education and literacy levels of parents, mothers in particular, directly determine their children's survival, growth, and development prospects. As Roskos and Vukelich (2006) aptly stated,

What early literacy policy accomplishes in the next decades depends not only on the structures placed on and in settings and programs, but also on the people who act on those structures to create patterns of activity that can either advance, resist or stall change. (p. 296)

Karoly et al. (2005) explained that children start to learn language from the day they are born. As they grow and develop, their speech and language skills become increasingly more complex. They learn to understand and use language to express their ideas, thoughts, and feelings, and to communicate with others. During early speech and language development, children learn skills that are important to the development of literacy (reading and writing). This stage, known as early childhood literacy, begins at birth and continues through the preschool years. Children see and interact with print (e.g., books, magazines, grocery lists) in everyday situations (e.g., home, in preschool, and at daycare) well before they start elementary school. Gradually, children combine what they know about speaking and listening with what they know about print and become ready to learn to read and write.

In their joint position statement, *Learning to Read and Write: Developmentally Appropriate Practices for Young Children*, the International Reading Association and the National Association for the Education of Young Children (1998) confirmed that the first 8 years of a child's life are the most important years for literacy development and that developmentally appropriate practices at home and at school are crucial for ensuring that children become successful readers. In his speech at the U.S. Hispanic Chamber of Commerce conference on March 10, 2009, President Obama laid out his education agenda and the importance of education to all Americans. President Obama called for a focus on early learning, and said:

Even as we invest in early childhood education, let's raise the bar for early learning programs that are falling short. Now, today, some children are enrolled in excellent programs. Some children are enrolled in mediocre programs. And

some are wasting away their most formative years in bad programs. . . . That's why I'm issuing a challenge to our states: Develop a cutting-edge plan to raise the quality of your early learning programs; show us how you'll work to ensure that children are better prepared for success by the time they enter kindergarten. . . . We will reward quality and incentivize excellence, and make a down payment on the success of the next generation. (Remarks by President Barack Obama at the Hispanic Chamber of Commerce on a Complete and Competitive American Education, March 10, 2009)

Research demonstrates that high quality early learning programs help children arrive at kindergarten ready to succeed in school and in life (Burns, Griffin, & Snow, 1999). According to Burns et al. (1999), disadvantaged children who have access to such programs—from birth through age 5—are more likely to improve their cognitive, social, emotional, and language development, the later effects of which are well documented, to improve academic achievement, reduce the need for special education, increase employment and earnings, reduce crime and delinquency. Some children, however, enter elementary school without a strong background in literacy. The children most at risk of developing reading problems are those who begin school with low language skills, less phonemic awareness and letter knowledge, and less familiarity with literacy tasks and underlying purposes (Burns et al., 1999). Burns et al. (1999) acknowledged that the most important element in developing reading, listening, writing, and speaking skills in a child is an adult who stimulates a child's interest, scaffolds experiences, and responds to a child's earnest attempts to learn a skill. This is a critical skill that all adults who work

with children, including parents, must develop. Adults who just use language to direct, instruct, control, and punish will not help children develop complex language skills.

According to Hayes (2001), a great deal of historical evidence demonstrates the connections between low adult literacy, family poverty, and the academic performance of children living in poverty. The staggering numbers (among poverty and education rates) indicate an urgency for ABE programs to target adult literacy and early childhood literacy connections to meet the educational needs of parents and their children. Recognizing that quality early education is essential to help children develop early childhood literacy skills and overcome barriers to literacy, the following implications are proposed to empower parents, strengthen the quality of early childhood learning programs, and improve school readiness outcomes.

Implication 1

Since important literacy skills begin in infancy, parents are the first critical adult in a child's reading process. A central role of any early childhood program then becomes to provide as much information and support to parents as possible. If we want children to develop early childhood literacy skills we must help parents understand their critical role, and show them how to support literacy development at home. Parents, particularly mothers, are more likely to exert a positive influence on their children's academic achievement when they are able to enhance their own literacy skills (Hayes, 2001). According to Hayes (2001), ABE program administrators have become increasingly interested in the notion that educationally disadvantaged parents and children are a learning unit and that family and intergenerational literacy programs are a promising approach to empower parents in their role to read to their children more often, make

greater efforts to help them with their homework, take them to the library, and talk with them about school.

The mission of family literacy is to foster intentional connections between adult literacy and early childhood literacy programs is to break the cycle of intergenerational illiteracy and under-education of parents and their children. This mission is accomplished by encouraging collaboration and intentional connections between adult literacy programs and early childhood literacy programs. These connections may be as simple as complementary schedules and referrals between programs or may extend to some shared resources or experimental trial programs. These connections would serve to encourage true collaboration among ABE programs and agencies throughout the community. Components of adult literacy and early childhood literacy program would be integrated in ways that support each other. Pooled resources could be used to assist in providing a variety of services that help parents and children meet more attainable literacy outcomes and participate in a well-planned learning experience that meets their needs. No supplemental funds are required for these efforts since each program is providing its own separate services. This would be a transitional stage for many ABE programs that want to enter into a greater family literacy focus by reaching out to populations that have not yet been served or could be better served in their community.

Implication 2

Literacy development begins very early in a child's life and forms a foundation for the acquisition of conventional literacy (Burns et al., 1999). "Research consistently demonstrates that the more children know about language and literacy before they begin formal schooling, the better equipped they are to succeed in reading," note Burns et al.

(1999, p. 8). Parents, caregivers, and teachers need to ensure that young children are exposed to literacy rich environments and receive developmentally appropriate literacy instruction. Such environments and experiences have a profound effect on children's literacy development by providing opportunities and encouragement for children to become successful in reading and writing, and in turn, strengthens the quality of early childhood literacy efforts. Family literacy programs offer an effective intervention for enhancing the literacy development of young children. Children receive direct help with their language and literacy development. Parents receive help with their language and literacy development. The combination of these interventions enhances the parent's understanding of how best to guide and nurture the early development of their children and helps a families' ability to unravel the complex education system so they can better supervise their children in making a smooth transition from elementary to middle school, middle to high school, high school to college, and finally college to participation in the workforce and career (Burns et al., 1999).

ABE program administrators should first consider family strengths and needs when designing a family literacy programs. A family literacy program integrates separate components of adult literacy programs and early childhood programs to serve the family as a whole in order to develop literacy skills in parents and children together (Burns et al., 1999). ABE program administrators must establish staffing practices that emphasize integrated program development, active participation in all components and shared responsibility for program tasks. A fundamental goal of the family literacy initiative would be for the staff from the two entities to meet weekly to share information

about participants' achievements, attendance and access to resources, as well as, to plan integrated learning activities.

Implication 3

It is essential to recognize the adult's role as a full partner in their child's education. With increased adult literacy comes increased involvement in their child's education (Hayes, 1996). Further, Hayes (1996) proposes, as the literacy level of the parents rise, so does the academic performance of their children. One of the best indicators of a child's academic success is the educational attainment of the mother. According to Hayes (1996) children from families with undereducated parents historically perform at the lowest levels in school. In addition, data shows that these children are more likely to be absent from school, more likely to behave in ways that result in disciplinary actions by the schools, less likely to complete school, less likely to enroll in higher education, and less likely to secure high paying jobs (Hayes, 1996).

The roots of family literacy as an educational method come from the belief that the parent is the child's first teacher (Hayes, 1996). According to Hayes (1996), studies have demonstrated that adults who have a higher level of education tend to not only become productive citizens with enhanced social and economic capacity in society, but their children are more likely to be successful in school. Literate parents are better able to support the learning of their children. Thus, adult literacy and early childhood literacy programs should be designed to enable family members to construct useful meanings of literacy. Once in school, a child needs teachers with strong, research based skills in literacy instruction that have the support required to maintain these skills. Members of the community can help by tutoring children, helping parents, providing books, and

supporting schools. Such a strong start offers every child the opportunity to become a good reader by the end of third grade (Hayes, 1996).

Support of adult literacy and early childhood literacy focuses on strengthening the school readiness outcomes, and cognitive and psychosocial aspects, of children and promotes access to, and completion of, quality basic education and literacy. ABE students can cultivate literacy in their children if teachers are willing to devote the time and patience to assist such parents (Hayes, 1996). Teacher-parent interactions require that the teacher be sensitive, understanding, and responsive to the needs not only of the children but of the parents as well. The goal of educating parents is to empower and provide resources to parents who are a child's first teacher. ABE programs can provide parents and children the opportunity to share their newly developed literacy experiences. Parents and children interact together, enriching their relationship through reciprocal learning that takes place, enabling them to become true partners in education.

Implications for Leadership, Learning, and Service

According to Quigley (1997), the "literacy teaching-learning process is many things, but in the final analysis, it is an interpersonal relationship charged with emotion" (p. 2). The ABE programs are characterized by the embrace of a multiplicity of perspectives. Therefore, the following implications for leadership, learning, and service should be considered.

Implications for Leadership

Implication 1

Recognizing that in any group of adult students there is a wide range of motivational orientations, adult education program administrators need to provide a wide

range of learning options and activities that appropriately accommodate these differences. This element of flexibility and choice will help to insure that, for each adult learner in a group of learners, a degree of congruence will be achieved in the learning experience.

Implication 2

For program administrators who are aiming to make good design decisions about the content and structure of curriculum for adult ABE students, it is useful to have some guiding framework regarding the motivational orientations of adult learners. This premise suggests that ABE administrators construct appropriate learning environments that focus on the curriculum in which adults can be successful. Appreciating the many motivational orientations of adult students can inform the ways that ABE program administrators structure learning environments, which appropriately challenge and support the adult student.

Implication 3

The overall results of the study indicated that attitude, subjective norm, and general self-efficacy were strongly and positively related to the motivational orientations of ABE students. Demographic information provided the profile of the student population. Motivational orientations for promoting future attendance of ABE students were also determined from the results, which suggest that the TPB was appropriate for use in determining the strength of the relationship between attitude, subjective norm, and general self-efficacy, and motivational orientations. The TPB has served to collectively guide understanding of the motivational orientations of ABE students. This information is useful on three levels: first, they help frame our own expectations of why adult students enroll in ABE classes; second, they alert us to differences between the adult students in

our study and the content of their concerns or the trajectory of their motivational orientations; and third, they provide a window into the motivational orientations that are held by adult students, information that dedicated program administrators can use to help improve ABE programs.

Implications for Learning

Implication 1

The adult student perspective should be valorized rather than undermined. In its broadest meaning, according to Knowles (1998), adult learning describes a process . . . in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (p. 18).

Knowles (1998) argued that convincing evidence exists that people who take the initiative in learning (proactive learners) learn more things, and learn better, than do people who sit at the feet of teachers passively waiting to be taught (reactive learners): “Proactive learners enter into learning more purposefully and with greater motivation. Proactive learners also tend to retain and make use of what they learn better and longer than do the reactive learners” (p. 14).

Implication 2

Teachers are agents of transformation, whose responsibilities are first in the development of student capacities and success. Such a perspective suggests a participatory form of education in which diverse voices are to be represented not only within the curriculum but within the organizing structures of ABE programs.

Implication 3

ABE teachers and program administrators are valued on an equal level with adult students. ABE is a collaborative process of learning and teaching that is engaging, interactive, and directly relevant to the interests of the adult learners. Educators committed to ABE programs tend to see education in a broad sense (Beder, 1999). According to Beder (1999), an ABE program for these educators is more than remediating a student's learning. These educators have claimed that one of their roles is to get adult students to think of themselves in terms of multiple role players: as family members, as residents of a community, as citizens of society.

Implications for Service

Implication 1

While the goals for ABE programs range from helping adults become better prepared to participate in the workforce to developing skills (Evers et al., 1998), these goals are infused in this study with a different kind of understanding. While each of these goals is valuable in its own right, it is suggested in the study that it is also important to consider how adult learners are making sense of the reasons for enrolling in ABE classes so that better service can be provided to help adult learners reach their goals.

Implication 2

Similar to Boshier's (1991) perspective, the researcher believes that this kind of understanding will promote more effective service, allowing ABE program administrators to address the diverse learning needs of adults in ABE programs. Moreover, the researcher contends that the lens of the TPB is an overlapping framework to help educators understand how adult learners make sense of their motivational

orientations, orientation that can develop into a new sense of personal empowerment. Like Beder (1999), who also examined ABE learning contexts, this researcher maintains that ABE classrooms are not just places where adult students gain skills but are also dynamic holding environments where adult students can grow to better manage the complexity of their lives and their work.

Implication 3

Motivational orientations are concrete indicators of reasons why adult students enroll in ABE classes. They provide checkpoints for ABE administrators to target areas for improvement and design instruction that will serve the needs of ABE students. A quality that can make learning purposeful, motivational orientations are ways of thinking about learning that help make students successful in the learning process. Motivational orientations establish a basis for making learning outcomes more objective and consistent for ABE learners. Motivational orientations provide a common roadmap for what ABE students should learn about the subject covered. The motivational orientations are not curricula themselves. Rather, motivational orientations offer a basic structure for how and what is taught in ABE programs. They describe the components with which each ABE program administrator can design a curriculum that is relevant to serve the needs of ABE students.

Summary of Implications

In summary, these implications are stimulating because they suggest that the framework for ABE classes are also informative for adult learners of diverse cultural backgrounds who hold variable educational aspirations and that graduated forms of support practiced in traditional educational settings might be equally beneficial for

learners in ABE settings. More stimulating, however, are the implications of these findings for the larger debate currently underway in communities of ABE researchers, teachers, and policymakers concerning the appropriateness of different androgogic frameworks designed to maximize learning outcomes of ABE adult students (Knowles, 1998). It is suggested in this study that the debate over classroom culture would benefit from an understanding provided by students themselves regarding their motivational orientations that need to be taken into account when establishing norms for ABE teacher practice (Quigley, 1997).

The preceding implications have been stated with the intent that they will lead adult education program administrators to develop and implement specific policies and procedures that serve adult students well. Motivational orientations are important adult learner characteristics that can be diagnostically assessed and studied within the integrated TPB framework (Ajzen, 1991). Decisions should be focused around the creation of a blend of courses, activities, and experiences that will best meet the needs of adult students. In creating such a blend, adult education designers need to be cognizant of the influence attitude, subjective norm, and general self-efficacy have on motivational orientations. The individuality of the adult learner is further confirmed by this study. An examination of the variables of interest to this study has shown that adults have different and multiple reasons for enrolling in ABE classes. The individuality of the adult learner should also extend to the learning activity. The learning activity should utilize the independence and self-motivation of the adult student. The independent and dependent variables in this study have been conceptualized as continua. Each adult moves along the continua at a different rate and in a different way. Each adult approaches the learning

activity based on an individual timetable. Such an approach can start with an assessment of motivational orientations of adult students, in which Boshier's (1991) Motivational Orientation EPS A-Form can be used. For example, the reasons for participation in ABE classes can be used for learning activity choice as well as selection of materials and resources. For some adults, a supportive learning environment may be necessary, and learning activities should be designed with this need in mind.

The findings of this study might also contribute to the selection and development of ABE teachers. Adult students have primary reasons for participating in ABE classes. Adult education teachers need to know the reasons that their students enroll in ABE classes. Specific training may be needed for ABE teachers to become more skilled than they currently are as facilitators of learning to meet the diverse needs of adult learners.

Recommendations for Policy, Practice, and Future Research

The participants in this study were diverse; their racial identification suggests there would be more difference than similarity in their aims, ideals, and motivations for enrolling in ABE classes. Instead, for adult learners, this study shows a kind of regularity in interests and expressions of motivational orientations that can be interpreted somewhat successfully by applying the TPB. Listening to the voices of the adult student can provide insight into how policy, practice, and future research can improve the support offered by ABE education. Making meaning of the student's motivational orientations can inform decisions that impact and improve ABE programs and increase retention and persistence.

There is a need for a body of research on the study topic to be accessed by ABE program administrators, student services advisors, teachers, and policy makers to

determine how ABE programs can better serve ABE students. Understanding why adult students do not stay long enough to complete their ABE classes can be illuminated by making meaning of why these students enroll in ABE classes, as addressed in this study.

Recommendations for Policy

Policies that guide ABE education programs are often mandated by state or federal grants and departments, and are limited to how funds are budgeted and spent. Assessments and teacher quality may also be affected by public policy, but creators of local community college ABE programs have the autonomy to design their programs and adopt policies based on studies that can support the implementation of research-based strategies to support student needs and boost retention.

A policy area that needs to be addressed is how ABE students and programs are perceived on campus. ABE programs are often physically isolated from the main campus buildings, with little access to needed support services. In addition, ABE students may never come in contact with counselors or advisors. There may be sporadic attempts to provide information, but in cases of limited faculty and even more limited support staff, that is often not accomplished. In addition, grant management requires accountability and meeting benchmarks for funding purposes, which may translate to using staff and program resources in financially strapped programs to focus specifically on academic success, without attention to the other needs of the students. On these grounds, students with serious challenges, in addition to or other than academic challenges, may feel frustrated and unprepared to cope with their problems and may ultimately drop out of their ABE programs.

The research of Chaves (2006) supported the development of policy to recognize the presence of the adults on campus and demonstrate that they matter. Chaves offered strategies for ABE teachers to foster academic validation, including showing genuine concern, being approachable, treating students equally, and working with students individually as needed. In addition, Boshier (1991) encouraged the development of policies that support ABE program efforts to offer advising and career counseling to adult students and to build the environment to address the needs of these students.

Student service policies related to ABE programs are often limited due to the detachment of the ABE program and the schedules of ABE students. Hadfield (2003) described student service as an important strategy for encouraging ABE student retention. Some of Hadfield's recommendations include listening to the needs of the ABE student, helping students in the ABE program feel they are part of the community through flexible support office hours, ease of entry and registration, childcare, and free, accessible parking. These are all valuable policy recommendations that should be considered by ABE administrators and staff as they strive to improve student retention.

In making meaning of the motivational orientations of ABE student, a third policy area needs attention: students who do not attend class and are absent for periods of time. There is a need to have intensive follow up to determine reasons for absence and areas in which support from the ABE program may be beneficial to the students. Limited staff and time may make the implementation of a follow-up policy challenging to implement, but when students step out of the ABE program, such actions should be considered temporary departures, assuming the students are just waiting to return when the needed supports are in place. Implementation of this policy would assist students to feel

comfortable returning and enable staff to recognize that adult students may need to step out and back in of ABE classes as personal needs arise. The follow-up protocol should be student focused and as easy as possible to encourage a feeling that students are welcome back in class.

Recommendations for Practice

Practice in ABE programs can build on program efforts to encourage and support student motivation and goal setting. Beder and Valentine (1987) identified motivation as a key force in guiding adults toward education. According to Beder and Valentine, “Students attend in order to actualize their motivations” (p. 84). Boshier (1991) agreed the ABE instruction should address adult student needs based on knowledge about what is motivating the students to return to education. Boshier’s research supported the practice of identifying the reasons that students return to education as the first step in the process of understanding motivational orientations. Boshier’s research also supported the practice of including goal setting as more than a box to check on the initial intake form; it should be an ongoing process that requires regular dialog between the adult student and the ABE staff to establish, modify, and check progress toward reaching goals.

The ABE student’s goals may continually evolve as the student’s self-esteem is heightened. In the beginning of the educational journey, a student’s goal can be focused on one or more motivational orientations. As an adult, the student becomes fully aware of personal strengths and weaknesses; thus, the goal takes on a life of its own and the purpose of the goal begins to formulate (Chaves, 2006). Chaves (2006) indicated that once the adult student-defined goal manifests, the student’s movement toward the realization of the goal intensifies.

Hadfield (2003) suggested an additional practice to improve educational programs for adults, including hiring caring and trained ABE teachers; encouraging learning opportunities that immediately apply learning concepts; listening to the complaints, questions, and suggestions of the adult students; supporting ongoing assessment of student satisfaction; and having all staff, from the top administrators to the front line, demonstrate these practices.

A final recommendation for practice for ABE programs and staff relates to the adult student's skill development. Adult students returning to ABE classes may have limited social skills that they need for interacting with others, building networks, addressing personal problems, and believing in themselves. ABE program staff can support students by providing opportunities to build social networks among students and being intentional about identifying potential barriers to success. The students' strengths, the people who influence them, their educational plans, and their ability to set and achieve goals related to their education can be actualized through these efforts. Four strategies that could assist adult students include the following:

1. Offer an array of student support services that positively impact the personal, academic, and career success of ABE students.
2. Provide access to information regarding social service resources in the community.
3. Establish a classroom climate to help adult students feel accepted, respected, and supported so that a spirit of mutuality between the teacher and students as collaborative learners can take place.

4. Challenge the adult student to experiment with advanced technology by offering support and resources for learning to use a variety of tools.

Recommendations for Future Research

Millions of adults lack the basic skills necessary to be successful in the workplace and in society (Kutner et al., 2007). The fact is that involvement in an ABE program is a choice, and adult students often make considerable sacrifices to attend ABE classes. If adult students feel the ABE program is not helping them achieve their goals or is not structured for their specific needs, they may decide their personal investment is not worthwhile and drop out of the program. This study is a part of a continuing effort to gain further knowledge about adult student participation in education and develop a theoretical basis for explaining participation in ABE classes. As Boshier (1991) suggested, adults need to be properly matched to educational environments if they are to be successful. At the heart of successfully recruiting and retaining ABE students is an understanding of their motivations. ABE program administrators must recognize their students' needs and barriers. Insight into the adult student should not be based on assumption and supposition, but should be developed through research. In this time of rapid change, the focused, detail-rich information that research can provide is more important than ever before. To gain a better understanding of what ABE program administrators can do to improve program quality and access, the following research is recommended:

1. Research to examine ABE student nonparticipation to find out why, after enrolling in ABE classes, students decide to drop out or not participate.

2. Research to examine best practice used by ABE program designers to target adult students and to motivate and retain adult learners.
3. Research to explore the relationship between how teachers identify their students' needs and the teaching methods they subsequently use. If teacher assessment does link to practice, investigating this connection could support the planning of professional development opportunities for ABE teachers.
4. Research to examine the relationship between teachers' years of ABE teaching experience and their teaching practice with ABE adult students. If a correlation is found between these factors that positively contributes to student achievement, these data could then inform training and mentoring initiatives for new ABE teachers.

Listening to ABE teachers as they describe their practice with adult students is just the first step in understanding the current state of teaching and learning in ABE programs. Teachers' anecdotes also provoke questions that should move the ABE platform to deeper inquiry about how best to support them in their work so that they, in turn, can promote student success. While ABE program administrators and teachers may not be able to control external factors impacting student attrition, it is essential that such programs be strategically designed to encourage adult student persistence. Even though external factors are reported as the primary reasons for withdrawal of adult students, it should not be assumed that nothing can be done to prevent attrition. Adults who make the personal investment in learning deserve a broad array of high-quality program options that best meet their needs. ABE program administrators and teachers may use the

findings from this study to recruit new students, plan programs, and implement strategy for teaching and delivery methods.

Concluding Remarks

Providing ABE and literacy services for adults are both growing needs and growing concerns in the United States. The ABE system is critically important for millions of adults whose success depends in large part on their ability to master basic mathematics, reading, and writing. For millions, the ABE system offers the best hope for getting through the door behind which lie the benefits of American society: educational opportunities, jobs that pay a living wage, social mobility, and a better life for oneself and one's children. ABE, serving as an entry point for adults with low literacy skills, can play an important role in helping the adult student advance.

Providing ABE and literacy services to a wide variety of adults is a multi-faceted process that deserves closer attention if the system is to be effective. This chapter argues for differentiating services based on the motivational orientation needs of adults. Many adults have broad overlapping goals; others are looking not for general all-purpose ABE classes, but rather for focused, single-purpose classes that move them quickly toward their goals. To adapt to the needs of the adult student, it is essential for ABE program designers to have a much greater, magnified look at the complexity of the returning adult student. In the beginning of the educational journey, the adult student can be highly motivated and goal oriented. Once the journey has begun, the adult student must overcome a multitude of challenges to remain on a successful path. In the recent past, ABE program administrators have begun changing to try to accommodate the needs of the adult ABE student by creating learning communities, providing coursework that is

immediately applicable in the workplace, and investing in more flexible scheduling options to accommodate busy adult students.

The participants in this study were diverse, which would suggest that there would be more difference than similarity in their motivations for enrolling in ABE classes. Instead, this study demonstrated a kind of regularity to adult motivational orientations that can be interpreted somewhat successfully by applying a TPB. It has been the goal throughout this study that ABE teachers and program administrators might benefit from learning to look at their students' reasons for enrolling in ABE classes through the lens of the planned behavior theory. That lens may also shape the ways in which ABE teachers introduce or emphasize particular skills and ideas. Furthermore, it might provide a framework for evaluation that incorporates the adult learner's perspective among the more typical measures of ABE education programs. As an analytic tool, the TPB opens up an exploration of aspects of adult student experiences that other frameworks may obscure. The motivational orientation aspects include, at least, an attention to how adult students make sense of why they are enrolling in ABE classes, an awareness of the possible forms the ABE program can take on for learners at different developmental levels, and an assessment of ABE program demands from the point of view of the timely needs of the adult learner.

The adult learners who participated in this study have helped to expand understanding of the differing ways ABE learners seem to conceive of the functions, purposes, and practices of ABE classes and literacy in their lives. As Boshier (1991) urged, teachers need to become alert to the motivational orientations of the direction from which students are coming and listen to what the adult learners themselves have to say.

This study joins Boshier's perspective to focus on the importance of listening to what adult learners themselves say are their motivational orientations for enrolling in ABE classes. Thus, this study invites readers to don a different theoretical persona and take up a different journey in understanding the motivational orientations of adult students through the lens of the TPB. What is articulated in this study is the relationship of the determinants of the TPB on the motivational orientations of adult students enrolled in ABE classes. In the research, it is suggested that students who operate from different motivational orientations will appreciate and benefit from different forms and degrees of support. In each case, a fuller understanding of the motivational orientations of adult students, which undergird their educational and self-aspirations, is helpful and important to ABE teachers and program administrators striving to create optimal learning environments.

Returning to the insight of Boshier (1991), it should be recognized that adult learners bring their complex, changing, social identities into their ABE classes. Building upon Boshier's ideas, it is suggested in this study that the supports students need in the ABE classroom are an important influence upon their motivational orientations. Thus, it is believed that understanding motivational orientations of adult ABE student may powerfully aid students in creating and recreating futures of increased possibility. Practical ends are sometimes accomplished through transformational means.

Understanding motivational orientations can be inordinately pragmatic in that they may allow for development of ABE curriculum and ready access to ABE skills that previously escaped the best efforts of educators. By emphasizing the motivational orientations of adult learners and the types of support that scaffold them, educators can attend to the

immediate agenda adult learners put forward to advance their education and learning opportunities while also enhancing their capacity to envision greater goals for themselves than they originally conceived. In this way, the attainment of ABE skills can be enhanced, and barriers to personal success of the adult learner may eventually be dissolved.

The researcher hopes this study helps readers listen to the voice of the adult learners. The researcher also hopes that this work enables the reader to better understand the motivational orientation of ABE students, which can help ABE program administrators to move closer to creating optimal learning environments in which adult learners with a range of needs and range of motivational orientations can grow to experience greater personal empowerment than they had before enrolling in ABE classes. For it is within the ABE learning environment that adult learners can be offered forms of support and challenges that ease and enrich their journey to obtaining ABE skills. Educators and researchers should look at the ways adults can do things better than they did previously. It is part of human nature to want to do better, to want others to do better, to be proud to see someone reach for and attain a more complete realization of potential and to keep growing. ABE program administrators and staff may draw their own conclusions from the results and suggestions presented in this study. If there is something somewhere that strikes a responsive chord and causes reflection, or suggests another way of looking at or doing things, then this study of the motivational orientations of ABE students will not have been in vain.

A point is marked within the ABE learning environment that adult learners can be offered continuous support that will enrich their journey to acquire all the skills they need

to be more literate, increase their opportunity to earn a family sustaining wage, and be productive members of their community. Numerous questions remain, not least among them the inequality of opportunity between well-educated adults and illiterate adults in a learning society. ABE is the cornerstone of a learning society. It is about strengthening the mathematics, reading, and writing skills of adults and creating learning environments that empower each adult to reach their full potential and overcome barriers. It is a part of human nature to want to do better, to want others to do better, and to be proud to see someone reach for and be successful in their life goals.

I have a heart full of pride as I complete this dissertation and earn my doctoral degree. This milestone in my life illuminates the zenith of my academic credentials and professional designation. In spite of that, nevertheless, my heart is also heavy as I consider the millions of people who are unable to read and write. In the United States we take the gift of mathematics, reading, and writing for granted not realizing that millions in the United States are illiterate. The ability to read and write is an economic and social game changer all throughout the world. It is important that we stay vigilant in the push to improve education in the United States. Education is empowerment. Mathematics, reading, and writing are keys to the future. If we long to have a future citizenry in the United States who are broad in knowledge, and functionally literate in mathematics, reading, and writing, it begins in the home where parents start their children on the journey of empowerment through mathematics, reading, and writing. In other words, when one is able to read and write, new worlds are opened up . . . ideas formed . . . adventures dreamed. Ultimately, my vision is that every child in the United States will have access to a high-performing school and will graduate from high school with the

knowledge, skills, and behaviors necessary to succeed in a competitive global economy. It is hoped that this work will influence ABE policy, advocacy, and accountability, as well as efforts to help children acquire essential early literacy skills. For

Education is the great engine of personal development. It is through education that the daughter of a peasant can become a doctor, that a son of a mineworker can become the head of the mine, that a child of farm workers can become the president of a nation. (Nelson Mandela, South African statesman—First democratically elected State President of South Africa (1994), 1993 Nobel Prize for Peace)

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Appendix A

Survey Instrument

**An Investigation of the Relationship Between Student Attitude, Subjective Norm,
General Self-Efficacy and Motivational Orientation
of Adult Basic Education (ABE) Students at a Community College**

Your Student Rights	This Survey is Voluntary - You decide whether to respond to some, all, or none of the survey questions.
	Anonymous and Confidential - Your survey responses are voluntary and will be anonymous and confidential. No one will know which survey instrument you completed or which survey responses are yours.
	Informed Consent - Filling out this survey indicates that I am giving my informed consent to be a participant in this research study.

- Use a pencil or blue or black pen.
- Fill bubbles completely.
- Do not mark answers with Xs or ✓s.

Like this: Not like this: 

There are no right or wrong answers. Please answer each question honestly and candidly. If you are unsure about how to answer a question, please give the best answer you can. The survey instrument consists of 5 survey questionnaires. Four of the questionnaires require that you choose a degree of agreement (1 = strongly agree; 2 = tend to agree; 3 = tend to disagree; and 4 = strongly disagree). The survey instrument has a total of 80 questions. It is expected that it will take no more than 45 minutes to complete the survey, but it may take a longer or shorter amount of time.

Thank you for participating in this survey. Your time is appreciated!

Kindest regards, Maureen Crump-Phillips - Principal Researcher

**Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.**

<p>1. What is your gender?</p> <p><input type="radio"/> Female</p> <p><input type="radio"/> Male</p>	<p>4. What is your racial identification? (Mark only ONE)</p> <p><input type="radio"/> American Indian, Eskimo, or other Native American</p> <p><input type="radio"/> Asian, Asian-American, or Pacific Islander</p> <p><input type="radio"/> Black or African-American, Non-Hispanic</p> <p><input type="radio"/> Caucasian or White, Non-Hispanic</p> <p><input type="radio"/> Hispanic, Latino, or Spanish</p> <p><input type="radio"/> Native Hawaiian</p> <p><input type="radio"/> Mixed Race</p> <p><input type="radio"/> Other</p>	<p>5. What is your employment status?</p> <p><input type="radio"/> Employed full-time, work at least 38 hours a week</p> <p><input type="radio"/> Employed part-time, work less than 38 hours a week</p> <p><input type="radio"/> Not employed, not working</p>
<p>2. What is your age?</p> <p><input type="radio"/> 18 to 19 <input type="radio"/> 30 to 39</p> <p><input type="radio"/> 20 to 21 <input type="radio"/> 40 to 49</p> <p><input type="radio"/> 22 to 24 <input type="radio"/> 50 to 59</p> <p><input type="radio"/> 25 to 29 <input type="radio"/> 60+</p>	<p>3. What is your marital status?</p> <p><input type="radio"/> Single</p> <p><input type="radio"/> Married</p> <p><input type="radio"/> Divorced</p>	<p>6. Which MATC Campus are you attending today?</p> <p><input type="radio"/> Milwaukee <input type="radio"/> Oak Creek</p> <p><input type="radio"/> Mequon <input type="radio"/> West Allis</p>
<p>7. Which Adult Basic Education (ABE) class are you attending today?</p> <p><input type="radio"/> ABE Math class <input type="radio"/> ABE Reading class <input type="radio"/> ABE Writing class</p>		

	Next semester	Within the next 12 months	I have no plan to enroll	Not sure
8. When do you plan to enroll in a (or another) ABE Math class?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. When do you plan to enroll in a (or another) ABE Reading class?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. When do you plan to enroll in a (or another) ABE Writing class?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1

→ NEXT →

Survey Instrument

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	0 none	1	2	3	4	5	6	7	8	9	10 or more
11. How many ABE Math classes have you taken previously?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. How many ABE Reading classes have you take previously?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. How many ABE Writing classes have you taken previously?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
14. Continuing education is mostly for people with little else to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I dislike studying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Successful people do not need continuing education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am fed up with teachers and classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Money spent on continuing education for employees is money well spent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Continuing my education would make me feel better about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I enjoy educational activities that allow me to learn with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Continuing education is an important way to help people cope with changes in their lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Continuing education helps people make better use of their lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
23. People who are important to me think I should enroll in an Adult Basic Education (ABE) class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. People who are important to me would be disappointed if I did not enroll in an Adult Basic Education (ABE) class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. People who are important to me expect me to enroll in an Adult Basic Education (ABE) class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. People who are important to me are supportive of me enrolling in an Adult Basic Education (ABE) class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
27. If something looks too complicated I will not even bother to try it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. I avoid trying to learn new things when they look too difficult.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. When trying to learn something new, I soon give up if I am not initially successful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey Instrument

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
30. When I make plans, I am certain I can make them work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. If I cannot do a job the first time, I keep trying until I can.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. When I have something unpleasant to do, I stick to it until I finish it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. When I decide to do something, I go right to work on it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Failure just makes me try harder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
35. When I set important goals for myself, I rarely achieve them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. I do not seem capable of dealing with most problems that come up in my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. When unexpected problems occur, I do not handle them very well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. I feel insecure about my ability to do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Think back to when you enrolled in your Adult Basic Education (ABE) class and indicate the extent to which each of the reasons listed below influenced you to enroll in the class.

*Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.*

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
39. To improve language skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. To speak better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. To learn another language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. To write better	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. To help me understand what people are saying and writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. To learn about the usual customs here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
45. To become acquainted with friendly people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. To have a good time with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. To meet different people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. To make friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. To make new friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. To meet new people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
51. To pass the GED test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. To get the required score on the Accuplacer test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. To acquire knowledge to help with other educational courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54. To prepare for further education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. To do courses needed for another school or college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56. To get entrance to another school or college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Survey Instrument

Please answer every question by filling in the circle completely!
If you are unsure about how to answer a question, please give the best answer you can.

	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
57. To secure professional advancement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58. To achieve an occupational goal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59. To prepare for getting a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
60. To give me higher status in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
61. To get a better job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
62. To increase my job competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
63. To get ready for changes in my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
64. To share a common interest with my spouse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
65. To keep up with others in my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
66. To keep up with my children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
67. To answer questions asked by my children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
68. To help me talk with my children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
69. To overcome the frustration of day to day living	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
70. To get away from loneliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
71. To get relief from boredom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
72. To get a break in the routine of home or work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
73. To do something rather than nothing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
74. To escape an unhappy relationship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly agree	Tend to agree	Tend to disagree	Strongly disagree
75. To get something meaningful out of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
76. To acquire general knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
77. To learn just for the joy of learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
78. To satisfy my inquiring mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
79. To seek knowledge for its own sake	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
80. To expand my mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your survey responses will remain confidential and individual responses will not be reported.

Thank you for letting your voice be heard by participating in this survey!

Appendix B

Milwaukee Area Technical College Approval Letter



Institutional Review Board

Memorandum

To: Maureen R. Crump-Phillips

From: Yan Wang, Ph.D., Chair
Institutional Review Board (IRB)
Milwaukee Area Technical College

Re: IRB Approval Letter

Title: An investigation of the relationship between student attitude, subjective norm, general self-efficacy, and motivational orientation of Adult Basic Education (ABE) students at a community college

Date: June 13, 2012

After review of your revised IRB request on study titled “An investigation of the relationship between student attitude, subjective norm, general self-efficacy, and motivational orientation of Adult Basic Education (ABE) students at a community college”, the IRB at MATC approved your request. This approval is effective for one year.

If you have any questions or if your plans for human subject involvement change substantially from those approved by the IRB, please contact the IRB chair at 414- 297-8509 or email to wangy@matc.edu.

Please note that it is the principal investigator’s responsibility to promptly report to the IRB any changes in the research project, whether these changes occur prior to undertaking, or during the research. In addition, if harm or discomfort to anyone becomes apparent during the research, the principal investigator must contact the IRB chair. Upon completion of the study, please submit a Statement of Closure.

Additionally, if MATC students’ records are needed for the study, it is the principal investigator’s responsibility to submit a copy of your request to the Registrar, Sarah Adams, at 414-2976595 or adamss4@matc.edu, to assure compliance to FERPA, the student privacy act. Clearance from the IRB does not override the privacy protections of FERPA because FERPA does not have a research exception.

Thank you for your cooperation and best wishes for a successful project.

Cc: IRB committee members

Appendix C

Cardinal Stritch University Approval Letter



COLLEGE OF EDUCATION and LEADERSHIP
ADVISORY COMMITTEE
IRB PROPOSAL

APPROVAL LETTER

Date of IRB Submission to Advisory Committee: June 27, 2012

Student Researcher: Maureen Crump-Phillips **Advisor:** Mette Baran

Department: Doc

Title: An investigation of the relationship between student attitude, subjective norm, general self-efficacy & motivational orientation of Adult Basic Education (ABE) students at a community college

DO NOT WRITE BELOW THIS LINE

Exempt Expedited

ACTIONS: Approved
Request Additional Information
Approved Conditionally with Recommended Changes
Send to Full IRB

RECOMMENDATIONS: None

Note: Institutional Review Board approval is for a period of 12 months. In the event that the research is not completed within the 12-month period, the proposal must be resubmitted to the IRB. Significant changes or additions must also be submitted.

Respectfully,

Joan L. Whitman, Assistant Professor **Date:** July 2, 2012
Chair, IRB Advisory Committee, College of Education and Leadership
Cardinal Stritch University
6801 N. Yates Road, Box 375
Milwaukee, WI 53217

Appendix D

Survey Instrument Cover Page

STUDENT RESEARCH PARTICIPANT INFORMATION SHEET TO KEEP

RESEARCH STUDY TITLE: An Investigation of the Relationship Between Student Attitude, Subjective Norm, General Self-Efficacy and Motivational Orientation of Adult Basic Education (ABE) Students at a Community College

PRINCIPAL RESEARCHER: Maureen Crump-Phillips (phone: 262-238-2466)
(email: crumpphm@matc.edu)

DESCRIPTION OF THE RESEARCH

The purpose of this survey is to gather feedback from you about your reasons for enrolling in Adult Basic Education (ABE) classes at Milwaukee Area Technical College (MATC). Obtaining feedback from you is vital to this process. Let your voice be heard. The information you provide will be used in the researcher's ongoing efforts to better understand ABE students, as well as shed light on how curriculum and support services may be improved to meet your needs and further assist you in being a student.

You have been asked to participate in this study because you are a student currently enrolled in an ABE class at MATC. The purpose of this research is to learn more about ABE students.

YOUR PARTICIPATION IN THIS RESEARCH STUDY IS VOLUNTARY

You decide whether to respond to some, all, or none of the survey questions. Your decision about if and how to participate in this research study will in no way have a negative impact on the services you receive at MATC.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to take participate in this research study, you will be asked to complete a survey instrument that has a total of 75 questions. The survey instrument consists of 5 survey questionnaires. Four of the questionnaires require that you choose a degree of agreement (1 = strongly agree; 2 = tend to agree; 3 = tend to disagree; and 4 = strongly disagree).

ARE THERE ANY RISKS TO ME?

There are no risks to you. All survey responses and resulting data collected from this survey will be compiled together, analyzed, and presented in a cumulative format, with no potential identifiers to a particular student.

All information will be reported without identifying students by name or background. Instructors and others will not be able to see the data collected from each student.

ARE THERE ANY BENEFITS TO ME?

The data and information you provide will benefit current and future ABE students enrolling at MATC.

Survey Instrument Cover Page

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

This study is anonymous and confidential. No one will know which survey instrument you completed or which survey responses are yours. Survey responses will not be identified by individual student.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask questions about this research study at any time. If you have questions about the research study after you leave today you should contact me,

Maureen Crump-Phillips - Principal Researcher
262-238-2466
crumpphm@matc.edu

If you have more questions, or want to talk with someone about your rights as a research participant at MATC you should contact:

Yan Wang, Ph.D. – Chairperson, Institutional Review Board
Milwaukee Area Technical College
700 West State Street, Room M222
Milwaukee, WI 53233
414-297-8509
wangy@matc.edu

In addition, if you have more questions, or want to talk with someone about your rights as a research participant, you can contact the following individuals at Cardinal Stritch University:

Mette Baran, Ed.D. – Principal Researcher Advisor
Cardinal Stritch University
Doctoral Studies
6801 N. Yates Rd., Room 205
Milwaukee, WI 53217

Joan Whitman - Chairperson, Institutional Review Board
Cardinal Stritch University
6801 N. Yates Rd.
Milwaukee, WI 53217-3985
414-410-4343

Thank you so much for your time and participation in this survey. You are greatly appreciated!

Kindest regards,
Maureen Crump-Phillips, Principal Researcher
Manager of Student Services
MATC Mequon Campus

Appendix E

Recruitment Email to MATC Adult Basic Education (ABE) Reading, Writing, and Mathematics Instructors

Dear MATC Adult Basic Education (ABE) Instructor,

My name is Maureen Crump-Phillips and I am a graduate student in the Doctorate in Leadership for the Advancement of Learning and Service at Cardinal Stritch University. I am working on a research project examining the reasons adult students enroll in Adult Basic Education (ABE) classes at Milwaukee Area Technical College (MATC). I have contacted you to request your permission to administer a survey instrument to your students during a regularly scheduled class that is held between July 2, 2012 and September 30, 2012 and to identify a convenient class date and time for the administration of the survey instrument. Please consider the following:

- a) You are not obligated to allow your students to participate in the study even though the study has received Institutional Review Board (IRB) approval from the MATC IRB. It is up to you, as the instructor, to decide whether you want to use your class time to allow your students to participate in this study.
- b) Each student's participation in the survey is voluntary and uncompensated. The student can decide whether to respond to some, all, or none of the survey questions. The student can end the survey at any time. Each student's decision about if and how to participate in this research study will in no way have a negative impact on the services received at MATC. If a student decides not to take the survey, it is requested that the student remain in the classroom during the administration of the survey.
- c) Each student's confidentiality will be protected. Survey responses will not be identified by individual. All survey responses and resulting data collected will be compiled together, analyzed, and presented in a cumulative format, with no potential identifies to a particular student.
- d) It is expected that each student will take no more than 45 minutes to complete the survey instrument, but it may take a longer or shorter amount of time. This information is shared with you so that you can prepare accordingly in case there is time left in the class period after the students complete the survey instrument.
- e) As a courtesy to you and as compensation to your students, I would like to offer a group coaching session to the students in your class that will cover the topics of motivation, attitude, and success, as well as include a self-guided career assessment and exploration. The intent of the group coaching session is to enhance student learning from taking the survey, as well as my coaching.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

If you have any questions about your rights as an instructor or if you would like to provide input regarding this study, you can talk with:

Yan Wang, Ph.D. – Chairperson, Institutional Review Board
 Milwaukee Area Technical College
 700 West State Street, Room M222
 Milwaukee, WI 53233
 414-297-8509
 wangy@matc.edu

Recruitment Email to MATC Adult Basic Education (ABE) Reading, Writing, and Mathematics Instructors

In addition, if you have more questions, or want to talk with someone about your rights as an instructor, you can contact the following individuals at Cardinal Stritch University:

Mette Baran, Ed.D. – Principal Research Advisor
Cardinal Stritch University
Doctoral Studies
Cardinal Stritch University
6801 N. Yates Rd., Office 205
Milwaukee, WI 53217

Joan Whitman - Chairperson, Institutional Review Board
Cardinal Stritch University
6801 N. Yates Rd.
Milwaukee, WI 53217-3985
414-410-4343

Please say yes and grant me your permission to administer the survey instrument to your students during a regularly scheduled class that is held between July 2, 2012 and September 30, 2012. Please give me some dates and times that I can come to your class to administer the survey instrument to your students. Thank you for your time and participation! Feel free to contact me if you have any questions. You can email me at crumpphm@matc.edu or you can call me at 262-238-2466.

Kindest regards,
Maureen Crump-Phillips, Principal Researcher
Manager of Student Services
MATC Mequon Campus

Appendix F

Glossary of Statistical Terms

Alpha (α)

Statisticians use the Greek letter alpha (α) to indicate the probability of rejecting the statistical hypothesis. Before conducting any statistical test, it is important for the researcher to establish a value for α . The researcher set the alpha level for this study at .05. The difference between p -value statistic and alpha is that p -value statistic is the actual probability associated with the obtained value, whereas alpha is the level of probability determined in advance at which the null hypothesis is rejected. In this study, the null hypothesis will be rejected when the p -value is less than or equal to (\leq) .05 (Bluman, 2010, p. 404).

Alternative Hypothesis

The alternative hypothesis is symbolized as H_1 . The alternative hypothesis is always expressed in terms of population parameters because the researcher is interested in making statements about the population parameters based on the sample statistics. For this study, the alternative hypothesis was rejected when the significance level is greater than .05; and the null hypothesis was accepted (Bluman, 2010, p. 399).

ANOVA

ANOVA is a statistical method used to test general, rather than specific, differences among means. ANOVA tests hypotheses to determine the degree of difference or similarity between two or more groups of data. Thus, the test will not specify which two, or if some or all, of the groups differ. ANOVA puts all the data into

one number (F) and gives *one* Sig. (p -value) for the null hypothesis (Bluman, 2010, p. 602).

With ANOVA, the ratio of variance is computed between groups variance to within groups variance. Recall that variance is the average square deviation of scores about the mean. The same value will be computed, but as the definition suggests, it will be called the mean squares (MS) for the computations. In an ANOVA, the interest is in the individual group means and confidence intervals for them, the overall F -test (ratio) to see whether or not all the means are equal, and in doing confidence intervals and hypothesis tests for differences between individual means (Bluman, 2010, p. 603).

ANOVA Descriptive Table

The ANOVA descriptive table provides some descriptive statistics, including the mean, standard deviation, and 95% confidence intervals for the dependent variable for each separate group, as well as when all groups are combined (total). The descriptive statistics are used to describe the data (Field, 2009, p. 381).

ANOVA Output Summary Table

The ANOVA output summary table summarizes the ANOVA calculations. This table shows the output of the ANOVA analysis values for partitioning between and within, SS, the df, the MS, and the final F . It also shows whether a statistically significant difference exists between the means of the group. An ANOVA summary table shows statistical significance at the .05 level by a single asterisk (*), at the .01 level by a double asterisk (**), and at the .001 level by a triple asterisk (***) (Field, 2009, p. 382).

Between Groups Row

The “Between Groups” row represents what is often called explained variance. This is the variance that is due to the independent variable. Between is shorthand for variability between groups—it measures how far apart the group means are from each other. The basic idea is that if there is more between group variance than within group variance, it shows that the means are different (Bluman, 2010, p. 603).

Confidence Interval

A confidence interval gives an estimated range of values which is likely to include an unknown population parameter, the estimated range being calculated from a given set of sample data. If independent samples are taken repeatedly from the same population, and a confidence interval calculated for each sample, then a certain percentage (confidence level) of the intervals will include the unknown population parameter. For this study, the confidence intervals were calculated so that this percentage was 95% (Field, 2009, p. 43).

Confidence intervals are more informative than the simple results of hypothesis tests (where it is determined to “reject H_0 ” or “don’t reject H_0 ”) since they provide a range of plausible values for the unknown parameter (Field, 2009, p. 172).

1. Confidence Limits

- a) Confidence limits are the lower and upper boundaries/values of a confidence interval; that is, the values which define the range of a confidence interval.
- b) The upper and lower bounds of a 95% confidence interval are the 95% confidence limits (Field, 2009, p. 172).

2. Confidence Level

- a) The confidence level is the probability value $(1 - \alpha)$ associated with a confidence interval. t is often expressed as a percentage. For this study, the α value was equal to .05, which is equal to 5%, then the confidence level was equal to $1 - .05$ which is equal to .95, which yielded a confidence level of 95%.
- b) If the confidence interval includes 0 it is determined that there is no significant difference between the means of the two populations, at a given level of confidence (Bluman, 2010, p. 356).

Correlation

Correlation is a statistical technique that measures and describes the relationship between two variables. The value of the correlation gives us a measure of strength, and the sign (positive or negative), a measure of direction. Correlation indicates whether there is a relationship between two variables, but not what causes the relationship or what the relationship means. Correlation can determine whether there is a relationship between variable x and variable y , but not whether variable y comes from variable x or whether variable x comes from variable y (Cohen et al., 2003).

The properties of the correlation include

1. **The strength of the relationship:** A correlation also measures the “strength” of the relationship between X and Y . A correlation will have a value between -1 and +1. A correlation of 0 means that there is no relationship. A correlation of +1 means that there is a positive “perfect correlation” between two, and a correlation of -1 means that there is a negative perfect correlation.

2. The direction of the relationship

- a) **Positive correlation** (a positive number) means that the two variables tend to move in the same direction. That is, as one gets larger, so does the other.
- b) **Negative correlation** (a negative number) means that the two variables tend to move in opposite directions. That is, as one gets larger, the other gets smaller (Bluman, 2010, pp. 531-537).

Correlation Coefficient

The correlation coefficient (r) is used to indicate the relationship of two random variables. All correlation analyses express the strength of linkage or co-occurrence between two variables in a single value between -1 and +1 (Cohen et al., 2003). This value is called the correlation coefficient. It provides a measure of the strength and direction of the correlation varying from -1 to +1. Positive values indicate that the two variables are positively correlated, meaning the two variables vary in the same direction. Negative values indicate that the two variables are negatively correlated, meaning the two variables vary in the contrary direction. Statistically significant implies that it reflects a true (rather than due to chance) correlation in the population. The closer r is to -1 or +1 reveals the two variables are highly related. In other words, the two variables have a stronger the relationship (Cohen et al., 2003). In this study, the strength of the correlation will be describes using the following guidelines:

1. For values of r .80 to 1.0, the correlation is very strong.
2. For values of r .60 to .79, correlation is strong.
3. For values of r .40 to .59, correlation is moderate.
4. For values of r .20 to .39, correlation is weak.

5. For values of r .16 to .19, correlation is very weak.
6. For values of r .00 to .15, no correlation; correlation is too low to be meaningful (Bluman, 2010, p. 533).

When the Statistical Package for the Social Sciences (SPSS) calculates the correlation it also calculates the significance, or *p-value*. The *p-value* is compared to the critical value set by the researcher. SPSS uses one asterisk to indicate the *p-value* is at the significance level of (*) $p < .05$, two asterisks to indicate the *p-value* is at the significance level of (**) $p < .01$, and three asterisks to indicate the *p-value* is at the significance level of (***) $p < .001$ (Field, 2010, p. 495). A number of correlation methods are used for different situations. As a result, this study will use Pearson's Correlation (r). Pearson's correlation (r) will now be explained in more detail.

Pearson's Correlation (r)

Pearson's correlation, typically denoted with r , is used when the variables are interval or ratio data. Pearson's correlation (r) is proposed as a measure of the strength of the linear relationship between two variables. The Pearson's correlation (r) assesses the degree that quantitative variables are linearly related in a population. According to Cohen et al. (2003), each population must have scores on two quantitative variables (i.e., continuous variables measured on the interval or ratio scales). Cohen et al. (2003) explained that the significance test for r evaluates whether there is a linear relationship between two continuous random variables in the population. It does not assume normality although it does assume finite variances and finite covariance. When the variables are bivariate normal, Pearson's correlation provides a complete description of the association.

Pearson's Correlation (r) Decision Rules

1. When r is close to 1

This means that there is a strong relationship between the two variables. This means that changes in one variable are strongly correlated with changes in the second variable. When r is very close to 1, the researcher will conclude that there is a strong relationship between the variables. However, the researcher cannot make any other conclusions about this relationship, based on this number.

2. When r is close to 0

This means that there is a weak relationship between the two variables. This means that changes in one variable are not correlated with changes in the second variable. When r is close to 0, the researcher will conclude that the variables are not strongly correlated.

3. When r is positive (+)

This means that as one variable increases in value, the second variable also increases in value. Similarly, as one variable decreases in value, the second variable also decreases in value. This is called a positive correlation. The value is positive because SPSS did not put a negative sign in front of it. So, in SPSS, positive is the default.

4. When r is negative (-)

A negative value of r indicates a negative relationship. This means that as one variable increases in value, the second variable decreases in value. This is called a negative correlation (Bluman, 2010, pp. 533-537).

Correlational Method

With the correlational method, two variables are observed to see if there is a relationship (Bluman, 2010, p. 531).

Critical Value (p -value)

A critical value (p -value) is a term used in statistics that represents the number that must be achieved in order to demonstrate statistical significance. This cutoff value determines the boundary between those samples resulting in a test statistic that leads to rejecting the null hypothesis and those that lead to a decision not to reject the null hypothesis. For this study the p -value was set at .05. If the calculated value from the statistical test was less than or equal to the p -value of .05, a decision was made to reject the null hypothesis and accept the alternative hypothesis. If the calculated statistic was greater than the p -value of .05, then a decision was made to not reject the null hypothesis and reject the alternate hypothesis (Bluman, 2010, p. 404).

Data

Data are measurements or observations. A data set is a collection of measurements or observations. A datum (singular) is a single measurement or observation and is commonly called a score or raw score (Bluman, 2010, p. 3).

Degrees of Freedom (df)

The concept of degrees of freedom (df) is used in calculating the t statistic. The df represents the number of scores in a sample that are free to vary in calculating each statistic. To calculate the df , the number of restrictions are subtracted from the sample size (N) to determine the df . When calculating the t statistic for a one-sample test, we

start with the sample size N and lose 1 degree of freedom for the population standard deviation we estimate (Bluman, 2010, p. 368).

Dependent Variable

The dependent variable is the one that is observed for changes in order to assess the effect of the treatment. In this study, the dependent variables were the seven motivational orientations (Communication Improvement, Social Contact, Educational Preparation, Professional Advancement, Family Togetherness, Social Stimulation, and Cognitive Interest) (Bluman, 2010, p. 14).

Descriptive Statistics

Descriptive statistics are statistical procedures used to summarize, organize, and simplify data (Bluman, 2010, p. 4).

F-Test (F)

An F -test (one-way ANOVA) is testing for differences among more than two group means. It is important to understand that the ANOVA and the F -test ratio it yields is a ratio of explained variance versus error. This actual F -test ratio is in the next to last column, and the probability of the F -test ratio, denoted as *Sig.*, is in the final column. If *Sig.* was less than or equal to .05, a conclusion was made that the groups were statistically significantly different from one another (Bluman, 2010, p. 603).

Homogeneity of Variances

The assumption of homogeneity of variances is that the variance within each of the populations is equal. This is an assumption of analysis of variance (ANOVA). ANOVA works well even when this assumption is violated except in the case where there

are unequal numbers of subjects in the various groups. If the variances are not homogeneous, they are said to be heterogeneous (Field, 2009, p. 133).

One of the assumptions of the ANOVA is that variances of the subgroups of data (defined by factor levels) are equal. Levene's test is used to test whether the subgroups of data have equal variances. Equal variances across samples are called homogeneity of variances. ANOVA assumes that variances are equal across groups or samples. The Levene test can be used to verify that assumption and test whether this is the case. The null hypothesis tested is "all population variances are equal," against the alternative hypothesis, "all population variances are not equal." If the null hypothesis is rejected, then it is possible to perform a number of multiple comparisons to determine which pairs of subgroups have significantly different variances (Field, 2009, p. 133).

Hypothesis

Hypothesis is a prediction about the outcome of an experiment. A hypothesis makes a prediction about how the manipulation of the independent variables will affect the dependent variables. Hypothesis is tentative because evidence for hypothesis can only be found after being empirically tested. The testing of hypotheses is an important step in this evidence gathering process (Bluman, 2010, p. 399).

Hypothesis Testing

Hypothesis testing is an inferential procedure that uses sample data to evaluate the credibility of a hypothesis about a population (Bluman, 2010, p. 398).

Independent Variable

The independent variable is the variable that is manipulated by the researcher. In this study, the independent variables included attitude, subjective norm, and general self-

efficacy along with gender, age, marital status, racial identification, employment status, which campus the respondent was attending, which ABE class the respondent was attending, plans to enroll in another ABE Mathematics class, plans to enroll in another ABE Reading class, plans to enroll in another ABE Writing class, how many ABE Mathematics classes were previously taken, how many ABE Reading classes were previously taken, and how many ABE Writing classes were previously taken (Bluman, 2010, p. 14).

Interquartile Range (IQR)

The interquartile range (IQR) is the distance between the upper quartile (75th percentile) and the lower quartile (25th percentile) in a set of data (Bluman, 2010, p. 159). The middle quartile (50th percentile) is also the median. So this corresponds to the middle 50% of the scores of the study distribution (Field, 2009, pp. 21-23).

Data divided into four equal quadrants are called quartiles (quartile sounds like quarter which means .25 or 1/4). The bottom quarter of data, or the 1st 25 % is called the 1st quartile or Q1. The bottom 75 % is called the 3rd quartile or Q3. These values give six numbers to describe the data in some of the statistical tables in this study. The summary of the seven numbers include mean, median, mode, minimum, maximum, 25th percentile, and 75th percentile (Field, 2009, p. 23).

The **mean** and the **median** describe the center of the distribution when it is roughly normally distributed (the **mode** describes the most frequent value, which is not necessarily the center). The minimum (**Min.**) and maximum (**Max.**) values describe the end points. Two other points of interest which come up in this study are the **25th** percentile and the **75th** percentile. These are the locations between the middle and

minimum and between the middle and maximum, respectively. Any percentile can be identified for a set of data (Field, 2009, pp. 21-23).

Level of Significance

Level of significance indicates how likely a result is due to chance (Bluman, 2010, p. 404). In this study, the α value was used to indicate significance. For this study, the α value was set at .05 to indicate significance. When SPSS calculates the Pearson's correlation (r), it also calculates the level of significance, or *p-value*. For this study, α was set at .05, meaning that the result had a 5% chance of not being true, which is the opposite of a 95% chance of being true. The output reports the correlation coefficient and whether the outcome is statistically significant (i.e. $p \leq .05$) (Bluman, 2010, p. 404).

Levene's Test for Equality of Variances

Levene's test for equality of variances is testing for differences among the study group's (2 or more) variances. If the significance for Levene's test is .05 or below, then the "Equal Variances Not Assumed" (EV no as.) test (the one on the bottom) will be used. Otherwise the "Equal Variances Assumed" (EV as.) (the one on the top) will be used. The independent *t*-test assumes the variances of the two groups that are being measured to be equal. If the variances are unequal, this can affect the Type I error rate. The assumption of homogeneity of variances can be tested using Levene's Test of Equality of Variances, which is produced in SPSS when running the independent *t*-test. SPSS gives the Levene's test by default when the independent *t*-test is being conducted (Field, 2009, p. 436).

This test for homogeneity of variances provides an *F*-test ratio and a significance value (*Sig.*) which is equal to the *p*-value. In this study, the primary concern was with the

Sig. value. If the *Sig.* value was greater than .05, the group variances were treated as equal. However, if the *Sig.* value was less than or equal to (\leq) .05, the group variances were treated as unequal and the assumption of the homogeneity of variances have been violated. From the result of Levene's Test for Equality of Variances, the null hypothesis can be rejected if there is no difference in the variances between the groups and the alternative hypothesis that there is a significant difference in the variances between groups can be accepted (Field, 2009, p. 436). When reporting the result of an independent *t*-test, the following values were included: *t*-statistic value, the degrees of freedom (df), and the significance value of the test (*p*-value). The format of the test result was $t(df) = t\text{-statistic}, p = \text{significance value}$. Therefore, for the example, the result was reported as $t(x) = y, p = z$ (Field, 2009, p. 436).

Mean (\bar{x})

The mean is essentially just another name for the average. The mean is calculated by adding all of the values together, then dividing by the number of original values. The mean is the arithmetic average of a set of given numbers (Bluman, 2010, p. 114).

Median

The median is the numerical value which falls in the middle of a sorted number set. The median is the numerical value separating the higher half of a sample or probability distribution from the lower half. Exactly 50% of the individuals in the study have scores at or below the median. The median is equivalent to the 50th percentile. If there is an even number in the sorted number set, then there is no single middle value; the median is then usually defined to be the mean of the two middle values (Bluman, 2010, p. 117).

Mean Squares (*MS*) Variance

The Mean Squares (*MS*) variance is computed in order to form the *F*-test ratio. To accomplish this task, the sum of squares (*SS*) was computed and divided by the degrees of freedom (*df*). Keep in mind this step is important to find the variance for the between groups factor and dividing that by the variance for the within group factor. These two variances were then computed by finding each sum of squares and dividing those sums of squares by their respective degrees of freedom (Bluman, 2010, p. 605).

Measures of Variation

Measures of variation refers to how spread apart the scores of the distribution are or how much the scores vary from each other. There are three major measures of variation, including the range, variance, and standard deviation (Bluman, 2010, p. 132).

Mode

The mode is the most frequently occurring score in a set of given numbers (Bluman, 2010, p. 119).

n

n represents the number of valid observations for the variable. In other words, *n* represents the set of data points (Field, 2009).

Nominal Scale

A nominal scale consists of a set of categories that have different names. Measurements on a nominal scale label and categorize observations, but do not make any quantitative distinctions between the observations (Bluman, 2010, p. 7).

Null Hypothesis

The null hypothesis, symbolized as H_0 , contradicts the alternative hypothesis and usually states that there is no difference between the population mean and some specified value. It is also referred to as the hypothesis of “no difference.” Rather than directly testing the alternative hypothesis (H_1) that there is a difference between the population mean and some specified value, the null hypothesis (H_0) is tested to determine there is no difference between the population mean and some specified value (Bluman, 2010, p. 399).

In hypothesis testing, the hope is to reject the null hypothesis to provide support for the alternative hypothesis. Rejection of the null hypothesis will strengthen the belief in the alternative hypothesis and increase the study’s confidence in the importance and utility of the broader theory from which the alternative hypothesis was derived. For this study, the null hypothesis was rejected when the significance level was less than or equal to .05; and the alternative hypothesis was accepted as true (Bluman, 2010, p. 399).

Ordinal Scale

An ordinal scale consists of a set of categories that are organized in an ordered sequence. Measurements on an ordinal scale rank observations in terms of size or magnitude (Bluman, 2010, p. 8).

Parameter

A parameter is a numeric value that describes the population. A parameter may be obtained from a single measurement, or it may be derived from a set of measurements from the population (Bluman, 2010, p. 114).

Population

A population is the set of all individuals of interest in the study (Bluman, 2010, p. 4).

Range

The range represents the difference between the highest and the lowest score in a distribution (Bluman, 2010, p. 132).

Sample

A sample is a set of individuals selected from the population, intended to represent the population of the study (Bluman, 2010, p. 4).

Source of Variance

Source of variance are batches of parameters that can be used as predictors and a way of testing hypothesis about the batches coefficients (Field, 2009, p. 361).

Standard Deviation (*SD*)

The standard deviation measures how far off all of the individuals in the distribution are from a standard, where the standard is the mean of the distribution (Bluman, 2010, p. 135).

Standard Error (*Std. Error*)

The standard error is the standard deviation of the sampling distribution of a statistic (Field, 2009, p. 794).

Statistic

A statistic is a numeric value that describes the sample. A statistic may be obtained from a single measurement, or it may be derived from a set of measurements from the sample (Bluman, 2010, p. 114).

Sum of Squares Deviations from the Mean (*SS*)

The Sum of Squares is the sum of the squared deviation scores (Field, 2009, p. 795).

***t*-Test—Independent samples *t*-test**

An independent samples *t*-test is used for comparing the means on an interval/ratio variable between two categories on a nominal/ordinal variable. A series of independent samples *t*-tests were conducted in this study to focus upon gender and its relationship to the individual determinants: attitude, subjective norm, general self-efficacy, motivational orientations, and the seven motivational orientations (Communication Improvement, Social Contact, Educational Preparation, Professional Advancement, Family Togetherness, Social Stimulation, and Cognitive Interest). Gender is a fixed dichotomous variable. In other words, gender is a nominal variable that has just two categories: male and female (Field, 2009, p. 334).

An independent samples *t*-test answers the question of whether the difference between means is statistically significant in the population of interest. To do this test, two variables from one population and sample are needed (Field, 2009, p. 781). The independent variable is nominal/ordinal and the dependent is interval/ratio. For the *t*-test in this study, gender is the independent variable and the dependent variables include attitude, subjective norm, general self-efficacy, motivational orientations, and the seven motivational orientations (Communication Improvement, Social Contact, Educational Preparation, Professional Advancement, Family Togetherness, Social Stimulation, and Cognitive Interest) (Bluman, 2010, p. 480).

A *t*-test is testing for differences among the means of two groups. *t*-tests are used to determine if the mean value from one group variable is the same or different from the mean variable of a second group variable. One of the assumptions of the *t*-test is that of equality of variances (Field, p. 781). Departure from this assumption can have severe consequences so the researcher first checked to see if this assumption has been met. The null hypothesis for this test was that the variances of the two groups are equal. The high significance level (greater than .05) suggested that there was no reason to doubt that this assumption has been met. If the significance level was less than or equal to .05 the null hypothesis was rejected (Bluman, 2010, p. 480).

To see the results of the *t*-test for the difference in the two means, the *p*-value for the test is used. The *p*-value is labeled as “*Sig.*” in the SPSS output (“*Sig.*” stands for significance levels). To find the correct “*Sig.*,” review the section of the “Independent Samples *t*-Tests Table” labeled “*t*-test for Equality of Means,” column labeled “*Sig.*”. This is the correct column to use, not the column labeled “*Sig.*” in the section of the “Levene’s Test for Equality of Variances” section. Finally, the “*Sig.*” value in the second row, the row labeled “Equal variances not assumed” is used because there is seldom a reason to think the amount of variation within each group will be the same (the *p*-value in the two rows is usually almost the same anyway) (Field, 2009, p. 336).

Variables

Variables are things that are measured, controlled, or manipulated in research. Variables differ in the roles they are given in the research and in the type of measures that can be applied to them (Bluman, 2010, p. 3).

Variance

The variance is the average of the squared differences of each score from the mean. To calculate the variance, the difference between each score and the mean is squared and then added together. This sum is then divided by the number of scores minus one. When the square root is taken of the variance, this new statistic is called the standard deviation. Since the variance represents the squared difference, the standard deviation represents the true differences and is therefore easier to interpret (Bluman, 2010, p. 135).

Within Groups Row

The “Within Groups” row represents what is often called error variance. This is the variance within the groups, variance that is not due to the independent variable. Within is shorthand for variance within groups—it measures how much points vary about their individual group mean. The basic idea is that if there is more between group variance than within group variance then you can tell the means are different (Bluman, 2010, p. 603).

Summary of Statistical Terms

The purpose of this glossary of statistical terms is to provide, in a single section, definitions of some of the common statistical terms that were used in this study. These common statistical terms are intended to assist in a uniform approach to better understand the data analyses which are referred to in this study. The glossary is not intended to be a study guide and is not a comprehensive list of all statistical terms.