

Motivation to Participate in Workplace Training Within the Intelligence Community and
Beyond: A Study of Contributing Factors

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Dissertation submitted to the faculty of the Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
In
Human Development

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February 21, 2013
Falls Church, VA

Keywords: Adult Participation, Motivation, Adult Learner, Training, Leadership Development,
Workplace, Government

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Abstract

Organizations can incur extensive costs to fund training typically available to employees free of charge. However, some employees do not participate. The body of research reviewed in adult education focused on relevant studies and models of contributing factors for participation in academia, the workplace, and the community. No studies were found that investigated the motivation of adults who participate and do not participate in the Intelligence Community (IC).

This study empirically examined the factors that influence adult participation in IC workplace training. The survey instrument was an adapted version of the Education Participation Scale-Alternate (EPS-A) and the Deterrents to Participation Scale-General (DPS-G) with seven open-ended questions to identify factors of adult participation and non-participation in the IC. Respondents (111) were participants and non-participants of leadership development training and consisted of African-American 75 (68%), Caucasian 21 (19%), Multi-Cultural 9 (8%), other 3 (3%), and 81 (75%) women and 27 (25%) men between the age of 21 and 80. Most respondents possessed a bachelor's degree or higher 78 (72%), worked in the IC for more than 10 years 36 (33%), and earned an annual family income of more than \$130,000 63 (60%). Statistically significant results showed that lack of course relevance and time constraints were perceived deterrents to participation. Communication improvement was identified as a perceived enabler for non-participants. Additional findings of this study revealed four factors—to meet new people, to achieve an occupational goal, to increase my job competence, and to expand my mind—that influenced participation in leadership development training in the IC.

Major themes such as leader or supervisor support, association, encouragement, selection, career advancement, personal growth, and availability of time were highlighted as enablers and deterrents of adult participation in workplace training. These findings enhance the current body of research in adult participation by providing information on participation in the IC that was previously not available in the literature and increase practitioners' knowledge of contributing factors that might affect the development of future leaders.

Dedication

This paper is dedicated to the memory of my loving grandparents Mr. Clarence E. Lewis Sr. & Mrs. Vernice Fitzgerald Lewis, James Overton, Jr. (brother), Mr. Clarence E. Lewis, Jr. (uncle), James Overton, Sr. (father), and Ronald Lee Sheppard, Sr. (stepfather).

Acknowledgements

First, and foremost I thank my Lord and Savior, Jesus Christ for giving the strength, knowledge, wisdom, and guidance needed to complete this critical chapter in my life. I could not have done it without God.

I would also like to thank my husband Sherrod Melvin Stanard for his continued support, encouragement, and most of all, patience during my journey. I love you and appreciate the unconditional love that you consistently give without expecting anything in return.

To my loving, mother Pearl Lewis Sheppard, I thank you from the bottom of my heart for taking care of the girls while I was conducting research, writing, editing or just taking a break. Your encouragement and reminders were what I needed. No matter what, you are always there when I need you. You are and have always been the wind beneath my wings!

I could never have gotten through this endeavor without the love and encouragement of my beautiful daughters. To my oldest daughter Starr Vernice, you are amazing. The late night talks, tears, and hugs gave me strength and opened my eyes to just how wise you are. I love you and look forward to the many wonderful plans God has for your life. To my next to the oldest daughter Simone Denise, you are a God sent angel who is wise beyond her years. Thank you for the many prayers and talks. You are a beautiful, smart, and amazing young girl. I knew you were special from the moment you were born. You have a wonderful future ahead of you. Finally, to my youngest baby girl Sherron Pearl, “wow” is the first word that comes to mind when I think of you. An angel from above is what you are. You are an old soul with special gifts that only time will reveal. You never seem to stop surprising us with your talents. I can only imagine the wonderful things that God also has in store for you. I love and cannot imagine my life without my girls.

I also thank the following family and friends who supported me in different, but equally important ways. Whether you provided encouraging words, helped me with editing, or kept my kids for me while I went to the library or edited my paper, I love and thank you for your support and willingness to go the extra mile when I needed you most. These individuals are Stephen Overton (loving brother), Robert D. Lewis, Claudette Overton, Patricia (Debra) Overton, Marnice Davenport Miller, Demetra Mason, Rachel McPhail Boyd, Petrina Shatteen, Mellissa Hawks, Wanda Williams, Reese Madsen, Gaynelle Brent Costner, Belinda LaValle, Shanita Adams, Ruby Marbley, Michele Eldridge, Melvis Barnett, Cynthia Riquelme, Tracy Allmond,

Carl McPherson, Ellen Biggs, Dawn Adams, Kathy Andrews, Maria Smith, Janeula Burt, Margaret Eggleston, Annette Miles, Nicole Johnson, and Torye Hawkins.

I could not have reached this point without the support of Lenora Peters Gant. As my former manager and mentor, your continued support encouraged me to remain focused and increased my resiliency. You gave me what I needed to push forward. You are an amazing woman and I am blessed to have you in my life. Finally, I have to thank my committee: Clare Klunk, Marcie Boucouvalas, Kenneth Hinson, Linda Morris, and Paul Renard. Thank you for caring. A special thank you to my committee chair, Clare Klunk, and research advisor, Kenneth Hinson. You were tough, but honest, and I appreciated it.

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CHAPTER I – INTRODUCTION

According to the National Center for Education Statistics (NCES, 2007), approximately 61,589 million adults between the age of 31 and 65 participated in adult education initiatives from 2001-2005. From 2005-2010, an estimated \$122 million in federal funding was allocated to fund higher education programs in the United States (U.S.) (NCES, 2008). Further analysis of federal funding for higher education shows an increase of approximately \$20 million in 2005, a decrease of \$2.2 million from 2005-2009, and an increase of \$11.5 million from 2009-2010 (NCES, 2012). In addition, the American Society for Training and Development *2011 State of the Industry Report* states that government, private, and community organizations in the U.S. spent \$126 billion on employee learning and development in 2010 (American Society for Training and Development, 2011). While the researcher was unable to find a reason for the variance in funding, the allocation of millions of dollars by the federal government and U.S. organizations may serve as an indicator of the importance of adult education. Though the cost of higher education can be expensive for both organizations and individuals, adults are participating in educational programs and seeking opportunities in abundance.

Financial programs such as the American Recovery and Reinvestment Act of 2009 and the Post-9/11 Veterans Educational Assistance Improvements Act of 2010 provide relief and play a critical role in motivating adult participation. The American Recovery and Reinvestment Act of 2009 is a continuation of the Higher Education Act of 1965 and includes Pell Grants, student financial aid, and Section 203 of the Education Technical Assistance Act (The White House, 2009). The Post-9/11 Veterans Educational Assistance Improvements Act of 2010 supports the Post-9/11 GI Bill and funds the Veterans Assistance Education Benefit Program for retired military personnel and their families (Post 9/11 Veterans Educational Assistance Improvements Act, 2010).

This study examines perceived factors of employee motivation to participate in leadership development training in the workplace of the Intelligence Community (IC). Research conducted for this study may help organizations address the training and development needs of employees. Training initiatives can provide job-related and personal developmental options for employees. Although organizations can incur a hefty cost to fund training provided free of

charge to the employees, some employees still do not participate. Therefore, what factors enable and deter employee motivation to participate in leadership development training in the IC?

Background of the Problem

Based upon the literature review, the study of adult participation extends across academia, the workplace, and the community. This researcher's analysis of contributing factors of participation in adult education yielded a variety of definitions for "adult education" and "formal adult education." Definitions of these terms have evolved over the years and provide an important foundation for understanding why adults participate in the workplace.

Adult Education

Adult education initiatives take place in a myriad of settings to include academia and the workplace. An analysis of adult participation terms in the literature resulted in several definitions. Johnstone and Rivera (1965) defined adult education as learning that allows students to complete class work independently and on a full or part-time basis. Boucouvalas (personal communication, September 15, 2000) referred to adult education as "a type of continuous movement, a profession, and an on-going desire of an adult to develop." Almost 40 years after the 1965 definition suggested by Johnstone and Rivera, the U.S. National Center for Education Statistics (NCES) (2007) defined adult education as "training for individuals age 16 and older involving basic skills, apprenticeships, work-related courses, personal interest courses, English as a Second Language (ESL), and part-time college or university programs." However, Kienzl (2008) defined adult education as learning that includes e-learning and actions led by an instructor in a setting that allows participants to earn credits or degrees. This study uses a combination of definitions by NCES (2007) and Kienzl (2008) to define adult education as formal instructor-led training to include face-to-face and distance learning.

Formal Adult Education

Over the years, variances in definitions of formal adult education have evolved. For instance, Griffith (1970) and Schroeder (1969) defined formal adult education as the implementation of standard operating procedures for learning in an academic setting. Coombs, Prosser, and Ahmed (1973) suggested that formal adult education involves the ability to earn

credits, certificates, or degrees in an educational setting internal and external to the workplace. Kienzl (2008) pointed out that formal adult education does not include reading manuals, attending conferences, and looking up information on the Internet.

Motivation

The motivation of adults has been studied in a variety of settings with different, but relevant outcomes. Two of the more well-known studies are “the Hawthorne effect” by Elton Mayo (1933) and “Maslow’s hierarchy of needs” by Abraham Maslow (1943). The studies conducted by Mayo and Maslow continue to guide further research in adult motivation (Campbell & Pritchard, 1976; Carlson, Bozeman, Kacmar, Wright, & McMahan, 2000; Goldhaber & Barnett, 1988; Hersey, 1989; Maslow, 1999; Mayo, 1933; Mitchell, 1974; Nason, 1998; Wilson & Madsen, 2008; Wlodkowski, 2008). Mitchell (1974) defined motivation as “a mental course of voluntary, goal-oriented events associated with the “arousal, direction, and persistence of an individual’s actions” (p. 81). Goldhaber and Barnett (1988) and Hersey (1989) defined motivation as the ability to change the behavior of an individual to achieve a specific result. To ensure that the definition of motivation embodies the intent of this study, a combination of descriptions by several authors (e.g., Mitchell, 1974; Goldhaber & Barnett, 1988; Hersey, 1989) are used to define motivation as an attempt to influence one’s behavior for the arousal of persistent, voluntary actions, which bring about a desired result.

Frymier (1974) stated that motivation in adult learning is the act of understanding and compelling an individual’s interest to influence him to react or respond in a certain way. While some link internal needs and values to motivation, there is no proof that either directly influences adult participation (Frymier, 1974). The definition provided by Campbell and Pritchard (1976) defined motivation as a decision that persuades adults to put forth a certain amount of effort within a specific period. Further, Keller (1987) suggested that motivation to participate is dependent upon an adult’s interest in a subject. Bohlin (1993) also pointed out that motivation increases when the course content addresses the needs of participants.

Wlodkowski’s (1985) assessment of the influence of attitude on adult motivation to participate focused on the effect of attitude on learning. Keller (1987) stated that participants’ motivation influences their interest in a subject and enhances the courses’ appeal. Wlodkowski (2008) added that needs foster desires, and when needs are met, motivation to participate increases.

Motivation to participate in adult education has been researched by many (Boshier, 1991; Courtney, 1992; Cross, 1981a; Frymier, 1974; Galbraith, 1990; Knowles, 1980; Maslow, 1999; Wlodkowski, 2008; Carlson, Bozeman, Kacmar, Wright, & McMahan, 2000) and the literature has evolved for over 90 years. While some studies produced similar outcomes, most have their own area of focus and provide opportunities for further research in adult motivation to participate in learning in the workplace.

Adult Participation

Since 1926, Marsh (1926) and other researchers (Blunt & Yang, 2002; Boshier, 1971; Cheng & Ho, 2001; Courtney, 1984; Houle, 1961; Kaplan, 1945; Brunner, Wilder, Kirchner, & Newberry, 1959; Knox & Videbeck, 1963; Komarovsky, 1946; LePine, LePine, & Jackson, 2004; Lorimer, 1931) began examining adult participation in academia. Researchers (e.g., Eggleston, 2007; Hudson, Bandar, Peter, & Bills, 2005; Hurtz & Williams, 2009; Kim, Collins, Hagedorn, Williamson, & Chapman, 2004; Nason, 1998; Norton, 2007) expanded the research in adult participation to include the workplace.

Past studies conducted between 1961 and 2008 (Anderson & Darkenwald, 1979; Boshier, 1973; Courtney, 1984; Darkenwald & Hayes, 1988; Darkenwald, Kim, & Stowe, 1998; Gaponova & Martynova, 2003; Houle, 1961; Wlodkowski, 2008) were selected for this study because of their focus on social relationships, instructional methods, internal needs, cognitive interests, prior participation, or professional advancement in adult participation. Houle's (1961) seminal research, described as strongly influencing later developments in adult participation research (Oxford, 2012), included interviews with 19 adults and suggested that an individual's desire to get ahead, need to accomplish personal goals, and desire for career advancement contribute to his/her seeking further education. In addition, the desire to seek knowledge, prior educational experiences, social interaction, perceptions of friends, individual personality traits, and temperament are contributing factors to pursuing adult education. Houle suggested that the strength of an individual's relationship with his/her parents, previous educational experiences, and the fulfillment of educational goals and objectives can influence adult participation. Knowles (1970) suggested that adults have a need to be self-directed learners. Boshier's studies in adult participation (1971, 1973), which stemmed from the typologies of Houle (1961), have prompted other researchers to investigate factors of adult participation in academia and the workplace.

Increasing individual's knowledge of contributing factors may help organizations address challenges that inhibit and encourage participation and cause instructors to incorporate adjustments in course accessibility and instructional design. Courtney (1984) suggested that individuals who participate in adult education in the workplace are motivated to do so. The problem is the lack of clarity regarding factors that motivate participation in workplace training. A review of studies in adult participation, adult education, and motivation yielded a number of outcomes discussed throughout this review.

The study of adult education is an undertaking that has provided information critical to understanding the many components that influence why and how adults learn. Boucouvalas (1983), Cross (1981a), and Wlodkowski (1985) pointed out that development and learning are associated with change. Other perspectives regarding adult education may explain why a different perspective surfaced that "draws equally to biology, psychology, and social science, as well as the humanities" (Levinson, 1986, p. 13). Additionally, Cross (1981a), Dannefer (1984), Elder (1995), and Tennant and Pogson (1995) suggested that age, changes in the central nervous system, serious illnesses, social norms, and cultural challenges can decrease adult participation.

Adult participation in academia. Adult participation research in academia (Anderson & Darkenwald, 1979; Blunt & Yang, 2002; Courtney, 1984; Darkenwald et al., 1998; Kim, Collins, Hagedorn, Williamson, & Chapman, 2004) focused on student enrollment and cites gender, ethnicity, socioeconomic status, age, and physical health as contributing factors. Adult participation studies in academia emphasize intrinsic and extrinsic factors, and the number of course enrollments. While data do a thorough job of identifying the demographics of participants, the question of why adults participate remains unclear.

Adult participation in the workplace. Research on participation in the workplace differs from results obtained from research focused on academia. An examination of participation in the workplace by Darkenwald and Valentine (1985) suggested that a lack of interest, personal problems, and self-esteem influence participation in the workplace. Nason's (1998) investigation of participation in the workplace cited course relevance, cognitive interest, increased competence, career advancement, and job requirements as factors that encourage individuals seeking higher education. Withnall (2006) suggested economic status and influence of family members as contributing factors in adult participation in the workplace. However, O'Donnell and Tobbell (2007) cited negative educational experiences, perceptions of

socioeconomic status, and lack of educational experiences as contributing factors. Additionally, Hurtz and Williams (2009) highlighted positive attitude towards learning, reactions to past participation, and perceived supportiveness of social and organizational environment as noteworthy factors of participation in the workplace. Overall, study findings yielded similar results regarding the influence of previous educational experiences, professional advancement, socioeconomic status, increase competence, influence of family members, and social and professional environments.

Contributing Factors of Adult Participation

Aslanian (2001), Aslanian and Brickell (1980), Cross (1981b), Galbraith (1990, 1991), Houle (1961, 1984), Knowles (1970, 1980, 1990), and Wlodkowski (1985, 2008) proposed that the motivational needs of adults are specific and require further investigation. According to adult participation studies in formal learning from 2001-2005, 53 percent of individuals age 16 to 64 participated in adult education (National Center for Education Statistics, 2005). Furthermore, Kienzl (2008) stated that adults with higher levels of education are more likely to participate in traditional (e.g., public speaking) rather than job-related and personal interest courses (Kienzl, 2008). Gaponova and Martynova (2003) suggested that the manner in which information is presented could also improve adult participation and the ability to learn.

Models help to deepen our understanding of adult participation and present several perspectives of contributing factors. Several models influenced research in adult participation: Miller's (1967) Force Field Analysis Model¹, Boshier's Congruency Model (1977)², Cross (1981b) Chain of Response (COR) Model³, Darkenwald and Merriam's (1982) Psychosocial Interaction Model, Cookson's (1986) Interdisciplinary, Sequential Specificity, Time Allocation, and Life Span (ISSTAL) Model, and Rubenson's (1977) Expectancy-Valence Model⁴. The Contributing Factors in Adult Participation Model (see Figure 1.1) contains the finding of adult participation studies selected by the researcher of the current study. The model depicts a summary of research findings with supporting elements (Boshier, 1971, 1973, 1977, 1991, 2005;

¹ Based on Lewin's (1947) Field Theory.

² A continuation of Houle's (1961) theory of adult participation.

³ An analysis of similar characteristics of Miller's (1967) Force Field Analysis Model, Boshier's Congruency Model (1977), Rubenson's (1977) Expectancy-Valence Model, and Cookson's (1986) Interdisciplinary, Sequential Specificity, Time Allocation, and Life Span (ISSTAL) Model.

⁴ Derived from the theory of Bergsten (1977).

Boshier & Collins, 1983; Cross, 1981b; Darkenwald & Scanlan, 1984; Darkenwald & Valentine, 1985; Hurtz & Williams, 2009; Kidd, 1973; Kline & Scialfa, 1996; O'Donnell & Tobbell, 2007;

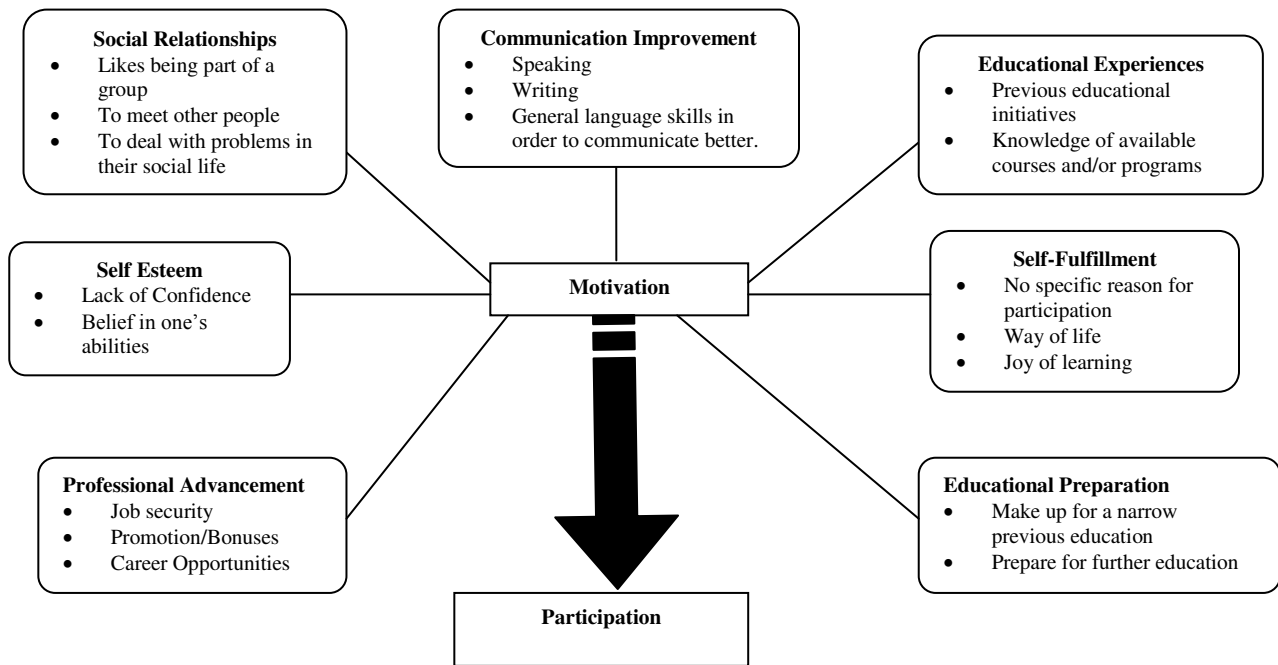


Figure 1.1. Framework of contributing factors in adult participation model. Illustration of factors that contribute to adult participation in formal adult education based on the results of previous studies. Copyright 2012 by Stephanie V. Overton Stanard.

Statement of the Problem

This study focuses on critical gaps in the literature such as the lack of diversity in sample populations. Studies on participation in the federal government lack information on the IC and, while the current study does not address the lack of training records, there is no centralized learning management system to store and management IC employee training data. Although opportunities for funding appear to abound in academia, community college, the workplace, and the community at large, some employees participate while others do not. This investigation explores the factors that contribute to adult participation in the workplace and specifically, leadership development training in the IC.

While an investigation of adult motivation to participate in federal government training was conducted by Eggleston (2007), Nason (1998), Norton (2007), and Towers (2003), no studies examining motivation to participate in IC workplace training were found by this

researcher. The IC's focus on Intelligence and National Security has prevented previous formal exploration of the IC workforce. An analysis of research in adult motivation to participate shows limited sample populations of Caucasian, middle class females with post-secondary education. Moreover, the number of participation studies focused on academia far outweighs those conducted in the workplace and specifically, the government. No studies were found to have been conducted in the IC.

The IC agencies selected for this examination are among the 16 federal agencies who report to the Director of National Intelligence (DNI). Since each IC agency operates independently, information on participation in leadership development training is maintained separately by each agency. Therefore, the researcher was unable to locate a centralized file or electronic database on participation or funding in leadership training within the IC. Given that little is known about training in the IC, further investigation may reveal that participation in the IC may not be as unique as some employees believe. This consideration may be important as a number of potential challenges in the IC may also apply to the government in general.

The Intelligence Community (IC)

The IC is a community of 17 federal government agencies with intelligence and national security related functions, and includes the Office of the Director of National Intelligence (ODNI), which reports to the Director of National Intelligence (DNI). The DNI serves as the head of the IC and is responsible for overseeing and directing implementation of the National Intelligence Program. This person is the principal advisor for intelligence matters regarding national security to the President of the United States, the National Security Council, and the Homeland Security Council (Office of the Director of National Intelligence, 2012). Since the creation of the ODNI in 2005, the IC has undergone dramatic shifts in senior leadership and redistribution of functions, funds, roles, and responsibilities. The IC's unique mission, variety of blue and white-collar jobs, and diverse population make it an ideal group to study in the larger context of adult education.

Purpose of the Study

The goal of this research is to add to the current body of knowledge by focusing on factors that contribute to adult motivation to participate in leadership development training in the

IC. The population samples obtained through this researcher's literature review were predominantly Caucasian, middle-class females with post-secondary education. To address the lack of diversity and majority of female participants in the research, the IC population sample for this study included diversity in gender, ethnicity, age, education, professions, and positions that mirror society as a whole. Little agreement exists on which factors motivate employees to pursue further education or to participate in workplace training. Contributing factors are cited as reasons for motivation to participate in adult education.

Due to the nature of the work performed within the IC, this researcher was unable to identify any research in the literature that addresses employee training within the IC. However, the increased focus on integration and collaboration within the IC has influenced agencies to allow for unclassified studies. This study builds upon the literature on contributing factors such as prior educational experiences, accessibility, self-development, career advancement, and cognitive interest of adult participation in the workplace and specifically the IC.

Research Questions

While much has been done in the area of adult participation, there is a lack of literature on the federal government with regard to the IC. Since the IC agencies selected for this study have a greater range of demographics than previous studies that focused on the workplace in general and on the federal government this untapped area provides information not readily available in the existing literature on adult participation. This gap in the literature is addressed through an investigation of contributing factors of employee motivation to participate in training in the workplace. Therefore, the questions guiding this inquiry are:

1. What perceived factors influence the decision of employees in the Intelligence Community who participate in government-sponsored leadership development training in the workplace?
2. What perceived factors influence the decision of employees in the Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?

Scope of the Study

Assumptions

Research conducted for this study investigated the factors that contribute to adult participation and non-participation in the IC. This study also explored strategies that can increase or decrease adult motivation to participate.

Delimitations

1. The population includes adults who work in the IC.
2. The group variables for this study include participants and non-participants, and 12 clusters or predictor variables.
3. The demographics for this study are limited to age, ethnicity, gender, education, family income, prior participation in Leadership Development courses, and years worked in the IC.

Significance of the Study

This research is essential to the field of adult education because it focuses on the motivation of a group of individuals not examined in past research. Moreover, obtaining information on adult motivation to participate in the IC could increase awareness of potential continued challenges and motivators of adult participation in the workplace as a whole. Daloz (1999) suggested that practitioners and organizations could begin to develop strategies to counter factors that decrease motivation, once they know what increases and decreases individuals motivation to participate. The results of this research can be used to further inform the field of adult education and increase awareness of practitioners and government organizations responsible for the design, development, and instruction of employee training.

Outline of the Research

This study is divided into five chapters. Chapter I covers the problem and includes an introduction, background of the problem, purpose of the study, and research questions+. Chapter I also describes the rationale and theoretical framework, the importance of the investigation, scope, and delimitations. Chapter II begins with an introduction and provides a review of the

related literature. Chapter II also contains an analysis of related studies including the methodology, instrumentation, statistical analysis, and rationale for why this study is needed. Chapter III describes the method, approach, and design of the study. This includes the population, sample size, instrumentation, procedures, data collection and recording, data analysis, assumptions, and limitations. Chapter IV presents the findings; an analysis of the results of the data collected, and reports evidence in response to the research questions including factual and interpretive analysis of the information. Chapter V contains conclusions and recommendations for further research.

Summary

Further research on adult participation in the workplace may provide information on why some employees do and do not participate in workplace training although there is no direct cost to the employee. Therefore, this investigation explores perceived factors that enable or hinder adult participation in the workplace. Ensuring adequate coverage of the various facets of adult participation and the identification of perceived factors requires further research and analysis. A review of related adult participation literature shows that more studies were conducted in academia than the workplace and the majority of respondents were Caucasian, middle-class females with prior education. This gap in the literature requires that greater effort be put forth to conduct a comprehensive review and analysis of contributing factors. Surveying a broader and diverse population that mirrors society in regard to females, males, different ethnicities, generations, and backgrounds provides a broad review and analysis of contributing factors.

CHAPTER II – REVIEW OF LITERATURE

A review of related research conducted for this investigation provides a foundation for understanding relevant theories, models, and studies in adult participation. Identifying factors that enable and hinder participation in adult education programs in the workplace may help organizations develop strategies to increase employee participation. This literature review offers a framework for the examination of contributing factors of adult participation.

Populations included academia, private organizations, federal and state governments, and within communities external and internal to the United States (U.S.). Respondents were female and male adults between the age of 17 and 80 with varied demographics. In an effort to develop a tool that could serve as a guide for this literature review and provide an overview of adult participation, this researcher created a chronology of adult participation studies (see Appendix M). This framework contains factors that enable and deter participation in the workplace, academia, and the community framework and can serve as a guide for individuals pursuing the area of adult education.

Chapter II provides a review and analysis of literature on adult participation, motivation, and education by some of the well-known researchers. Studies and research selected for the literature review were incorporated based of their focus on formal adult learning, adult participation, and adult motivation. Adult participation research and studies (Boshier, 1971, 1973, 1976, 1977, 1991; Darkenwald & Valentine, 1985; Houle, 1961; Kim & Merriam, 2004; Morstain & Smart, 1974; Nason, 1998; Rubenson, 1977) cited in the literature review were included because of their focus on formal adult learning. Research and studies in adult motivation focused on examinations conducted by well-known researchers (Bateman & Crant, 1993; Hurtz & Williams, 2009; LePine, LePine, & Jackson, 2004; Major, Turner, & Fletcher, 2006; Maslow, 1970; Mayo, 1933; Tolhurst, 2007; Wlodkowski, 1985, 2008). Investigations conducted by researchers (e.g., Clark, 1993b; Cross, 1981a, 1981b; Houle, 1961; Kidd, 1973; Kline & Scialfa, 1996; Knowles, 1989; Mezirow, 1978; Tennant & Pogson, 1995) in the field of adult education were also included.

Adult Participation

Although the findings of adult participation studies imply a variety of contributing factors, the influence of an individual's desires continues to surface as a key motivator. In his seminal study on adult participation, Houle (1961) conducted face-to-face interviews with 19 female and male respondents between 35 and 65 years of age with different marital status and ethnicities. Houle's findings prompted him to group respondents into three categories. First, the goal-oriented individual is typically in his mid-twenties and may participate to fulfill personal goals or to increase the opportunity for career advancement. Second, the activity-oriented individual varies in age, but typically participates sometime after their mid-twenties for reasons unrelated to the course or its content. This individual may also participate to avoid loneliness, meet new people, escape personal challenges, earn a degree or certificate, gain social acceptance, or to continue a family tradition. Third, the learning-oriented participant seeks knowledge for unknown reasons and may participate for the sake of learning or because he/she enjoys learning. Houle's research continues to provide a foundation for understanding the history of adult participation and can serve as a guide for other investigations.

An analysis of adult education research by Courtney (1992) suggested that "participation in adult education is not a phenomenon...but the extension of a more significant concept: participation in society at large, politically, economically, and socially" (p. 10). According to Merriam, Caffarella, and Baumgartner (2007), a comprehensive knowledge of adult education may help readers understand the psychological and sociological influence of adult participation. Merriam et al. also pointed out that non-participation is the result of barriers rather than a resistance to participation in adult education.

Adult Participation Models

Participation models provide visuals of potential influences and outcomes that may help readers understand the theories, processes, and factors of adult participation. Brownell and McInnes (1986) pointed out that models are helpful in three ways. First, they are less prone to biases. Second, they help decrease the inflation of correlations between measures of motivation and other self-analysis of findings. Third, they educate readers by further explaining the relationships between the model and other variables.

Models selected for this study focus on adult participation and contain their own set of unique characteristics to help readers grasp the contributing factors of adult participation. Models in adult participation analyzed for this review include the force field analysis model (Miller, 1967), which stemmed from Lewin's (1947) field theory, congruency model (Boshier, 1977), which is a continuation of Houle's (1961) theory of adult participation, and expectancy-valence model (Rubenson, 1977), which evolved from the theory of Bergsten (1977). Additionally, the psychosocial interaction model (Darkenwald, 1981) and chain of response model (Cross, 1981a) are part of the analysis.

Force Field Analysis Model

Miller's (1967) force field analysis is an integration of Lewin's (1947) conceptual model of the field theory and Maslow's (1954) hierarchy of needs. Based on Maslow's work, Lewin's field theory suggests that the environment in which people function drives their behavior. Furthermore, when individuals understand their environment, they can understand their behavior. Then and only then are individuals able to confront their behavior and redirect their actions. Miller's model indicates a linkage between socioeconomic status and adult education and uses vocation, family, citizenship, and self-development as evaluating factors.

The force field analysis model (see Figure 2.1) focuses on the negative and positive forces that influence adult motivation to participate. The arrows represent the forces, the width of the arrows represents the strength of the forces, and the horizontal line represents the level of motivation. The closer the lines are to the negative factors, the lower the level of motivation. The closer the line is to the positive force, the higher the level of motivation to participate. Building on the work of Maslow, Miller provided two assumptions regarding the reasons why individuals participate in adult education. First, low income, financially unstable individuals with little education tend to participate to satisfy survival needs. Second, educated, financially stable individuals may participate to fulfill personal developmental needs and obtain self-understanding.

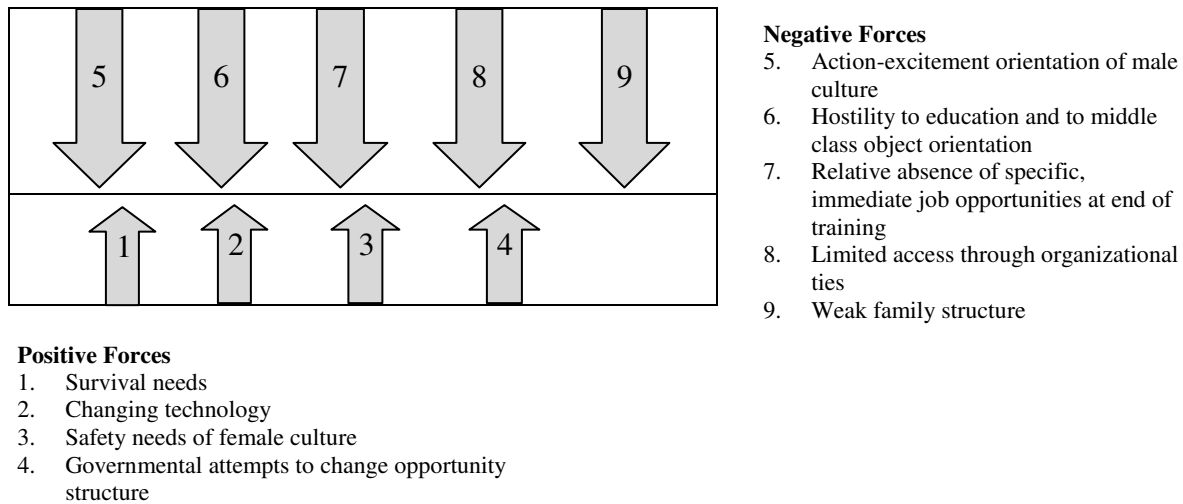


Figure 2.1. Force field analysis model illustrating positive and negative forces of adult participation. From “Learning in Adulthood,” by H.L. Miller, 1967, in S. B. Merriam and R. S. Caffarella, p. 21. Copyright 1999 by Jossey-Bass. Reprinted with permission.

Congruency Model

The congruency model (see Figure 2.2) developed by Roger Boshier (1977) stemmed from the typologies of Cyril Houle (1961). Boshier’s (1977) research in the U.S. resulted in his development of the congruency model. From 1974-1985, Boshier and others (Boshier & Collins, 1983, 1985; Boshier & Riddell, 1978; Morstain & Smart, 1974) continued to conduct extensive examinations of Houle’s typologies with regard to the congruency model. Boshier’s model depicts the influences of increased motivation, referred to as “Growth” or a lack of motivation, referred to as “Deficiency” combined with social, psychological, and environmental factors on an individual’s decision to “drop-out” or participate. The congruency model for adult participation helps readers understand the process of adult participation.

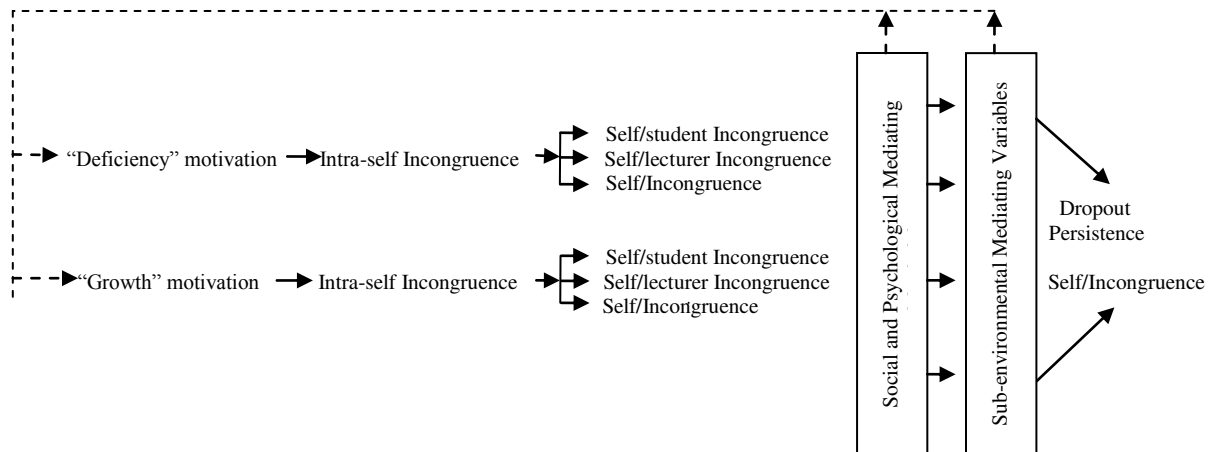


Figure 2.2. Congruency model of motivational factors in adult participation. From “Motivational orientations re-visited: Life-space motives and the Education Participation Scale,” by R. Boshier, 1977, *Adult Education Quarterly*, 27(2), p. 91. Copyright 1977 by American Association for Adult and Continuing Education. Reprinted with permission.

Expectancy-Valence Model

Rubenson’s (1977) expectancy-valence model (see Figure 2.3) stemmed from Bergsten’s (1977) examination of the adult study needs and barriers resulting from previous educational experiences that may influence participation in future adult education initiatives. As a result, Bergsten identified attitudes, preferences concerning adult education, life circumstances, and knowledge of adult education initiatives as factors of adult participation.

Using results of Bergsten’s expectancy-valence study, Rubenson developed an expectancy-valence model using the factors Bergsten stated that enable adult participation. These factors included expectations of the learner, environmental, perceptions, values, needs, and past-experiences. Accordingly, each factor is interrelated and if one is lacking, there is little motivation to participate. Merriam and Caffarella (1999) review of Rubenson’s expectancy-valence model implied that expectancy ties to expectations and valence is the negative or positive opinion the participant has of the learning experience. Kim and Merriam (2004) also pointed out that those individuals who participate and excel in adult education initiatives tend to have high self-esteem because they actively prepare and expect to succeed.

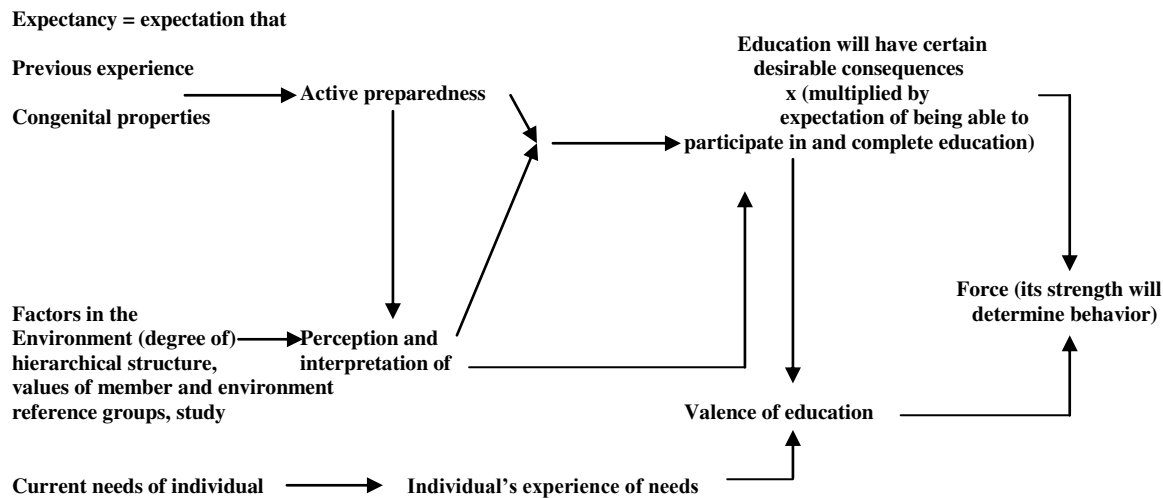


Figure 2.3. Expectancy-valence model illustrating recurrent factors that influence adult participation. From “Participation in recurrent education: A research review,” by K. Rubenson, 1977, *Paper presented at a meeting of the Organization for Economic Cooperation and Development in Paris France*. Reprinted with permission.

Psychosocial Interaction Model

Darckenwald’s (1981) psychosocial interaction model (see Figure 2.5) of participation in organized adult education focuses on “social-environmental forces, particularly socioeconomic status, not because individual traits or attitudes are unimportant, but because less is known about their influence on participation” (p. 142). The concept model goes from pre-adulthood to adulthood. The pre-adulthood phase begins with individual and family characteristics that can influence an adult’s participation and continues to previous educational experiences and socialization (amount, quality, values, and aspirations). The adulthood phase addresses the high, moderate, and low influence of the six components: socioeconomic status (SES), perceived value and utility of adult education, readiness to participate, participation stimuli, barriers, probability of participation, and learning press. Darckenwald and Merriam (1982) defined learning press as “the extent to which one’s total current environment requires or encourages further learning” (p. 142). Furthermore, participation stimuli are events or initiatives that encourage participation in an activity. The psychosocial interaction model of participation in organized adult education shows that each factor is dependent upon the previous element.

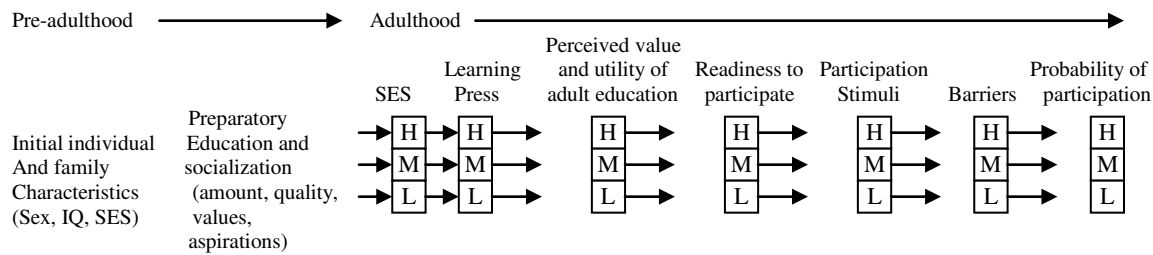


Figure 2.4. Psychosocial interaction model of participation in organized adult education with phases and potential characteristics of adult participants. From “Adult Education Foundations of Practice,” by G.G. Darkenwald, 1981, *Adult Education*, p. 143. Copyright 1981 by Pearson Education, Inc. Reprinted with permission.

Chain of Response (COR) Model

As with Maslow's (1970) hierarchy of needs, the relationship between needs, feelings of reward, and meeting an individual's immediate and lower needs prior to satisfying the higher needs are part of the COR model. Cross's (1981a) COR model resulted from her examination of similarities between the force field analysis, congruency, and expectancy-valence models. The COR model is based on the role of positive and negative influences in determining an individual's motivation to participate. The COR model (see Figure 2.4) highlights the difficulty of influencing individuals with low self-esteem to participate in adult education initiatives and the relationship between participation and potential outcomes. In a review of Cross's model, Merriam and Caffarella (1999) pointed out that participation can substantially influence an individual's attitude toward learning and his/her success as a participant in the learning experience.

The COR model begins with self-evaluation and ends with participation. Primary factors of the COR model are:

- A. Self -evaluation focuses on the self-esteem and confidence of the learner and “Persons who lack confidence in their own abilities...avoid putting themselves to the test and are unlikely to volunteer for learning which might present a test to their sense of self-esteem” (Cross, 1981a, p. 125). Learners with negative prior educational experiences may doubt their ability to succeed in future initiatives and are, therefore, less likely to participate or pursue future adult education initiatives.

- B. Attitude refers to the feelings and perceptions of the participant. Similar to self-evaluation, individuals with positive prior educational experiences are more likely to participate in future initiatives. Other factors include the feelings and attitudes of family members and friends, which can also influence a learner's perception and decision to participate.
- C. Goals and expectations imply that participation ties to individuals abilities to accomplish their goals through adult learning initiatives. Individuals with high self-esteem tend to be successful because they expect to succeed and are confident in their abilities.
- D. Life transitions refer to learners who participate in adult education initiatives to meet their own needs. For example, a woman or man who wants to open a daycare may seek learning opportunities that teach her/him the steps required to obtain a certification in childcare case issues.
- E. Opportunities and barriers focus on the effect of income, food, and shelter on adult participation. Another potential barrier is the location of the activity in relation to the location of the learner's home, transportation, etc. Opportunities for learning must be convenient and accessible by the learner. A course that is 50 miles from the home of a student with no car and is not accessible by public transportation creates an obstacle to attending the class. Therefore, the student may decide not to participate.
- F. Information refers to knowledge of learning opportunities. Adults knowledgeable of courses and programs are more likely to participate in learning initiatives. Cross (1981a) stated, "Without accurate information, point E in the model is weak because opportunities are not discovered and barriers loom large" (p. 127).

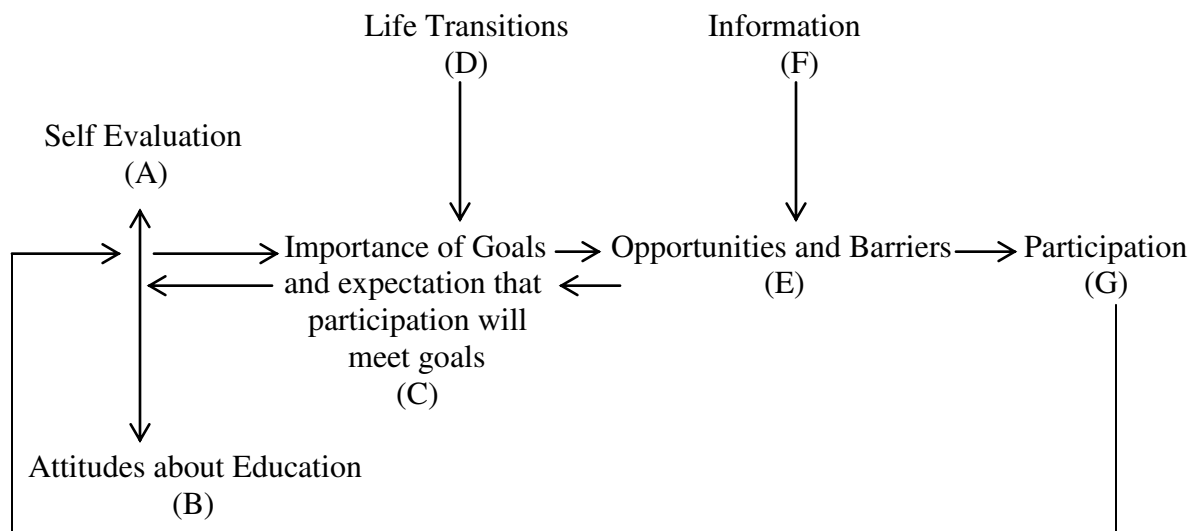


Figure 2.5. Chain of response model on the role of various factors in adult participation. From “Adults as learners: Increasing participation and facilitating learning,” by K.P. Cross, 1981b, p. 124. Copyright 1999 by John Wiley & Sons. Reprinted with permission.

Cookson’s ISSTAL Model

Cookson’s (1986) interdisciplinary, sequential specificity, time allocation, and life span (ISSTAL) model (see Figure 2.6) is a continuation of Smith’s (1980b) social participation model. The ISSTAL model focuses on learner characteristics. First, the interdisciplinary conceptual framework includes factors from education, psychology, and sociology disciplines. Second, sequential specificity includes factors that lead to participation. The third characteristics, time allocation and lifespan, suggests that adult education is one option for addressing social participation (Cookson, 1986). Although Cookson stated that his model is not complete, he referred to it as a “framework for theory and inquiry directed to understanding aspects of the human condition which influence an individual’s involvement in purposive learning initiatives” (p. 130). The ISSTAL model begins with sequential specificity, which refers to the positive influence of situational variables such as social background and needs on participation. Time allocation and life span is an individual’s view of adult participation and education. Cookson pointed out that “people who exhibit higher levels [of participation in adult education] in their thirties may be expected to display similarly higher levels in their forties, fifties, and sixties” (p. 132).

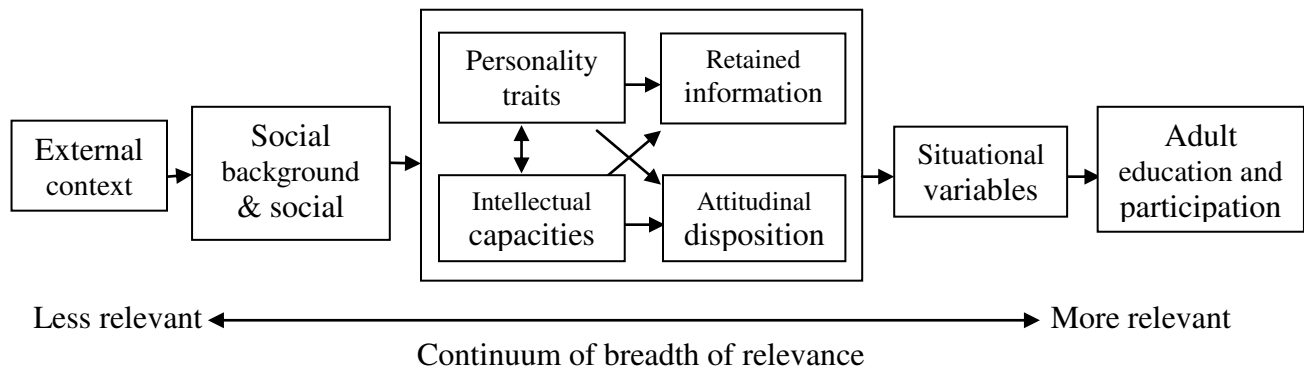


Figure 2.6. ISSTAL model illustrating the positive influence of adult participation factors. From “A framework for theory and research on adult education participation,” by P.S. Cookson, 1986, *Adult Education Quarterly*, 36(3), p. 131. Copyright 1986 by the American Association for Adult and Continuing Education. Reprinted with permission.

Adult participation models such as the force field analysis model (Miller, 1967), congruency model (Boshier, 1971), expectancy-valence model (Rubenson, 1977), psychosocial interaction model (Darkenwald, 1981), COR model (Cross, 1981a), and ISSTAL model (Cookson, 1986), complement the literature, serve as visual organizers, and guide further research and studies in adult participation. Models selected for the current study can also help readers understand adult participation theories and how they have evolved.

Contributing Factors of Adult Participation: Related Studies

Discerning factors that enable and deter adult participation in the workplace, academia, and the community may help researchers, educators, and course developers understand the influence of internal and external factors on participation. Understanding the influence of these factors may help to direct future research in adult participation. Studies conducted by Cheng and Ho (2001), Chen, Kim, Moon, & Merriam (2008), Henderson-King and Smith (2006), Maurer, Weiss, & Barbeite (2003), and Merriam and Caffarella (1999) were included in the literature review because of their focus on factors that enable adult participation.

Similar to the studies on factors that enable adult participation, researchers (e.g., Ahl, 2006; Alderman, 2004; Courtney, 1992; Dandeneau & Baldwin, 2009; Johnstone & Rivera, 1965; Valentine, 1997; Withnall, 2006) examined factors that deter adult participation. These studies were included in the literature review because their findings help to answer research

questions for the current study and provide different perspectives of contributing factors, an analysis of ongoing research and a context for which adult learning takes place. These studies also included surveys designed to identify factors that deter adult participation.

Enablers of Adult Participation

Findings from Merriam and Caffarella's (1999) literature review cited self-actualization, discovery of destiny, knowledge or acquisition of life as precious, a sense of accomplishment, psychological needs, refreshing of the consciousness, wonder of life, control of impulses, extensions of life problems, and learning to choose discriminatively as enablers of adult participation. Cheng and Ho (2001) also pointed out that motivation to participate stems from the belief that adult education initiatives can increase an individual's opportunities for career advancement.

Maurer, Weiss, and Barbeite (2003) used random digit telephone dialing to administer a longitudinal structural survey to 9,462 households. The study investigated direct and indirect relationships between participation and individual, situational, and motivational factors with age, prior participation, anxiety, perceived intelligence, learned qualities, declining mind, career insight, perceived need, job involvement, intrinsic motivation, and attitude variables. Responses received from 1,395 (15%) employees included 432 (54%) females and 368 (46%) males with an average age of 53. Furthermore, 683 (85%) respondents were Caucasian, 57 (7%) African-American, 18 (2%) Hispanic, 17 (2%) Native American, 11 (1%) Asian, and 14 (1%) other. The majority of respondents were married 514 (64%), 278 (35%) attended some college/technical school, and 209 (26%) were college graduates. Statistically significant findings ($p < .05$) cited prior experiences (29%), intentions (30%), and perceived intelligence (38%) as factors that enabled adult participation.

A study by Henderson-King and Smith (2006) used the Meaning of Education Survey to analyze the meaning of education, academic motivation, and demographics in adult participation. Responses from 653 undergraduate students included 481 (74%) females and 166 (26%) males with an average age of 19. Results also showed that 575 (88%) respondents were Caucasian females. Statistically significant results ($p < .05$) cited career progression, independence, direction, learning, self-development, and next step in life as enablers of adult participation.

In a review of 93 qualitative studies in adult education journals from 1980-2006, Chen et al. (2008) examined the participation of older adults, retired or beyond an age where they were able to work, and stated that older adults have both the capacity and motivation to learn. Using content analysis, they identified common themes as key factors and enablers of adult participation as older adults (retired), ethnicity (Caucasian), sex (men and women), social class (middle-to-upper), and ability (physical mobility, cognitive, and sensory abilities).

Deterrents to Adult Participation

The identification of factors that deter adult participation may provide information for the development of strategies for moving non-participants to participants. According to studies by Johnson and Rivera (1965) and Valentine (1997), cost and the inability to obtain funding may deter participation in adult education courses. Statistically significant results ($p < .05$) reported by Johnson and Rivera showed that 43% of participants enrolled in college courses cited cost and having to fund educational expenses as deterrents to participation. Similarly, Valentine's (1997) study with the United Nations Educational, Scientific, and Cultural Organization (UNESCO) stated that 58% of respondents (33% in job related and 25% in non-job related courses) cited cost as a deterrent to participation in adult education courses.

Following a review of adult participation research and studies, Courtney (1992) pointed out that participation determines an individual's perception of social and occupational opportunities. According to Alderman (2004), deterrents to adult participation included a lack of effort and goals, avoidance, confidence as a learner, social responsibilities, lack of time, motivation, and values of family and friends. A qualitative review of motivation to participate conducted by Withnall (2006) included 10 focus groups with 69 (70%) females and 29 (30%) males between the age of 50 and 74. Participants ranged from five to 22 per focus group with an average of nine adults each session. Withnall's findings cited life events, opportunities to participate, access to education, gender, marital status, economic status, and pressure from family as perceived deterrents.

Ahl (2006) highlighted that "dispositional, situational, and institutional or structural barriers may decrease an individual's motivation to learn" (p. 394). Dispositional factors refer to a lack of self-confidence or self-efficacy, previous negative educational experiences, and social environments that do not see the importance of education. Ahl advised that the presence of

institutional or structural barriers were the result of a lack of instruction designed for the adult learner, a work environment that does not foster adult education, lack of financial support, childcare challenges, availability, accessibility, future job opportunities, and social factors. Institutional or structural barriers involve the inability to allocate study or class time and the lack of clear expectations. A review of motivation in adult development conducted by Dandeneau and Baldwin (2009) examined the influence of factors of motivation to learn and cited social rejection and low self-esteem as deterrents of adult motivation to participate.

Adult Participation in Academia

Studies, models, and research on adult participation in academia continue to evolve and may be applicable in the workplace and the community. Fujita-Starck's (1996) examination of the Education Participation Scale-Alternate (EPS-A) factors included 1,142 continuing education students enrolled in non-credit college courses grouped by curricula. Findings yielded 1,004 responses from 582 (58%) Asian and 302 (30%) Caucasian participants. The average age was 40 and 884 (88%) of respondents were women with some level of college. Statistically significant findings ($p < .01$) confirmed communication improvement, social contact, professional advancement, family togetherness, social stimulation, and cognitive interest as enablers of adult participation in academia.

Aslanian's (2001) research in postsecondary education used data from the College Board's survey on what motivates adults to who return to school and patterns of learning to examine when adults enter or return to school. This review of graduate and non-credit courses included telephone interviews with 1,500 respondents 25 years of age and older. Aslanian proposed that adult motivation to participate was the result of life transitions and events within a specific time of individuals life. Statistically significant results ($p < .05$) showed that 85% of respondents identified career advancement and transition as factors that enable adult participation. Additionally, 71% of respondents suggested life events such as lay-offs, early-outs, and challenges with adapting to new technology as factors that may deter adult participation. Aslanian's review also recognized the types of programs, instructors, courses, availability, location, and program length as contributing factors and stated that educators should keep in mind that factors of adult participation could vary by culture.

Using a revised version of the 22-item adult attitude toward continuing education scale (RAACES), Blunt and Yang (2002) examined the attitude of participants in adult education programs. Initially, 275 adults participated in a review of 88 pre-determined items on adult attitudes toward a psychological object and the situation in which they encountered the object. During the final trial, 458 respondents completed a five-item participant behavior index (PBI) over a period of 12-months. Respondents included 215 (47%) females and 243 (53%) males, with an average age of 35, and at least 13 years of previous education. Statistically significant findings ($p < .05$) cited enjoyment of learning (37%), importance of adult education (39%), and intrinsic value of adult education (36%) as enablers of adult participation. Additionally, respondents cited recent and annual participation, active learning, and using adult education fees for tax deductions as enablers to adult participation.

Adult Participation in the Workplace

Identifying why adults participate and do not participate in adult education courses in the workplace can provide insight needed to address challenges in motivating employee participation in critical leadership development courses. Studies conducted by Eggleston (2007); Nason (1998); Norton (2007); and Towers (2003) used a combination of demographic questions, the Education Participation Scale-Alternate (EPS-A), and the Deterrents to Participation-General (DPS-G) to examine perceived factors of adult participation and non-participation in the workplace with no monetary cost to employees.

A study of participation in government-sponsored training in the workplace conducted by Nason (1998) combined the EPS-A, Deterrents to Participation Scale-General (DPS-G), and pathways to the future surveys to examine the motivation of employees who participate and do not participate in federal Emergency Management Agency (FEMA) training. A sample population of 167 supervisors and managers were asked to rate the level of influence factors had on their decision to participate or not participate. With a total of 42 (28%) responses, 9 (22%) were female and 31 (77%) respondents were male. The average age was 55, 25 (37%) possessed bachelor's degrees, 12 (30%) master's degrees, and 32 (80%) had participated in workplace training. Nason added that responses received from 42 (29%) participants were insufficient to serve as a representation of the larger population. Demographics included age, gender, education

level, and total family income. Results implied that the older the participant, the greater the importance of participation. Table 2.1 contains statistically significant findings ($p < .05$) for FEMA employees.

Table 2.1

Top Motivating Factors for FEMA Employees

Reason for Participation	Reason for Non-Participation
To increase my competence on the job and to secure career advancement	The course was scheduled at an inconvenient time
To seek knowledge for its own sake	My participation would interfere with my personal needs
To supplement a narrow previous education	I didn't think the course would meet my needs
To gain insight into human relationships	Participation would interfere with my job responsibilities
To acquire new knowledge that will help me with other educational courses	I didn't know about course availability
To become a more effective citizen	I don't have time to participate (cited by women)
To prepare for service to the community	Lack of confidence in the respondent's beliefs about their preparedness for the training

Note. Adapted from "Top Motivating Participation Factors for FEMA Employees," by A. Nason, 1998, Unpublished Dissertation, Blacksburg, VA: Virginia Polytechnic State University.

Towers (2003) used a quantitative research approach to distribute the survey and rank-order responses from 108 public healthcare employees. Respondents included 92 (85%) females and 16 (15%) males between the ages of 50 and 59 38 (34%) and 40 and 49 28 (26%). Additionally, 92 (85%) were Caucasian, 9 (8%) Asian, and 8 (7%) African-American, with 54 (50%) respondents possessing master's degrees and 43 (40%) bachelor's degrees. Statistically significant findings ($p < .05$) cited EPS-A factors: cognitive interest (75%), community service (51%), professional advancement (70%), external expectations (51%), social stimulation (75%),

and social contact (75%) as enablers of adult participation. DPS-G factors included cost (82%), lack of course relevance (77%), lack of confidence (78%), time constraints and personal priority factors (65%), lack of encouragement (31%), and personal problems (58%).

Eggleston (2007) used a modified version of the DPS-G and three open-ended questions to examine participation in formal adult education in the workplace. The total population consisted of 2,183 employees with 833 (38%) mid-to-upper-level professional, technical, executive, administrative, and managerial respondents. The average age was 50, with 408 (60%) respondents between the age of 50 and 59. Additionally, 266 (37%) of respondents were females and 448 (63%) were males with college degrees. A considerable number of participants were Caucasian 633 (76%) and the remainder were 96 (14%) African-American, 38 (5%) Hispanic, 18 (3%) Asian/Pacific Islanders, 8 (1%) Native American, and 12 (2%) other. Although there were no statistically significant findings ($p < .05$) for the DPS-G items, comments from responses to open-ended questions suggested time, work, personal matters, and money as potential deterrents. Enablers of adult participation included access, finances, sponsorship, other people, and self.

In a separate study, Norton (2007) conducted a qualitative review of adult participation and non-participation in mandatory government-sponsored training of elected government officials within the State of Kansas. A survey to include demographic questions, the EPS-A, and DPS-G was administered to a total population of 456 employees with a response rate of 202 (44%). The average age of participants was 59 and similar to Eggleston's (2007) study, only 59 (13%) were female, and the majority of respondents were male 397 (87%). Additionally, 237 (52%) of respondents had participated in the training. Statistically significant findings ($p < .05$) highlighted a lack of knowledge, limited understanding of requirements, and questions on availability of the training as deterrents to participation. Findings cited as deterrents were lack of course relevance (85%), time constraints (84%), cost (75%), personal problems (74%), lack of personal priorities (79%), and lack of confidence (85%). In addition to validating the EPS-A as a reliable instrument, the reliability coefficient (alpha) indicated that being a public servant (87%), personal and professional development (88%), networking (87%), escape/stimulation (83%), external expectations (83%), and cognitive interest (64%) may enable adult participation in the workplace. Norton concluded that adults who participate in one course are more likely to participate in future courses.

Adult Motivation

The study of adult motivation has been an area of interest in both academia and the workplace. Understanding the motivation of adults may increase practitioners' knowledge of the differences in adult motivation that can affect the decision to participate or not participate in adult education initiatives for the development of strategies to increase participation. The seminal studies and theories on motivation as the attribution theory (Heider, 1958), hierarchy of needs (Maslow, 1954, 1970), and the Hawthorne effect (Mayo, 1933) provide clarity by helping readers understand the concept of adult motivation in regard to participation in the workplace.

Attribution Theory

Attribution theory may explain how individuals' decisions can affect their participation in adult education programs. Attribution theory was developed by Heider (1958) and continued by Weiner (1985) in his book *The Psychology of Interpersonal Relations*. According to Weiner, attribution theory focuses on decisions that increase an individual's motivation to "act." Weiner proposed that adults who believe that their success is the result of his/her own abilities and attribute their deficiencies to their own lack of effort, would pursue challenging tasks and persevere through obstacles. This is because they believe that they are in control and can therefore determine the outcome of their efforts. However, individuals lacking confidence in their abilities and believe that situational factors play a key role in their success are potentially more likely to quit when challenges arise.

Maslow's Hierarchy of Needs

Maslow (1954, 1970) introduced the theory of motivation in his 1943 research paper *A Theory of Human Motivation*. Maslow's original theory of motivation evolved from his observations, research on human motivation, and examination of the physiological, safety, social, self-esteem, and self-actualization needs of adults. Maslow presented his hierarchy of needs in the shape of a pyramid to show the order, increasing importance, and dependency of the higher motivational needs. His theory builds upon the satisfaction of individual needs with "deficiency" and "growth" needs as the foundation. Maslow pointed out that once the basic physiological needs are satisfied the next level of lower needs must be satisfied prior to meeting the higher needs. Maslow cautions that because motivational needs vary, some individuals may not

completely reach the top of the hierarchy. Maslow also emphasized that as needs are continuously met, the motivation of an individual increases. In 1979, Maslow redefined self-actualization to include a focus on cognitive and aesthetic needs. Specifically, he incorporated 15 characteristics and seven behaviors associated with self-actualization, focusing on the importance of individuals reaching their potential and achieving their personal goals. More than 40 years later, Wilson and Madsen (2008) pointed out that Maslow's hierarchy of needs continues to influence perceptions surrounding motivation and provides a basis for understanding adult motivation to participate.

The Hawthorne Effect

Between 1924 and 1933, Elton Mayo (1933) investigated the effects of physical, environmental, and psychological influences on the work environment of a group of women at the Western Electric Company. Mayo's research attempted to discover the ideal working conditions required to increase productivity. Therefore, investigators manipulated work hours, lighting, and room temperature to determine the effect on productivity. Keeping very careful records of their observations, investigators documented employee reactions to changes in work conditions for 12 weeks. Despite changes in work conditions, participants reported less fatigue and effort while productivity continued and in some instances increased. Additionally, there was no change in productivity when investigators returned work conditions to their original state. Mayo proposed that the greatest motivator was the attention the women received during the investigation, which created a sense of belonging that made the women feel important, increased morale, altered their view of work, and created a better work environment.

Adult Motivation to Participate

Understanding the influence of motivation on adult participation is critical in the identification of contributing factors in adult participation. An examination of motivation research indicates that prior to the 1970's psychologists such as Clark Hull (1951), Abraham Maslow (1954), Kenneth Spence (1958), and John Watson (1924) focused on the psychology of motivation and referred to drive and instinct as the arousal, direction, and persistence of human behavior. Research suggests that self-directed adults are naturally motivated to participate (Knowles, 1970). Frymier (1974) added that while needs and values can be tied to motivation, it

had not been proven that there is a direct effect on an adult's ability to learn. Furthermore, Campbell and Pritchard (1976) referred to motivation as "the determinants of...the choice to initiate effort on a certain task, to expend a certain amount of effort and...to persist in expending effort over a period of time" (p. 63).

Research conducted in the 1980s and 1990s focused on motivation as a potential vehicle for increased productivity and changing adults' attitudes. Keller (1987) stated that intrinsic motivation increases an adult's interest in a subject and in learning initiatives. Goldhaber & Barnett (1988) referred to motivation as instinct, while Hersey (1989) defined motivation as the ability to influence behavior and achieve a specific result. Similar to the motivation of adults in the workplace, research on motivation and the adult learner used the terms "motives" and "drives" to explain behavior (Bohlin, 1993; Kanwal, 1990; Knowles, 1989; Kytte, 2004; Maslow, 1970, 1999; Weiner, 2006; Wlodkowski, 2008). Two assumptions by Knowles (1970, 1980, 1989) that help to increase our understanding of adult motivation to participate included:

Adults have a self-concept of being responsible for their own lives.... [and] develop a deep psychological need to be seen and treated by others as being capable of self-direction and adults become ready to learn those things they need to know or...to cope effectively with their real-life situations (1989, p. 83-84).

According to Kanwal (1990), motivation is "an important determinant in human behavior and its understanding is essential to evaluate behavior in an objective manner" (pp. 19). Bohlin (1993) also pointed out that an adult's curiosity, involvement, and fulfillment directly influence participation. Researchers (Aslanian & Brickell, 1980; Cross, 1981b, 1990, 1991; Houle, 1984; Knowles, 1980; Wlodkowski, 2008) suggested that adult motivation in learning situations is specific to the individual and the environment. Furthermore, needs are the direct result of life experiences, transitions in life, and learned behaviors (Bohlin, 1993; Cross, 1981b; Knowles, 1980; Wlodkowski, 1985). Merriam and Caffarella (1999) also proposed that "learning is understood as the process of using a prior interpretation to construe a new or a revised interpretation of the meaning of one's experience in order to guide future action" (p. 162).

Maslow's (1954, 1970) hierarchy of needs referred to the philosophical-theological tradition of motivation as humanistic psychology. Although his original research was conducted in 1954, other researchers (e.g., Benson & Dundis, 2003; Linstead, 2000; Noe, 2005; Rouse, 2004; Wilson & Madsen, 2008) continued to refer to Maslow as the leader in the hierarchy-of-

needs theory that has continued to influence views of motivation. Carlson et al. (2000) suggested that adult motivation to learn includes active participation in the learning activity, the acquisition of knowledge, and respect for the learning experience. As highlighted by Benson and Dundis, motivation helps guide the field and is critical to understanding why adults participate. Factors that motivate adults who participate and who do not participate in adult education play a key role in understanding the influence of adult participation.

Motivation Studies

The factors that motivate adults who participate and do not participate in adult education play a key role in understanding the influences of adult participation. In an examination of the relationship between stress and motivation to learn on an adult's participation, LePine et al. (2004) surveyed 696 learners taking college level courses. Respondents included 369 (53%) females and 327 (47%) males. The average age of participants was 21, and 571 (82%) were Caucasian. Statistically significant results ($p > .05$) indicated conscientiousness (30%), challenge stress (16%), hindrance stress (15%), and emotional stability (30%) as factors that enable adult motivation to participate in academia.

In an attempt to identify the various levels of motivation associated with adult learners, Major, Turner, and Fletcher (2006) conducted a study to examine the relationship between personality traits and adult motivation to learn. Using a shortened version of the proactive personality scale by Bateman and Crant (1993) and a 17-item scale to measure motivation to learn by Noe and Wilk (1993), Major et al. developed a web-based questionnaire to measure the influence of proactive personality, neuroticism, extraversion, openness, agreeableness, and conscientiousness on an adult's motivation to participate. The 368 respondents primarily included 217 (59%) females and 151 (41%) males between the age of 35 and 55. Respondents were Caucasian 346 (94%), 147 (40%) possessed bachelor's degrees, and 74 (20%) had earned advanced degrees. Statistically significant results ($p < .05$) indicated extraversion, openness, and conscientiousness as factors of adult motivation to participate.

An examination of contributing factors conducted by Hurtz and Williams (2009) used the theory of reasoned action (TRA) model to conduct an analysis of participation in voluntary employee development training in the workplace. The study focused on the influence of participation in previous adult education initiatives, availability, voluntary actions, reactions to

past events, supportiveness of work environments, attitudes toward future initiatives, subjective norms for future events, behaviors of colleagues, desires to participate, relationship to work, job involvement, and learning goal orientation. Responses from 427 participants included 205 (48%) females and 226 (53%) males from colleges, private, and government organizations in the Northwest and West United States. Most respondents were full-time Caucasian 363 (85%) professionals between 41 to 48 years of age. Statistically significant findings ($p < .05$) of the second trial show that respondents cited attitude toward participation (83%), prior participation (93%), supportiveness of a previous work environment (85%), and learning goal orientation (95%) as motivating factors.

Adult Education

Adult education includes, but is not limited to biological factors, psychological factors, development and learning, and transformational learning. These aspects play a key role in the motivation and participation or non-participation of adults and are often not considered or understood by those outside of academia. Since these factors are common to adult learners, understanding the potential influence on adult participants may allow for additional considerations from individuals responsible for course design and development.

Biological Factors

The identification of potential deterrents to adult learning continues to evolve (Cross, 1981a; Kidd, 1973; Kline & Scialfa, 1996; Knowles, 1989; Wlodkowski, 2008). In examining the effects of age on adult education experiences, Kidd concluded that age was not a significant factor until age 75, because this is when a decline in physical health is likely to occur. Additional factors included the loss of hearing, the ability to memorize information, and vision (Cross, 1981b). In these instances, researchers recommended a hearing device and extended class time for adult learners (Cross, 1981a, 1981b; Kline & Scialfa, 1996; Wlodkowski, 2008). Kline and Scialfa also referred to vision as a physical deterrent to learning in adulthood and one of the most notable challenges to adult participation. An adult's ability to read small lettering can decline between the age of 40 and 50 and result from changes in eyesight that decreases visibility (Cross, 1981b). Eyeglasses or increased light may serve as a potential remedy to maximize the learning experience.

Psychological Factors

The biological and psychological development of adults refers to the influence of factors such as age, psychological makeup, e.g., values, beliefs, opinions, self-images, and social and cultural forces on learning (Tennant & Pogson, 1995). During the 1970's, 1980's, 1990's, and 2000's, interest in the affect of social and cultural forces of adult participation on adult development resulted in much research on the influence of gender, race, and social class on adult development (Dannefer, 1984; Elder, 1995; Tennant & Pogson, 1995). Specifically, Dannefer's (1984) review of social research on changes in adulthood identified two trends. First, the "compression" effect, which focuses on decreasing the time it takes to transition to adulthood. Second was uniformity among cohorts during transitions and life events. Tennant and Pogson (1995) suggested that self-development involves the ability to resist social and economic influences, educational opportunities should reflect on and respond to changes in demographics, and knowledge and skill requirements, and learning and development must consider the influence of democracy, equity, and external constraints.

Development and Learning

Although an adult may have the desire to participate, other factors can play a critical role in his ability to do so. In addition to the biological and psychological implications, adult learning is influenced by developmental factors and life experiences (Aslanian & Brickell, 1980), which may influence the decision to participate or not participate. According to Boucouvalas and Krupp (1991), the concepts of development and learning are associated with psychological changes in adults. While some believe that older adults learn at a slower pace than younger adults Knowles (1989) pointed out that adult learners age 40 to 50 are able to better control the pace of their learning situation, and can therefore, learn at the same pace as individuals between 20 and 30 years of age. Wlodkowski (2008) added that while older adults have voiced concerns over feeling cognitively inferior and less confident in their ability to learn in comparison to their younger adult classmates, it has not been verified that age increases or decreases an adult's motivation to participate

Transformational Learning

The education of adults involves learning and development through a variety of methods. Transformational learning is one of the theories that may help readers understand how life events can influence changes in thought patterns and actions. According to Mezirow (1997), transformational learning provides insight into how adults comprehend and create meaning during the learning experience. It is also an adult's interpretation and rationale of life experiences. Research on adult motivation to participate (Clark, 1993b) suggested that transformational learning causes individuals to re-think what they are doing. It changes an individual's worldview through a critical reflection of what was learned from family, community, and personal experiences. In addition, the attributes of andragogy and self-directed learning involve transformational learning, which focuses on the critical reflection of life experiences by the adult learner. Transformational learning in relation to the current study is about how changes in perspectives or consciousness can influence adult participation. Life experiences and other factors may help this researcher answer the research questions for the current study through the identification of factors that may influence an adult's participation and non-participation

Summary

The literature review underscores that reasons for individual participation may depend on a variety of contributing factors. The research examined indicates that some factors such as age, race, gender, career advancement, prior education experiences, and self-development continue to surface in adult participation studies (Boshier, 1991; Chen, Kim, Moon, & Merriam, 2008; Henderson-King & Smith, 2006; Maurer, Weiss, & Barbeite, 2003; Nason, 1998; O'Donnell & Tobbell, 2007). The studies included in this literature review provide empirical evidence and some agreement that career advancement, prior educational experiences, and cognitive interest were motivators to participate in workplace training for leadership development. There also appears to be agreement that money, time, and family can be deterrents to adult participation. When analyzing the results of the various studies, it became clear to this researcher that an

employee's decision to participate could vary and depend on individual life experiences (Bohlin, 1993; Hurtz & Williams, 2009; Kim & Merriam, 2005; Knowles, 1980; Nason, 1998; Withnall, 2006).

Studies included in this review focus on populations in academia, community college, private industry, and state and federal government. The various studies and models examined were instrumental in guiding the framework for this study. Specifically, research on motivation provides a broad overview of past studies that helped shape current views of motivation and the adult learner. Following a review of the research on adult learners and participation, questions regarding factors that motivate participation or non-participation in adult education initiatives surfaced.

An analysis of similar studies revealed a number of common themes regarding demographics. Specifically, the majority of the participants were married, white-collar workers, middle- to- upper class, employed full-time, Caucasian women with prior education. These findings are supported by the literature review conducted by Merriam and Caffarella (1999), which adds that participants of adult participation studies were mostly Caucasian, financially stable, educated, and middle class. Wlodkowski (2008) suggested that women outnumber men in participation studies because there are more women- than- men over the age of 25 in the U.S.; education may be considered a conduit to achieving personal and career goals. Additionally, a shift from the traditional role, expectations for women, and increase in family support provide additional motivators for women to participate in adult educational initiatives. While motivation may influence an employee's desire to participate in adult education, biological, psychological, and situational factors can also influence adult participation and non-participation.

This research review confirms the paucity of literature on contributing factors of participation in workplace or professional development training in the federal government and the IC. This literature review focused on an analysis of perceived factors that increase and decrease participation in government-sponsored leadership development training in the IC. Findings show that deterrents such as vision, hearing, and cognitive ability can affect the participation of adults. While vision can deter adults between the ages of 40 to 90, a decrease in hearing and cognitive ability may not occur until age 75 to 90. Other potential factors included values, prior education, socioeconomic status, and self-esteem.

In an attempt to incorporate a variety of relevant research on adult participation, this review includes studies within and outside of the U.S. This review is limited to participation studies and models germane to formal adult education initiatives and does not include informal, e-learning, self-directed, or blended learning. A review of participation studies, and the chronology of related adult participation studies (see Appendix M) indicated that the majority of the researchers used a quantitative survey approach. Information in Appendix M includes survey information and findings of participation studies in formal adult education initiatives from 1961 to 2009. Participants ranged from 18 to 65 years of age in both quantitative and qualitative studies. Information presented in the chronology of related adult participation studies familiarized this researcher with the myriad of adult participation studies and can serve as a resource for future examinations of adult motivation to participate.

The literature review highlighted gaps in studies on motivation to participate in workplace training within the IC. Therefore, this study provides data not found in the literature and fills a gap in the research findings on the motivation to participate in government-sponsored leadership development training in the IC and the workplace in general. To understand the factors that contribute to adult participation, researchers must continue to investigate the contributing factors of motivation to participate or not participate in workplace training within the IC. Methods to test the studies' and research questions are discussed in Chapter III.

CHAPTER III – RESEARCH METHOD

This chapter describes the research methods and identifies the research questions guiding the study design, data collection, and data analysis. The subjects, selection criteria, and sampling rationale are also discussed. One goal of this study was to generate findings and knowledge that can then provide information to assist educators with the planning, development, and implementation of formal government-sponsored leadership development training for employees in the workplace. Another goal is to increase readers awareness and knowledge of factors that enable or deter employee motivation to participate in formal government-sponsored leadership development training in the workplace with regard to the IC. Research for this study focuses on the identification of perceived factors that influence adult participation or non-participation in the workplace. Assumptions and limitations of the study are discussed at the end of this chapter.

This examination uses a two-pronged methodological approach of both quantitative and qualitative data collection. The quantitative part includes close-ended questions in sections 3 and 4 that ask participants to select answers from a set of pre-determined responses. The qualitative portion employs open-ended questions at the end of Section 4 that allow participants the opportunity to reflect on their participation or non-participation, share their individual opinions, and provide responses in addition to those offered through close-ended questions. This study examines two research questions:

1. What perceived factors influence the decision of employees in the Intelligence Community who participate in government-sponsored leadership development training in the workplace?
2. What perceived factors influence the decision of employees in the Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?

Procedures

Organization

Research for this study focused on individuals employed within the IC. Organizations within the IC consist of entry level, mid-career, and senior level employees in different grades

and occupations. Due to the nature of the work, office locations, positions, job-related duties, and other characteristics of IC employees or the organizations themselves were not divulged during the course of the study. The total population who received the survey was 500 employees in a range of positions throughout the IC. The problem on which this study focused was the relative drought of research on factors that increase or decrease the motivation of IC employee participation and non-participation in government-sponsored leadership development training.

Participant Profile

The total population consisted of full and part-time civilian employees and military personnel in the IC, performing mission critical work to minimize potential threats to the United States (U.S.). The survey was distributed through the Chief Learning Officers and this researcher to a consortium of 500 mid-to upper-level professional, executive, technical, administrative, and managerial IC employees. While all IC employees were eligible to participate in the study, a proportionate, stratified random sampling method was used to ensure that key subgroups were present and included a representative sample of the population (Creswell, 2008).

Criteria for Selection

The sample population for this study was required to be employed by or working within one of the 17 IC organizations. Potential participants were employed on a full or part-time basis. There were no other selection criteria for potential participants.

Instrumentation

The survey instruments, the Education Participation Scale-Alternate (EPS-A) (Boshier, 1991) and the Deterrents to Participation Scale-General (DPS-G) (Darkenwald & Valentine, 1985), were modified for the current study. The EPS-A and DPS-G were selected because of their proven record of accomplishment in identifying factors that enabled and deterred adult participation. The questionnaire for the current study (see Appendix J) contained four parts. Section 1 included a brief introduction to the survey. Section 2 focused on demographics. Section 3 used the adapted DPS-G to identify deterrents to employee participation in leadership development training in the IC. Section 4 used the adapted EPS-A to identify factors that enabled participation in leadership development training in the IC. The end of Section 4 contained six

open-ended questions designed to capture participant comments not provided through previous closed-ended questions.

An electronic invitation (see Appendix K) to participate in the study, with a link to the survey on surveymonkey.com, was sent to IC employees. The invitation provided an overview of the purpose, data collection, and confidentiality, use of responses, directions, and timelines for completing the survey. The survey was available 24 hours a day, 7 days a week for approximately 30 days. An email reminder to complete the questionnaire was sent to the sample population by the Chief Learning Officer two weeks prior to the close of the survey.

Education Participation Scale-Alternate (EPS-A)

The development of the EPS-A has evolved over a period of 20 years. The original EPS was developed by Roger Boshier (1971) to test Cyril Houle's (1961) Typology in adult motivation to participate. Over a period of six weeks, Boshier conducted a series of tests to examine the 49-items of participation in adult education, performed a factor analysis to identify subgroups, and used factor scoring to determine the influence of each item within its cluster, to develop the original EPS. Boshier's results produced reliabilities statistically significant at the .001 level ranging from .44 to 1.00 with a median of .81.

In 1972, Morstain and Smart (1974) conducted a study with 600 college students to determine cross-cultural reliability and if individuals sex influenced their participation. Using the findings of their literature review, Boshier's research in adult participation and original EPS, Morstain and Smart developed the EPS-Alternate (EPS-A) containing 42-items and six subscales: social relationships, external expectation, social welfare, professional advancement, social stimulation, and cognitive interest. Morstain and Smart examination of the EPS-A suggested that future revisions of the scale consider the needs of younger adults who may be motivated by social "stimulation."

After reviewing the results of his extensive literature review, retest of the original EPS, and research findings (Boshier & Collins, 1983, 1985; Boshier & Riddell, 1978; Fujita-Stark, 1996; Morstain & Smart, 1974), Boshier (1991) modified the EPS and created the EPS-Alternate (EPS-A). The EPS-A developed by Boshier reduced the number of items from 48 to 42 and includes a 4-point Likert-type scale ranging from 1 "no influence" to 4 "much influence." Subscales from the original EPS were slightly modified by Boshier from six to seven to include

the recommendation of Morstain and Smart to address differences between age and sex groups for younger adults who may be motivated by “social stimulation.” The EPS-A developed by Boshier contains seven subscales: communication improvement, social contact (replaced social relationships), professional advancement, social stimulation, educational preparation, family togetherness, and cognitive interest.

Researchers such as Boshier (1991); Garst and Reid (1999); Morstain and Smart (1974); and Norton (2007) have tested the EPS-A from 1974-2007 and reported similar alpha scores. Morstain and Smart’s (1974) investigation produced alpha scores ranging from .72 in professional advancement to .86 in social relationships, confirming the validity and reliability of the EPS-A. Boshier’s (1991) examination of the EPS-A confirmed the reliability and validity of the instrument with alpha scores from .76 in cognitive interest to .91 in social relationships. Garst and Reid (1999) used the EPS-A form to examine the participation of nontraditional doctoral students, yielding alpha scores from .86 in community service/social welfare to .60 in professional advancement. Norton’s (2007) review of the EPS-A produced alpha scores from .81 in cognitive interest and professional advancement to .85 in social welfare. The only alpha score that varied was the .60 in professional development by Garst and Reid. The four studies in the coefficient alphas of the EPS-A (see Table 3.1) were selected based on their focus on adult participation and incorporation of the EPS-A to identify factors that enable participation.

Table 3.1

Coefficient Alphas of the EPS-A

EPS-A	Boshier, 1991	Garst and Reid,1999	Morstain and Smart, 1974	Norton, 2007
Social relationships	.91	.85	.86	.84
External expectations	.80	.70	.82	.84
Social welfare	.91	.86	.80	.85
Professional advancement	.80	.60	.72	.81
Escape/stimulation	.80	.78	.80	.82
Cognitive interest	.76	.83	.77	.81

Note. Adapted from “The New Reality: Participation of Elected Government Officials of the State of Kansas in Emergency Management Training Post September 11, 2001” S. Norton (2007). Unpublished Dissertation, Manhattan, KS: Kansas State University.

Prior to the development of Section 4 and the decision to use the EPS-A this researcher conducted a review of this survey. The review resulted in a decision to eliminate several of the EPS-A survey questions. Since the training is during the workday, at no cost to employees, and participants must speak fluent English, two of the items in the EPS-A are irrelevant to the subjects in this study. Therefore, the following items were omitted from the survey (1) to improve language skills and (15) to learn another language. The wording of eight items was adjusted to fit the study. These items included: (5) “to get ready for changes in my family,” which now reads “to get ready for changes in my workplace,” (9) “to have a good time with friends” which now reads “to have a good time with co-workers,” (19) “to keep up with others in my family” which now reads “to keep up with others in the workplace,” (26) “to keep up with my children” which now reads “to keep up with my co-workers,” (33) “to answer questions asked by my children” which now reads “to answer questions asked by my co-workers,” (36) “to learn about the usual customs here” which now reads “to learn about the organization/agency customs,” (40) “to help me talk with my children” which now reads “to help me talk with my co-workers,” and (41) “to escape an unhappy relationship” which now reads “to escape an unhappy work relationship.” The adapted EPS-A questionnaire in Section 4 contained 39-items and six open-ended questions.

Deterrents to Participation Scale – General (DPS-G)

Using Scanlan’s (1982) 7-point, 60-item Deterrents to Participation Scale (DPS) to measure the participation of healthcare professionals in continuing education courses, Darkenwald and Valentine (1985) developed a 58-item “general” form of the DPS. In testing the applicability of the DPS on an adult population in a formal learning environment, Darkenwald and Valentine found little compatibility between the construct of the DPS and the “general” adult population, which prevented them from building upon Scanlan’s DPS. Darkenwald and Valentine used the results of their extensive literature reviews and examinations of adults from diverse backgrounds and socioeconomic status to identify and refine a list of deterrents to participation that were used to develop an initial version of the DPS-General (DPS-G) form. The DPS-G created by Darkenwald and Valentine contained 34-items and six (6) subscales: personal problems, lack of confidence, costs, lack of course relevance, low personal priority, time constraints, and lack of interest.

Various iterations of the DPS such as the DPS–G have been examined by Darkenwald and Valentine (1985), Eggleston (2007), Kowalik (1989), Nason (1998), Norton (2007), and Towers (2003), who found the DPS-G to be a reliable and valid instrument. Darkenwald and Valentine’s (1985) study of 2,000 adult students produced alpha scores of .40 in personal problems to .64 in low personal priority, and Kowalik’s (1989) examination with 978 adults reported alpha scores ranging from .48 in low personal priority to .66 in time constraints and personal problems.

A study conducted by Nason (1998) involving 167 government managers and supervisors reported alpha scores between .18 and .83, while a study by Towers (2003) of 108 public healthcare professionals cited alpha scores of .40 and .58 respectively in the area of personal problems as a deterrent to participation. In addition, Norton’s examination of 202 elected government officials reported alpha scores ranging from .75 to .89. The study conducted by Eggleston (2007) included an extensive literature review of the validity and reliability of the DPG-G, but did not report alpha scores. Studies included in the coefficient alphas of the DPS-G (see Table 3.2) were selected by this researcher based on their incorporation of the DPS-G and focus on deterrents to adult participation. Variances in alpha scores were the .18 in personal problems and .31 in lack of confidence reported by Nason, the .40 in personal problems provided by Darkenwald and Valentine, and .48 in low personal priority cited by Kowalik.

Table 3.2
Coefficient Alphas of the DPS-G

DPS-G	Darkenwald and Valentine, 1985	Kowalik, 1989	Nason, 1998	Norton, 2007	Towers, 2003
Cost	.75	.75	.71	.75	.82
Lack of course relevance	.83	.87	.83	.89	.77
Personal problems	.40	.66	.18	.74	.58
Low personal priority	.64	.48	.65	.79	.65
Time constraints	.72	.66	.76	.84	.65
Lack of confidence	.87	.79	.31	.86	.78

Note. Adapted from “*The New Reality: Participation of Elected Government Officials of the State of Kansas in Emergency Management Training Post September 11, 2001*,” by S. Norton (2007). Unpublished Dissertation, Manhattan, KS: Kansas State University.

The DPS-G helps identify factors that deter participation in adult education. Since leadership development training in the IC is offered during the workday, at no cost to the participants, and in a government facility, eight of the items in the DPS-G were deemed irrelevant to the subjects in this study and omitted from the survey. These items include: (7) “I did not meet the requirements for courses, (25) I could not afford miscellaneous expenses like travel, books, etc.,” (26) “I could not afford the registration,” (27) “My employer would not provide financial assistance or reimbursement,” and (28) “I had trouble arranging for childcare.” Additionally, wording of two-items was modified to fit the learning situation for this study. These items included: (6) “My friends did not encourage my participation” which now reads, “My co-workers did not encourage my participation” and (8) “My family did not encourage participation” which now reads, “My supervisor did not encourage participation.” Finally, for consistency of the entire survey and to avoid potential confusion in responses, the original scale of the DPS-G was modified from (1) “not important” through (5) “very important” to (1) no influence through (4) much influence. The DPS-G in Section 3 of the questionnaire for the current study contains 33-items.

Pilot Study

Prior to finalizing the survey, copies of the instrument were distributed via e-mail to five volunteers randomly selected to participate by this researcher. The researcher conducted individual face-to-face meetings with each volunteer to explain the purpose of the survey, why their feedback was needed, how their responses and feedback would be used, type of feedback that was required, and the timeline for completing the survey. Respondents had no prior knowledge of the instrument and agreed to complete the survey and provide feedback to include the length of time it took to complete the survey and if the instrument was easy to comprehend. Upon completion of the survey, respondents stated that the survey was easy to understand and that it took approximately 15 to 20 minutes to complete the entire survey. Individual who participated in the pilot were not used in the final inquiry and no changes were made to the survey instrument (see Appendix J).

Data Collection

Following the approval of Virginia Polytechnic Institute and State University's Institutional Review Board (IRB), an introductory e-mail was developed with language approved by the IRB for the participant invite. The e-mail provided the sample population with an initial introduction to the study prior to reviewing the invitation. It described the purpose and objectives of the study, the role of the researcher and participant, confidentiality, and how data collected for this study will be used, with instructions for accessing the survey through the surveymonkey.com, a web-based program that provides assistance with the design and distribution of survey instruments and the collection and tracking of participant responses throughout the data collection process from a secure website.

The survey was accessible to IC employees through surveymonkey.com 24 hours a day, seven days a week from December 21, 2011 to January 22, 2012. This allowed employees flexibility and the maximum amount of time to complete the survey. A reminder invitation to participate in the study was sent to employees through the ITEB chairperson requesting their voluntary participation and emphasizing the importance of their contribution to the study two weeks before the close of the survey.

Confidentiality of Data

Only the researcher had access to the collected data. Participation in this study was voluntary. Information pertaining to the identity of the IC organizations or employees, work locations, or job responsibilities of respondents was not required nor collected as part of this study. Survey responses were anonymous and did not require the name of the participant. However, demographic information pertaining to participants' age, sex, ethnicity, and income was collected from respondents.

Data Analysis

Data analysis of survey results is based on IC employee perceptions of items that influence their motivation to participate in leadership development training in the workplace. Demographic data collected for this study included gender, age, education level, ethnicity, family income, length of employment in the IC, and participation in IC leadership development courses.

Data was rank-ordered to determine the relevance of each item to the respondents' decision to participate and clustered according to the literature.

The dependent variables for participation were: EPS-A communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest. The dependent variables for non-participation were DPS-G lack of confidence, lack of course relevance, time constraints, low personal priority, and personal problems. The independent variables were participation and non-participation. Once all data were collected, summary reports were obtained from surveymonkey.com for review. Specifically, survey monkey provides numbers and percentages of responses for each survey question. Quantitative data obtained through surveymonkey.com were downloaded into Version 17.0 of SPSS for Windows (2010) for statistical analysis. Qualitative responses obtained through surveymonkey.com were placed in a Microsoft Excel 2007 file for content analysis.

Data analysis began with descriptive analysis on demographic information. The next statistical analysis, Cronbach's alpha, measured the reliability of the EPS-A and DPS-G. A discriminant function analysis was also performed to determine the relationship between groups in this study.

CHAPTER IV – ANALYSIS OF RESULTS

The purpose of this study was to illuminate the factors that enable and deter participation in the workplace. The two research questions addressed in this study were:

1. What perceived factors influence the decision of employees in the federal government's Intelligence Community who participate in government-sponsored leadership development training in the workplace?
2. What perceived factors influence the decision of employees in the federal government's Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?

Statistical analyses were performed on survey results obtained from employees working in the Intelligence Community (IC). This remainder of this chapter provides an overview of participant demographics and responses to an adapted version of the Education Participation Scale-Alternate (EPS-A), Deterrents to Participation Scale-General (DPS-G), and open-ended questions. In addition, statistical analyses conducted to answer the research questions will be discussed.

Description of Respondent Demographics

Participants

The sample population consisted of 500 mid-to upper-level executive, supervisory, technical, administrative, and professional employees within the IC. Once the targeted group of IC employees was identified, external personal email addresses were obtained for the study. After identifying the target population of IC employees, external personal electronic mail (email) addresses were obtained for the study.

Response Rate

According to the chairperson of the Intelligence Training and Education Board (ITEB), invitations to participate in the study were sent to employees by electronic mail (email). Invitations requested that employees participate on a strictly voluntary basis and included

instructions with a link to the survey instrument. Responses were received from 111 of 500 employees, for an overall response rate of 22.2%.

Demographic Profile

As shown in Table 4.1, 81 (75%) of respondents were female and 27 (25%) were male. The results show that 39 (36%) respondents had earned a bachelor's degree, while 36 (33%) possessed a master's degree. Respondents with a bachelor's or master's degree 75 (83%) were between the age of 36 and 50, representing the largest subgroup. While the mean age was 42, respondents varied from 21 to 80 with a primary age range of 36 to 50 63 (58%). Interestingly, the age range of the primary population consisted of individuals within generation X, the same generation for which leadership development training was designed in preparation for future IC leaders.

Respondents were primarily African-American females 75 (68%), with at least a bachelor's degree 69 (72%). The remaining respondents were Caucasian 21 (19%), Multi-Cultural 9 (8%), and other 3 (3%). None of the respondents identified themselves as Asian, Hispanic or Latino, Native Hawaiian, or Other Pacific Islander. Additionally, respondents cited a total annual family income of more than \$130,000 63 (60%), followed by the next highest annual family income of \$85,001 to \$100,000 18 (17%).

Job-Related Characteristics

The information presented in Table 4.2 contains job-related characteristics for years worked in the IC and participation in leadership development training. The data were collected to enhance the researchers understanding of respondent characteristics that may influence their participation or non-participation in leadership development training.

Years worked in the IC. Responses obtained for this study show that 36 (33%) of respondents had worked in the IC for more than 10 years. The next highest groups were tied at 7 to 10 and 4 to 6 years 21 (19.4%), indicating that most respondents had worked in the IC for a minimum of 4 years 69 (72%).

Participation in leadership development courses. Results showed that 75 (69%), over twice the number of respondents, had participated in leadership development courses, versus the 33 (31%) who had not participated. Further analysis of participants and non-participants are discussed later in the chapter.

Table 4.1

Demographics of Respondents (n = 111)

Variable	Category	n	%
Age	21-35 years	21	19.4
	36-50 years	63	58.3
	51-65 years	21	19.4
	66-80 years	3	2.8
	Missing (3)		
Family income	\$70,000 - \$85,000	15	14.3
	\$85,000 – \$100,000	18	17.1
	\$100,000 – \$115,000	6	5.7
	\$115,000 - \$130,000	3	2.9
	More than \$130,000	63	60.0
	Missing (6)		
Gender	Female	81	75
	Male	27	25
	Missing (3)		
Ethnicity	African-American	75	67.6
	Caucasian	21	18.9
	Multi-Cultural	9	8.1
	Other	3	2.7
	Missing (3)		
Education	High School	21	19.4
	Associate Degree	9	8.3
	Bachelor’s Degree	39	36.1
	Master’s Degree	36	33.3
	Doctoral Degree	3	2.8
	Missing (3)		

Table 4.2

Job-Related Characteristics (n = 108)

Variable	Category	<i>n</i>	%
Years worked in the IC	Less than 1 year	12	11.1
	1-3 years	18	16.7
	4-6 years	21	19.4
	7-10 years	21	19.4
	More than 10 years	36	33.3
	Missing (3)		
Participation in leadership development courses	Yes	75	69.4
	No	33	30.6
	Missing (3)		

Responses to Survey Questions

This section addresses descriptive statistics of the responses to the Education Participation Scale-Alternate (EPS-A) and the Deterrents to Participation Scale-General (DPS-G) followed by analyses that address the research questions.

Education Participation Scale-Alternate (EPS-A)

The EPS-A used clusters created by Boshier (1971), modified by Morstain and Smart (1974), and further altered by Boshier (1991) to group related participation factors organized by cluster. Participation clusters focus on factors that enable participation and include communication improvement, social contact, educational preparation, career advancement, family togetherness, social stimulation, and cognitive interest. Descriptions of participation clusters are as follows:

- Communication improvement factors focus on the improvement of communication skills used to speak, write, and comprehend.
- Social contact includes items related to the desire to learn and communicate with others in a group setting.

- Educational preparation includes items that support the attainment of internal and external educational goals and objectives.
- Career advancement factors focus on the achievement of career goals and objectives.
- Family togetherness contains items that enhance or increase communication or time spent with family members.
- Social stimulation includes spending time and being around others.
- Cognitive interest focuses on participation for self-fulfillment or satisfaction.

Deterrents to Participation Scale-General (DPS-G)

Deterrents to participation clusters used for this study include lack of course relevance, personal problems, time constraints, low personal priority, and lack of confidence. Since questions in the original DPS-G survey instrument included items related to cost required to fund training, but leadership development training in the IC is offered to employees free of charge, questions on cost were not considered relevant to this study. Therefore, the non-participation cluster cost was omitted. Deterrents to participation clusters used in this study are described below.

- Lack of course relevance includes items related to perceptions of the benefits and requirements of the course content.
- Personal problems include items focused on personal challenges, outside of work.
- Time constraints refer to the availability or lack of time.
- Low personal priority includes items related to the type and level of importance placed on training by the employee in conjunction with other personal priorities.
- Lack of confidence includes items involving low self-esteem or lack of encouragement by a person of influence.

A 4-point Likert-type scale ranging from 1(no influence) to 4 (much influence) was used to ask respondents to rate each survey item within the clusters in both the EPS-A and the DPS-G according to its influence on their decision to participate or not participate in leadership development training. A mean greater than 2.5 on survey items was established as potentially having had some influence on respondents' decisions to participate or not participate.

As seen in Table 4.3, four items had a mean of 2.5 or greater. These items, which indicated potential influence on respondents' decisions to participate, were associated with the

clusters of the adapted EPS-A: to meet new people (social contact), to achieve an occupational goal (professional advancement), to increase my job competence (professional advancement), and to expand my mind (cognitive interest). However, Table 4.4 shows that none of the survey items had a mean greater than 2.5 on the adapted DPS-G. Although the descriptive analyses indicated that some survey items on the EPS-A may have influenced participants' decision to participate, answering the research questions would require the use of a robust statistical tool. As a result, similar to Faeth (2004), discriminant function analysis was used to determine which variables or clusters in the case of this study, discriminated between the group of employees' who participated in leadership development training in the IC and those who did not participate.

Table 4.3

Adapted EPS-A Clusters

Cluster	EPS-A Item Number	Item	M	SD	Current study		
					Low	High	Rank
Communication improvement	07	To speak better	1.8	.985	1	4	39.55
	20	To write better	2.1	1.12	1	4	43.20
	26	To help me understand what people are saying and writing	1.8	.932	1	4	39.98
	33	To learn about the organization/agency customs	2.1	1.00	1	4	47.18
	38	To help me talk with my employees	1.6	.870	1	4	34.67
Social contact	30	To answer questions asked by my employees	1.6	.865	1		34.33
	01	To become acquainted with friendly people	1.6	.969	1	4	36.48
	08	To have a good time with co-workers	1.7	.926	1	4	36.75
	14	To meet different people	1.10	.927	1	4	43.35
	27	To make new friends	1.5	.948	1	4	33.85
Educational preparation	34	To meet new people	2.8	.718	1	4	39.78
	02	To make up for a narrow previous education	1.3	.718	1	4	28.80
	09	To get education I missed earlier in life	1.3	.969	1	4	29.18
	15	To acquire knowledge to help with other educational courses	2.4	.969	1	4	51.68
	21	To prepare for further education	1.9	.657	1	4	41.85
Professional advancement	28	To do courses needed for another school or college	1.4	.744	1	3	32.08
	35	To get entrance into another school or college	1.5	1.12	1	3	33.67
	03	To secure Professional Advancement	2.5	.969	1	4	51.35
	10	To achieve an occupational goal	2.7	.956	1	4	56.20
	16	To prepare for getting a job	2.1	1.16	1	4	46.90
Family togetherness	22	To give me higher status in my job	2.5	1.17	1	4	52.65
	29	To get a better job	2.2	1.15	1	4	46.90
	37	To increase my job competence	2.7	1.16	1	4	54.58
	04	To get ready for changes in my workplace	2.5	.219	1	4	53.15
	11	To share a common interest with my spouse	1.1	.809	1	2	24.40
Social stimulation	05	To overcome the frustration of day to day living	1.2	.402	1	2	27.90
	12	To get away from loneliness	1.1	.301	1	2	25.60
	18	To get relief from boredom	1.2	.513	1	3	27.48
	24	To get a break in the routine of home and work	1.3	.560	1	3	30.85
	31	To do something rather than nothing	1.7	.959	1	4	37.90
Cognitive interest	36	To escape an unhappy work relationship	1.1	.219	1	2	24.73
	17	To keep up with others in the workplace	2.2	1.03	1	4	48.28
	23	To keep up with my co-workers	1.6	.865	1	4	36.23
	06	To get something meaningful out of life	2.0	1.05	1	4	43.50
	13	To acquire general knowledge	2.4	1.02	1	4	50.58
	19	To learn just for the joy of learning	2.3	1.01	1	4	50.15
	25	To satisfy an enquiring mind	1.10	1.07	1	4	42.73
	32	To seek knowledge for its own sake	2.1	1.05	1	4	46.13
	39	To expand my mind	2.7	1.06	1	4	57.03

Table 4.4

Adapted DPS-G Clusters

Cluster	DPS-G item number	Item	Current study				
			M	SD	Low	High	Rank
Lack of course relevance	09	I didn't meet the requirements	1.6	1.02	1	4	35.42
	18	The courses available were of poor quality	1.5	.871	1	4	34.48
	10	The courses available did not seem interesting	1.7	.969	1	4	37.55
	21	The available courses did not seem useful or practical	1.6	.979	1	4	36.25
	24	The course was not at the right level for me	1.8	1.000	1	4	40.05
	26	I didn't think the courses would meet my needs	1.6	.809	1	4	36.48
	08	I wanted to learn something specific, but the course was too general	1.5	.749		4	35.20
	31	There was no way to get credit towards a degree	1.6	1.02	1	4	36.28
	02	Education would not help me in my job	1.2	.479	1	3	27.53
	33	Incentives for further training are not obvious or don't exist	1.9	1.11	1	4	40.63
Personal problems	05	A personal health problems or handicap	1.0	.000	1	1	23.38
	17	Transportation problems	1.2	.479	1	3	27.30
	19	Family problems	1.2	.657	1	4	25.30
	29	There was no place I could study or practice	1.1	.219	1	2	24.40
	16	Participation would take away time with my family	1.7	1.15	1	4	36.67
Low personal priority	20	I'm not that interested in taking courses	1.4	.575	1	4	32.53
	22	I was not willing to give up my leisure time	1.4	.657	1	3	32.15
	04	I don't enjoy studying	1.6	.809	1	3	36.53
	27	I prefer to learn on my own	1.3	.461	1	2	31.60
Time constraints	32	There was too much red tape in getting enrolled	1.6	.870	1	4	35.08
	11	The courses were offered at an inconvenient location	1.6	.865	1	4	39.63
	14	The amount of time required to finish the course	1.7	.969	1	4	38.03
	25	I didn't think I could attend regularly	1.3	.560	1	3	31.03
	07	I didn't have time for the studying required	1.6	.739	1	3	39.25
Lack of confidence	13	I didn't know about courses available	1.8	1.09	1	4	39.38
	03	I felt I couldn't compete with other participants	1.4	.805	1	4	31.13
	12	I felt I was too old to take the course	1.2	.479	1	3	27.63
	01	I was not confident of my learning ability	1.1	.301	1	2	26.23
	23	I felt unprepared for the course	1.2	.479	1	3	27.53
	06	I did not think I would be able to finish the course	1.3	.435	1	2	30.83
	15	My family did not encourage my participation	1.2	.682	1	4	26.33
	28	My co-workers did not encourage my participation	1.1	.301	1	2	25.83
30	It would interfere with my job responsibilities	1.6	1.02	1	4	33.78	
34	My supervisor didn't encourage or enable my participation	1.8	1.00	1	4	39.15	

Scale Reliabilities

Cronbach's alpha tests were used to determine the reliability of the adapted EPS-A (2012) survey instrument and the adapted DPS-G (2012) instrument. As noted in Table 4.5 results show that coefficient alpha scores for the adapted EPS-A (2012) were comparable in range to those obtained through similar adult participation studies on the EPS-A (1991-2007). As shown in Table 4.6, coefficient alpha scores were comparable in range to those produced by similar adult participation studies on the DPS-G (1985-2003).

Table 4.5

EPS-A Cluster Reliabilities – Cronbach’s alpha

EPS-A cluster	Reliability coefficient (alpha)				
	Boshier, 1991	Garst and Reid, 1999	Morstain and Smart, 1974	Norton, 2007	Overton Stanard, 2012
Social relationships	.91	.85	.86	.84	.89
External expectations	.80	.70	.82	.84	.77
Social welfare	.91	.86	.80	.85	.89
Professional advancement	.80	.60	.72	.81	.76
Escape/stimulation	.80	.78	.80	.82	.80
Cognitive interest	.76	.83	.77	.81	.88

Note. Adapted from “The New Reality: Participation of Elected Government Officials of the State of Kansas in Emergency Management Training Post September 11, 2001” S. Norton (2007). Unpublished Dissertation, Manhattan, KS: Kansas State University

Table 4.6

DPS-G Cluster Reliabilities – Cronbach’s alpha

DPS-G cluster	Reliability coefficient (alpha)					
	Darkenwald and Valentine, 1985	Kowalik, 1989	Nason, 1998	Norton, 2007	Towers, 2003	Overton Stanard, 2012
Cost	.75	.75	.71	.75	.82	-
Lack of course relevance	.83	.87	.83	.89	.77	.84
Personal problems	.40	.66	.18	.74	.58	.51
Low personal priority	.64	.48	.65	.79	.65	.73
Time constraints	.72	.66	.76	.84	.65	.77
Lack of confidence	.87	.79	.31	.86	.78	.77

Note. Adapted from “The New Reality: Participation of elected government officials of the State of Kansas in emergency management training Post September 11, 2001”, by S. Norton (2007). Unpublished Dissertation, Manhattan, MO: Kansas State University

Answering the Research Questions

The first research question asked, “What perceived factors influence the decision of employees in the federal government’s Intelligence Community who participate in government-sponsored leadership development training in the workplace?”

The second, research question asked, “What perceived factors influence the decision of employees in the federal government’s Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?”

Discriminant function analysis was conducted to answer both research questions. The origin of discriminant function analysis started with Fisher (1936), Barnard (1935), and Smith (1936). Discriminant function analysis may be used to “predict membership in groups” (Tabachnick & Fidell, 2007, p. 23) with non-participants and participants as the criterion variables. A “second purpose of DFA [discriminant functional analysis] is classify each observation into one of the groups and assess the success of the classification” (Quinn & Keough, 2002). In this research study, analyses were conducted to determine what clusters, which will be predictor variables for analysis purposes, classified respondents as non-participant or participant. Table 4.7 depicts adapted EPS-A and DPS-G clusters.

Table 4.7

Adapted EPS-A and DPS-G Clusters

EPS-A	DPS-G
Communication improvement	Lack of course relevance
Social contact	Personal problems
Educational preparation	Low personal priority
Professional advancement	Time constraints
Family togetherness	Lack of confidence
Social stimulation	
Cognitive Interest	

Following is a discussion of several assumptions of DFA.

- The Independent group assumption was met because subjects for the research identified themselves as either a participant or non-participant in leadership development training, but the sample of subjects was not drawn randomly.
- Multivariate normality is assumed across all predictor or classifying variables, but distributions of scores for all variables in the study exhibited some skew.
- Adequate sample size is required for effective discrimination between two groups. With 111 respondents reduced to 60 for analysis purposes, it was expected that the smaller sample sizes of 48 “non-participants” and 12 “participants” might not be adequate.
- Homogeneity of variance and covariance matrices was not met, but based on prior researchers, discriminant function analysis was robust enough for use if the assumption was not met.
- Discriminant function analysis may be influenced by outliers because they are scores for predictor variables that are dissimilar from the scores of the group to which they belong. Analyses were conducted to identify outliers. After the first analysis, five outliers were removed but additional outliers appeared after the second and third iteration of identification and removal of outliers. Based on this pattern, to preserve the number of cases for analysis, the researcher decided to conduct analysis with the initial five outliers.

To start the discussion on the discriminant function analysis results, Table 4.8 shows a combination of group statistics on the means of independent variables and the Wilks’ lambda test of equality of group means. In four of seven adapted EPS-A clusters, which are comprised of participation factors, participants had higher means than non-participants. Based on Wilks’ lambda, only one cluster—adapted EPS-A communication improvement, showed a statistically significant difference between groups ($\mu = 10.19$ for participants and $\mu = 13.50$ for non-participants, $p = .024$) with the higher mean held by non-participants. Similarly, for all five DPS-G clusters, which are comprised of factors that deter participation, again, participants had higher means than non-participants. Three of the five clusters showed statistically significant differences between the two groups.

- Adapted DPS-G lack of course relevance ($\mu = 16.50$ for participants and $\mu = 12.50$ for non-participants, $p = .037$).
- Adapted DPS-G personal problems ($\mu = 6.31$ for participants and $\mu = 5.00$ for non-participants, $p = .02$).
- Adapted DPS-G time constraints ($\mu = 8.38$ for participants and $\mu = 6.00$ for non-participants, $p = .02$).

Table 4.8

Group Statistics

Predictor variable	Participant (n = 48)		Non-participant (n = 12)		Wilks' lambda	F	p
	M	SD	M	SD			
EPS-A communication improvement	10.19	3.375	13.50	7.441	.916	5.339	.024
EPS-A social contract	8.88	4.546	6.75	2.598	.960	2.405	.126
EPS-A education preparation	9.31	2.896	10.75	4.634	.969	1.825	.182
EPS-A professional advancement	17.00	5.838	16.75	8.625	1.000	.014	.905
EPS-A family togetherness	12.31	3.308	12.75	4.070	.987	.153	.697
EPS-A social stimulation	11.25	3.206	11.75	4.070	.996	.209	.649
EPS-A cognitive interest	13.44	4.976	13.25	6.662	1.000	.012	.914
DPS-G lack of course relevance	16.50	6.147	12.50	3.943	.927	4.576	.037
DPS-G personal problems	6.31	1.915	5.00	.000	.912	5.566	.022
DPS-G low personal priority	7.25	2.589	6.50	1.168	.984	.949	.334
DPS-G time constraints	8.38	3.480	6.00	1.279	.916	5.348	.024
DPS-G lack of confidence	11.69	2.714	11.50	2.393	.999	.048	.828

Box's Test of Equality of Covariance Matrices

Box's *M* test was performed to test the null hypothesis that the covariance matrices were equal (see Table 4.9). A statistical significance level of $p > .05$ is typically needed to proceed and indicated normality in one or more of the predictor variables. As suspected by the small number of cases for non-participants (12 out of 60), Box's *M* test could not be performed because there were fewer than two non-singular group covariance matrices. The assumption of equal covariance matrices was considered violated. However, Huberty and Olejnik (2006) indicated

that if the assumption of equal covariance matrices was violated, statistical analysis could continue under the assumption the violation would not invalidate statistical tests. Also, Meyers, Ganst, and Guarino (2006) and Raykov and Marcoulides (2008) indicated that discriminate function analysis was robust to violations of the assumptions of equal covariance matrices. As a result, the researcher continued the use of discriminant function analysis, and addressed the research questions.

Table 4.9

Box's Test of Equality of Covariance Matrices

Have you participated in any leadership development course (s)?	Rank	Log determinant
Yes – participant	3	. ^a
No - non-participant	10	12.355
Pooled within-groups	10	12.461

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.
a. Singular

Additional results of Box’s M test in Table 4.10 show that two variables, DPS-G personal problems and DPS-G low personal priority, were discontinued from the original 12 because they had a very strong relationship with another predictor variable or combination of predictor variables. Discriminant function analysis was continued with now 10 independent variables for this study, three of which had shown statistically significant differences between the two groups.

Table 4.10

Variables Failing Tolerance Test^a

Variable	Within-groups variance	Tolerance	Minimum tolerance
DPS-G personal problems	2.971	.160	.001
DPS-G low personal priority	5.690	.074	.001

All variables passing the tolerance criteria are entered simultaneously.
a. Minimum tolerance level is .001.

Additional results from the discriminant function analysis are displayed in Table 4.11 as a summary of the canonical discriminant function. The canonical correlation measures the percentage of variance between the grouping variables (participants and non-participants)

accounted for by the predictor variables (Tabachnick & Fidell, 2007). The square of the correlation (0.738) represents the percentage (54%) of variance explained in the dependent variable. The Wilks' lambda, which can range from zero to one, measures the degree to which the function separates cases into groups. Smaller values of Wilk's lambda indicate the function has greater discriminatory ability. The Chi-square tests the hypothesis that means are equal in the two groups. The test showed that the means were not equal and the function was statistically significant ($p = .000$) in discriminating between participants and non-participants.

Table 4.11

Summary of Canonical Discriminant Functions

Eigenvalue	Canonical correlation	Wilks' lambda	Chi-square	df	p
1.999 ^a	.738	.455	41.67	10	.000

a. First 1 canonical discriminant functions were used in the analysis.

As shown in Table 4.12, the structure matrix shows correlations between each independent variable and the discriminant function. DPS-G low personal priority and DPS-G personal problems were not used in the analyses because they were identified previously in Table 4.10 as having a very strong relationship with another predictor variable or combination of predictor variables. The higher correlated variables were as follows:

- EPS-A communication improvement ($R = -.277$) had a negative and weak correlation with the function.
- DPS-G time constraints ($R = .277$) and lack of course relevance ($R = .256$) had positive and weak correlations with the function.

However, these three variables were very close to the cutoff and had been previously identified as determining significant differences between the two groups. “Generally, just like factor loadings, 0.30 is seen as the cut-off between important and less important variables” (Agresti, 1996, p. 600). Analysis of the discriminant function model continued with the remaining predictor variables that had a relatively weak to very weak relationship with the discriminant function, which means they did not contribute very much to the function's power to classify subjects into the two groups – participants and non-participants.

Table 4.12

Structure Matrix

Predictor variable	Pooled within-groups correlation
DPS-G low personal priority ^a	.332
DPS-G time constraints	.277
EPS-A communication improvement	-.277
DPS-G lack of course relevance	.256
EPS-A social contact	.186
EPS-A educational preparation	-.162
DPS-G personal problems ^a	.124
EPS-A social stimulation	-.055
EPS-A family togetherness	-.047
DPS-G lack of confidence	.026
EPS-A professional advancement	.014
EPS-A cognitive interest	.013

^a This variable not used in the analysis.
 variables ordered by absolute size of correlation within function. Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions.

Group centroids in Table 4.13 provide the mean discriminant function scores for non-participants and participants. The scores are used to establish a cut-off level in classifying cases.

Table 4.13

Group Centroids

Have you participated in any leadership development course(s)?	Group centroid
Yes – participant	-2.153
No - non-participant	.538

Unstandardized canonical discriminant functions evaluated at group means.

Prior probabilities were used in the process of classifying groups. Since the study groups considered for analysis were much different in size, as shown in Table 4.14, prior probabilities were based on the size of the groups.

Table 4.14

Prior Probabilities

Have you participated in any leadership development course(s)?	Prior	Cases used in analysis	
		Unweighted	Weighted
Yes - participant	.800	48	48.000
No - non-participant	.200	12	12.000
Total	1.000	60	60.000

Table 4.15 shows how well the discriminant function worked for each group of the dependent variable. The percentage of cases on the diagonal represents the percentage of cases classified correctly. Original results show that 100% of the cases for participants and fewer, 75% of the cases, for non-participants were classified correctly indicating that “Cross validation produces a more reliable function” (Agresti, 1996, p. 602). Overall, 95% of the cases were classified correctly. As a result of cross validation, 85% of the cases were classified correctly as non-participant or participant, but was this ratio or percentage larger than what would have occurred due to chance? According to Agresti (1996), a ratio that is 25% larger than that due to chance is acceptable. Calculations were performed that involved squaring and summing the proportion of cases in each group from the table of prior probabilities (see Table 4.17) ($0.20^2 + 0.80^2 = 0.68$) to determine the ratio (.68) that would have been achieved by chance. A 25% increase over 0.68 would require that our cross-validated accuracy be 85% ($1.25 \times 68\% = 85\%$), which was reached. The cross-validated ratio (85%) was acceptable.

Table 4.15

Classification Results

		Have you participated in any leadership development course(s)?	Predicted Group Membership		
			Yes – Participant	No - Non-Participant	Total
Original	Count	Yes – Participant	48	0	48
		No - Non-Participant	3	9	12
	%	Yes – Participant	100.0	0	100.0
		No - Non-Participant	25.0	75.0	100.0
Cross-validated ^a	Count	Yes – Participant	45	3	48
		No - Non-Participant	6	6	12
	%	Yes – Participant	93.8	6.3	100.0
		No - Non-Participant	50.0	50.0	100.0

a. Cross validation is done only for those cases in the analysis.

In cross validation, each case is classified by the functions derived from all cases other than that case.

b. 95.0% of original grouped cases correctly classified.

c. 85.0% of cross-validated grouped cases correctly classified.

In addition to the classification results, Figures 4.1 and 4.2 provide visual representations of how well the discriminant function discriminates between the research groups. The figures show that the graphs of the distributions of discriminant scores for the two groups overlap to some extent but also show that the discriminant function does a fairly good job of discriminating between participants and non-participants in leadership development training.

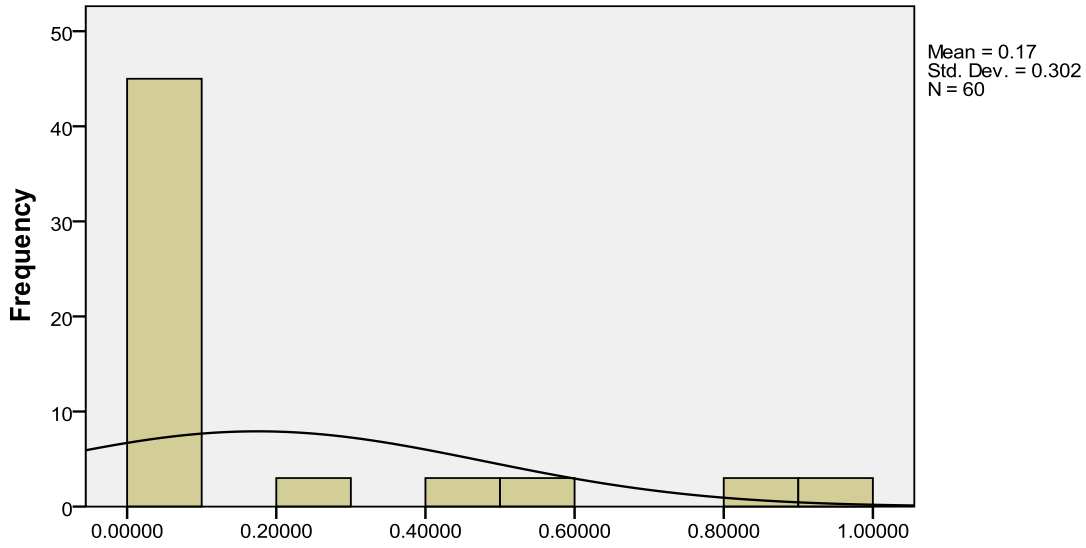


Figure 4.1. Histogram: Distribution of discriminant function scores for the non-participant group. Copyright 2012 by Stephanie V. Overton Stanard.

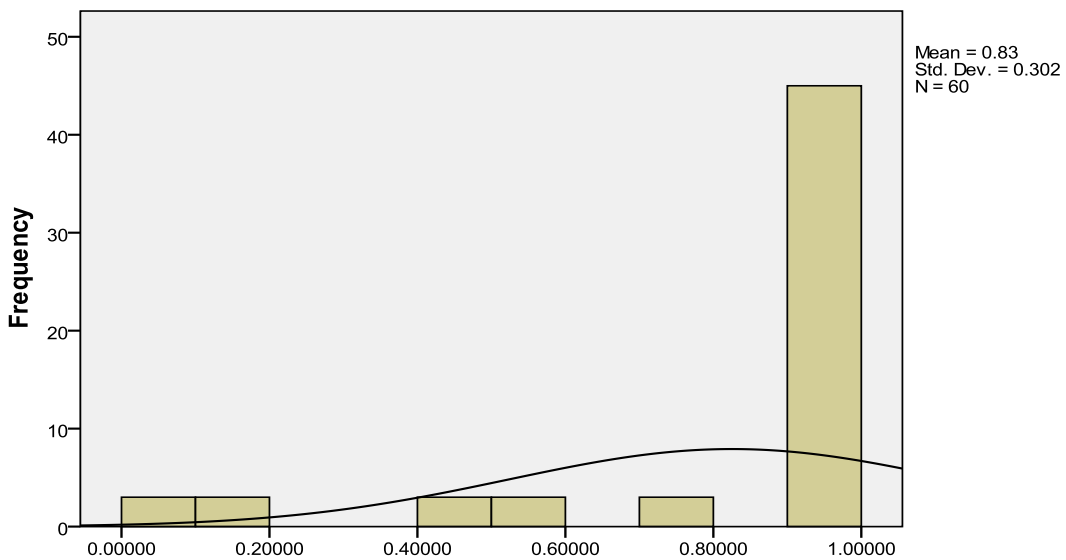


Figure 4.2. Histogram: Distribution of discriminant function scores for the participant group. Copyright 2012 by Stephanie V. Overton Stanard.

Analysis of Open-Ended Responses

An analysis of the seven open-ended questions presented to the sample population was conducted to determine if themes emerged from the various responses. The analysis began with an extraction of participant responses from surveymonkey.com into a Microsoft excel spreadsheet to store the data. The researcher used content analysis to conduct a review of all comments, identify emerging themes, and organize comments by theme for each of the following open-ended questions. Open-ended responses by theme (see Table 4.16) outlines the major themes, total number of responses, total number of responses by theme, and the percent of total responses by theme. A complete list of participant responses by theme is located in Appendix A. Major themes are defined as follows:

- Association is personal and professional connections or relationships with their parents, spouse, friends, co-workers, supervisor, or mentor.
- Leader or supervisor support is provided through employee nomination, approval, funding, or submission of training documents.
- Encouragement refers to verbal or non-verbal supports by parents, spouse, co-workers, supervisors, friends, or mentors.
- Personal growth is the need to fulfill individual goals or needs.
- Availability of time refers to a lack of time and time constraints due to work commitments.
- Career advancement refers to the completion of job-related requirements with the goals of increased work responsibilities or promotion in the workplace.
- Selection is the supervisor or organizational leader approval to attend leadership development training.

Table 4.16

Qualitative Responses by Theme

Theme	Total number of responses by theme	Percent of total responses by theme
Association	20	28%
Leader or supervisor support	17	24%
Encouragement	14	19%
Personal growth	14	19%
Availability of time	10	14%
Career advancement	8	11%
Selection	7	10%

Question #40: Are there other reasons not listed in Sections 3 and 4 that influenced your decision to participate or not participate? If so, please use the space below to provide your comments or additional reasons for participating or not participating.

Forty of 72 respondents (29%) provided responses to the question. The four more prevalent themes were leader or supervisor support, availability of time, personal growth, and selection.

Theme 1: Leader or supervisor support. Seventeen of 40 respondents (42%) indicated that “leader/supervisor support” influenced their decision to participate or not participate in leadership development training in the IC. This theme is consistent with Eggleston’s (2007) study, which cited leader or supervisor sponsorship as a perceived factor of adult participation.

Theme 2: Availability of time. Ten of 40 respondents (25%) indicated that a lack of time and time constraints due to work commitments influenced their decision to participate or not-participate in leadership development training in the IC. For example, one respondent commented “Course not available at a convenient time.”

This theme was consistent with studies conducted by Alderman (2007), Cookson (1986), Nason (1998), Norton (2007), and Towers (2003), which suggested that time allocation influences an employee’s participation. The other factor cited by respondents was work commitments. This theme was consistent with the literature review in Chapter II. According to

researchers (Ahl, 2006; Blunt & Yang, 2002; Eggleston, 2007; Hertz & Williams, 2009) work commitments can influence an employee's participation.

Theme 3: Personal growth. Fourteen of 40 respondents (35%) indicated that "personal growth" influenced their decision to participate or not participate in leadership development training in the IC. This theme was consistent with studies conducted by Blunt and Yang (2002), Boshier (1977), Houle (1961), and Henderson-King and Smith (2006), citing intrinsic value as a contributing factor in an employee's decision to participate.

Theme 4: Selection. Seven of 40 respondents (18%) indicated that non-selection influenced their decision to participate or not participate in leadership development training in the IC. Although this theme was contrary to the literature, two respondents expressed the influence of selection on their participation:

"I have attempted to apply for courses and have been turned down 4 times for "Impact and Influence in the Workplace," when others have been selected the first time, they applied," and

"The selection process is flawed in my organization when those who go to the courses are in the budget/finance section and our section is overlooked time after time. The selection committee is the former head of the Budget/Finance section and the Chief of Staff, who exhibit favoritism and cronyism in all their selections."

Question #41: Were there specific people who influenced your decision to participate or not participate? Yes ___ or No _____. If no, leave blank and proceed to the next question. If yes, please write the individual(s) relationship to you in the space provided below (e.g., mother, father, sister, brother, cousin, co-worker, family friend, etc.).

Thirty-seven of 72 respondents (51%) indicated that other people influenced their decision to participate or not participate in leadership development training in the IC. The major theme that evolved from this question was "associations," which includes family, friends, co-workers, leaders, supervisors, and mentors.

Theme 1: Association. Twenty of 37 respondents (54%) indicated that family such as a spouse, mother or father, friends and co-workers, leaders, supervisors, or mentors influenced their decision to participate or not-participate. This theme was consistent with the studies of Alderman (2004), Boshier (1991), Houle (1961), and Withnall (2006), which suggested that family members could influence an adult's participation in the workplace. Alderman (2004) also

stated that colleagues and friends could influence an adult's decision to participate or not participate. For example, one respondent commented that:

“Yes, my former boss Karen and my current boss Eugene have been supportive however, each has been unable to get staff into training courses.”

Questions #42: How did the individual(s) listed in question #41 influence your decision to participate or not participate?

Thirty-seven of 72 respondents (51%) provided comments in response to this question. The major theme that evolved was “encouragement” from family, friends, co-workers, or supervisors.

Theme 1: Encouragement. Fourteen of 37 respondents (38%) cited “encouragement” as a factor of their participation or non-participation. This theme was consistent with studies conducted by Eggleston (2007) and Hurtz and Williams (2009), which cited encouragement as a factor of adult participation in the workplace. A participant’s comment in support of this theme stated: “Lack of manager/supervisor approval and availability of time can be a problem.”

Question #43: Has your participation or non-participation had an impact on your personal life? Yes ___ or No ___. If no, leave blank and proceed to the next question. If yes, please explain the perceived impact in the space provided below.

Thirty-two of 72 respondents (45%) indicated that their participation or non-participation influenced their personal life. The themes that emerged from the remaining responses were personal growth and career advancement. Interestingly, 55% respondents indicated that their participation or non-participation did not influence their personal life.

Theme 1: Personal growth. Six of 32 respondents (19%) indicated that personal growth influenced their decision to participate or not participate in leadership development training in the IC. This theme was consistent with studies conducted by Alderman (2004), Henderson-King and Smith (2006), Nason (1998), Norton (2007), Towers (2003), and Wlodkowski (2008), which identified personal development as a factor that influenced adult participation.

Theme 2: Career advancement. Six of 32 respondents (19%) indicated that career advancement influenced their decision to participate or not participate in leadership development training in the IC. This theme was consistent with studies conducted by Alderman (2004),

Aslanian (2001), Fujita-Starck (1996), Henderson-King and Smith (2006), Nason (1998), Norton (2007), Towers (2003), and Wlodkowski (2008) identified career or professional advancement as factors that influenced participation.

Questions #44: Has your participation or non-participation had an impact on your professional life? Yes ____ or No _____. If no, leave blank and proceed to the next question. If yes, please explain the perceived impact in the space provided below.

Thirty-four of 40 respondents (85%) stated that their participation or non-participation did not affect their professional life.

Question #45: Please list the leadership development course(s) you have taken within your organization/agency.

Thirty-five of 40 respondents (49%) cited that they had participated in leadership development training within their organization/agency. Responses show that employees participated in 27 different types of leadership development courses (see Table 4.17). The most attended courses were Center for Leadership Development, Program Management 101, and Leadership on the Line.

Table 4.17

Types of Leadership Development Courses

Course	Total number of responses
ABL	1
Success Strategies for Supervisors	1
Creative Leadership development	3
Communicating with Congress and the Media	1
Intelligence Community Officers Course	3
Executive Leadership Development Course/Program	2
Graduate Certificate Program	1
Intelligence Community Supervisory leadership Program	3
APEX	1
Executive Leadership Course	4
Impact in Influence in the Workplace	2
Leading an Empowered Workforce	2
Cross Cultural Management and Communication	1
Women's Leadership Summit	1
Managing Change	3
Strategy Development and Implementation	3
Mentoring Training Women on the Team	1
Leadership Styles and Behaviors	4
Leadership on the Line	5
Executive Leadership Course	4
Army Management Staff College	1
Organizational Leadership for Executives	1
Center for Leadership Development	6
Policy in the Government	2
Project Management 101	5
Project Management 102	4
Total number of courses	27

Questions #46: Please select the IC-wide leadership development course(s) you have taken.

Forty of 72 respondents (55%) participated in IC-wide leadership development training. As indicated by responses to participation in IC-wide leadership development courses (see Table 4.18), ten of 40 respondents (25%) stated that they had not participated in IC-wide leadership development training. Results also showed that the course with the highest participation was Leadership Styles and Behaviors (n = 7). The courses with the second highest participation were Managing Feedback (n = 5), Listening for Results: the Forgotten Skill (n = 5), Mentoring Training Workshop (n = 5), Conflict Resolution & Problem Solving (n = 5), Intelligence Community Officers Course (n = 5), and Leading the IC (n = 5).

Table 4.18
Participation in IC-Wide Leadership Development Courses

Course	Participation	
	n	%
Looking Glass Course	1	2
Managing Feedback	5	12
Leadership Styles and Behaviors	7	17
Program on Creative Leadership	4	10
Stepping up to Management	3	7
Building Your Team for an Unknown Future: Lessons from Lewis & Clark	-	-
Success Strategies for Making the Most of Change	1	2
Managing from the Middle	3	7
Mentoring Training Workshop	5	12
Leadership Challenge Perspective	-	-
Business Acumen for Government	-	-
Listening for Results: The Forgotten Skill	5	12
Preparing for the Challenge	1	2
Transformational Leadership	4	10
Quality Customer Service	3	7
Transition to Supervision	1	2
Feedback for Effective Workplace Performance	3	7
Is Management for Me?	3	7
Conflict Resolution & Problem Solving	5	17
Intelligence Community Officer Course	5	17
Integrating the IC	-	-
Leading the IC	5	12
None	10	15

Summary of Results

The research objective was to answer the following research questions.

1. What perceived factors influence the decision of employees in the federal government's Intelligence Community who participate in government-sponsored leadership development training in the workplace?
2. What perceived factors influence the decision of employees in the federal government's Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?

In all, 111 out of 500 (22%) employees in the IC participated in the research survey. The most prevalent demographics were that 75 (68%) of respondents were African-American females, 69 (72%) possessed a bachelor's degree or higher, 63 (60%) earned annual family incomes of \$130,000 or more, 69 (72%) had worked in the IC for four or fewer years.

To answer the two research questions, a discriminant function analysis was conducted to classify employees as participants or non-participants in government-sponsored leadership development training in the IC. Box's M test was violated, but findings in prior research provided the means to continue the analysis. Important results that validated the discriminant function analysis were:

- The discriminate function revealed a significant association between the two research groups and three of 12 predictors. The overall model accounted for 54% of between group variability.
- The three independent or predictor variables were identified as having weak, but meaningful relationships with the discriminant function along with the other seven that had very weak relationships with the function,. The variables did not contribute very much to the function's ability to discriminate between groups.

Following are the predictors or perceived factors that influenced the decision of employees in the federal government's Intelligence Community who participated or did not participate in government-sponsored leadership development training in the workplace. When the means that were statistically different were compared, for communication improvement the mean was 10.19 for participants and 13.50 for non-participants, for time constraints the mean was 8.38 for participants and 6.0 for non-participants, and for lack of course relevance, the mean was 16.5 for participants and 12.5 for non-participants.

- EPS-A communication improvement ($R = -.277$) had a negative and weak correlation with the function. The results showed that EPS-A communication improvement had a greater influence on the decision of IC employees who did not participate in leadership development training.
- DPS-G time constraints ($R = .277$) and lack of course relevance ($R = .256$) had positive and weak correlations with the function. Additionally, DPS-G time constraints and lack of course relevance had a greater influence on IC employees who did participate in leadership development training.
- The cross-validated classification of employees into groups showed that overall, 85% were classified correctly – a statistic that was greater than the proportional by chance accuracy of 68%.

Finally, major themes identified from responses to open-ended questions were:

- **Association.** Emphasized the influence of perceptions and values of family members, co-workers, supervisors, leaders, and peers on the relevance or importance of training.
- **Encouragement.** Focused on encouragement to participate from family, friends, co-workers, or supervisors. Approval to attend training was also viewed as encouragement from supervisors.
- **Career advancement.** Highlighted the ability to participate in training to satisfy a work requirement or advance the individuals career through promotion or increase job responsibilities.
- **Leader or supervisor support.** Emphasized the influence of lack of verbal support or guidance from a leader or supervisor.
- **Availability of time.** Highlighted comments regarding time constraints, work commitments and courses not offered at a convenient time.
- **Personal growth.** Responses focused on fulfilling personal and education goals.
- **Selection.** Emphasized non-selection based on perceived favoritism, selection based on work unit, and non-supervisor approval.

CHAPTER V – DISCUSSIONS, RECOMMENDATIONS, AND CONCLUSIONS

This chapter begins with a summary of the study and presentation of its major findings directly related to the research questions. Limitations of the study address challenges that may have occurred in the procedures, instrumentation, design, or execution. This chapter concludes with a discussion of implications for theory and practice, recommendations for future research, and conclusions.

Summary of Study

The goal of this study was to provide a rationale and justification for a new conceptual framework that will enable and facilitate a better understanding of the factors that influence the decision of employees who participate and who do not participate in government-sponsored leadership development training in the Intelligence Community (IC). This researcher used adapted versions of the Education Participation Scale-Alternate (EPS-A), the Deterrent to Participation Scale-General (DPS-G), and open-ended questions to identify factors of adult participation and non-participation:

- The adapted EPS-A contained seven subscales: communication improvement, social contact, educational preparation, professional advancement, family togetherness, social stimulation, and cognitive interest.
- The adapted DPS-G consisted of five subscales: lack of confidence, lack of course relevance, time constraints, low personal priority, and personal problems.

The EPS-A and DPS-G were existing instruments used in previous adult participation studies in the workplace (Eggleston, 2007; Nason, 1998; Norton, 2007; Towers, 2003) and separately identified as reliable and valid survey tools. The survey instrument (see Appendix N) for this study contained 81 closed-ended and seven open-ended questions. A pilot to test the ease of use and completion time of the survey was conducted prior to distribution of the invitation to participate in the study. This study was conducted in the confines of the IC. Invitations (see Appendix K) to voluntarily participate in the study were emailed to the sample population. In all, 111 responses out of 500 invitations were received for an overall response rate of 111 out of 500 (22%). Respondents were 75 (68%) African-American, 21 (19%) Caucasian, 9 (8%) Multi-Cultural, and 3 (3%) other with females 81 (75%) and males 27 (25%) between the

age of 21 and 80. The average participant was age was 42. Seventy-eight of 111 respondents (72%) possessed a bachelor's degree, master's, or doctoral degree, had worked in the IC for more than 10 years 36 (33%), and earned an annual family income of more than \$130,000 63 (60%). Survey responses were analyzed using descriptive analysis, Cronbach's alpha, and discriminant function analysis (DFA). Content analysis was used to examine responses to open-ended questions

Discussion of Findings

This section outlines the major findings of this study. A discriminant function analysis provided important information about three predictor variables that were instrumental in discriminating between participants and non- participants. Statistically significant findings ($p < .05$) from the adapted EPS-A portion of the survey instrument and in response to the research question, "What perceived factors influence the decision of employees in the federal government's Intelligence Community who participate in government-sponsored leadership development training in the workplace?" was **EPS-A factor communication improvement as a perceived enabler for non-participants**. This theme supports the findings of Boshier (1991), Boshier and Collins (1983), and Boshier and Riddle (1978), which stated that individuals with a desire to improve their communication are more likely to participate.

Statistically significant findings ($p < .05$) from the DPS-G portion of the survey instrument and in response to the research question, "What perceived factors influence the decision of employees in the federal government's Intelligence Community who do not participate in government-sponsored leadership development training in the workplace?" were **DPS-G lack of course relevance and DPS-G time constraints as perceived deterrents for participants**. These findings are consistent with the studies of Nason (1998) and Eggleston (2007), which confirmed that employees who cited lack of course relevance and time constraints as factors are less likely to participate.

Additionally, seven major themes identified as enablers and deterrents of participation in the IC included **personal growth, leader or supervisor support, availability of time, selection, encouragement, association, and career development**.

Question #40: Are there other reasons not listed in Sections 3 and 4 that influenced your decision to participate or not participate? If so, please use the space below to provide your comments or additional reasons for participating or not participating.

The four emerging themes were personal growth, leader or supervisor support, availability of time, and selection.

- Personal growth was an enabler for participants. This theme is similar to findings cited by Blunt and Yang (2002), Boshier (1977), Houle (1961), Henderson-King and Smith (2006), and Merriam and Caffarella (1999) who identified personal growth as an enabler of participation.
- Leader or supervisor support was a deterrent for non-participants. This theme aligns with the findings of Eggleston's (2007) study, which revealed leader or supervisor sponsorship or support as a deterrent for non-participants.
- Availability of time was a deterrent for non-participation. This theme is consistent with findings reported by Alderman (2007), Cookson (1986), Nason (1998), Norton (2007), and Towers (2003) who suggested time as a deterrent for participants.
- Selection was a deterrent for non-participants. This theme refers to selection in terms of providing approval to attend leadership development training. However, approvals may not reside with the supervisor or leader, but with a board of senior executives outside of the employee's chain- of- command or a group of supervisors and peers from a different office.

Question #41: Were there specific people who influenced your decision to participate or not participate? Yes ___ or No _____. If no, leave blank and proceed to the next question. If yes, please write the individual(s) relationship to you in the space provided below (e.g., mother, father, sister, brother, cousin, co-worker, family friend, etc.).

Association (e.g., spouse, parents, friends, co-workers, leaders or supervisors) emerged as both a deterrent and enabler of participation. This theme supports the research findings of Alderman (2004), Boshier (1991), Houle (1961), Hurtz and Williams (2009), and Withnall (2006) highlighting values, prior education, and the experiences of family members and colleagues as contributing factors.

Questions #42: How did the individual(s) listed in question #41 influence your decision to participate or not participate?

Encouragement was cited as a deterrent. Encouragement as a deterrent aligns with findings cited by Eggleston (2007) and Hurtz and Williams (2009), which identified lack of encouragement as a deterrent to participation.

Question #43: Has your participation or non-participation had an impact on your personal life? Yes ___ or No ___. If no, leave blank and proceed to the next question. If yes, please explain the perceived impact in the space provided below.

The majority of respondents stated that their participation or non-participation did not influence their personal life. The two themes that emerged as enablers of participation were personal growth and career advancement.

- Personal growth supports the findings of Alderman, 2004, Henderson-King and Smith, 2006, Nason (1998), Norton (2007), Merriam and Caffarella (1999), Towers (2003), and Wlodkowski (2008), which identified personal goals as a contributing factor.
- Career advancement confirms findings of studies conducted by Alderman (2004), Aslanian (2001), Cross (1981a), Fujita-Starck (1996), Henderson-King and Smith (2006), Nason (1998), Norton (2007), Merriam and Caffarella (1999), Towers (2003), and Wlodkowski (2008), which cited the ability to accomplish career aspirations as a contributing factor.

Questions #44: Has your participation or non-participation had an impact on your professional life? Yes ____ or No _____. If no, leave blank and proceed to the next question. If yes, please explain the perceived impact in the space provided below.

Respondents stated participation or non-participation did not influence their professional life. This finding contradicts results found by Henderson-King and Smith (2006) O'Donnell and Tobbell (2007), which found that participation and non-participation can directly influence an employee's professional life.

Question #45: Please list the Leadership course(s) you have taken within your organization/agency.

Results show that IC employees attended 27 different leadership development courses within their specific organization or agency. A complete list of courses is provided in Chapter IV (see Table 4.17). Courses identified as having four or more participants were: Center for Leadership Development, Leadership on the Line, Executive Leadership Course, and Leadership Styles and Behaviors.

Question #46: Please select the IC-wide Leadership Development course(s) you have participated.

This question was included in the survey instrument to determine the types of government-sponsored IC-wide leadership development courses employees had participated in, if any. Results (see Table 4.18) show that respondents participated in 18 of 27 courses in the survey instrument. Courses attended by four or more respondents' included Managing Feedback, Leadership Styles and Behaviors, Program on Creative Leadership, Mentoring Training Workshop, Listening for Results: The Forgotten Skill, and Transformational Leadership.

Limitations of the Study

Survey Design

The survey instrument used in this study contained adapted versions of both the EPS-A (39-items), DPS-G (35-items), demographic (seven items), and open-ended questions (seven items). Since a decrease in the number of survey questions might have affected the validity and reliability of the EPS-A or DPS-G measures, study participants were asked to complete the 81 closed-ended questions. The relatively large number of survey questions may have influenced the 111 out of 500 (22%) response rate.

Data Collection

Four factors regarding data collection may have influenced the number and demographics of the respondents.

- Distribution of the invitation and reminder to participate in this study coincided with the Christmas holiday. Therefore, IC employees on leave from work, traveling for the holiday, shopping for Christmas, or spending time with family members, may have affected the number of participant respondents.
- This researcher was unable to confirm what portion of the sample population received the email invitation and reminder to participate in the study. Emails redirected to a junk, mailbox, spam folder, or sent to inaccurate, out-of-date email address, may have limited the number of participant responses for this study. Technology is an excellent tool, but can also serve as a hindrance when it does not produce the desired result and may require the use of an alternate plan of action.
- The majority of the respondents for this study were females 81 (75%). Although males represent nearly 66% of the IC workforce, only one-quarter 27 (25%) of the respondents were men. According to Wlodkowski (2008), females respond to adult participation studies more than males. In addition, studies in adult participation (Henderson-King and Smith (2006); Maurer, Weiss, and Barbeite (2003); Towers (2003); and Withnall (2006) stated that responses from females outweighed replies provided by their male counterparts. Offering an incentive such as a \$5.00 gift card to Starbucks to the first 100 respondents may increase the number of male participants.
- Existence of outliers in the predictor variable data may have affected the strength and reliability of the discriminant function analysis.

Generalization of Findings

Four factors may have limited the generalization of this study.

- The sample of research subjects was a sample of convenience involving IC employees willing to take part in research studies.
- The sample size was relatively small because only 111 out of 500 (22%) of the population participated in the study.
- This study relied on employee's understanding of the factors that enable and deter participation in workplace training.
- Allowing participants to self-report can increase the influence of interpretations and opinions when responding to survey questions. The challenge is that opinions are

typically shaped by current or prominent issues in an individual's life (Cross, 1991) and can affect the accuracy of the responses. When feasible, organizations might consider administering the survey instrument face-to-face. This allows the investigator to clarify perceptions and discuss definitions of relevant terms, while providing an overview of the study.

Implications for Theory

Cross's (1981a) chain of response model (COR) highlighted the challenges and obstacles that adult learners encounter, while participating in adult education programs. The new knowledge of adult participation from responses to open-ended questions suggested that there may be additional factors, not covered in the COR model that can be considered. Major themes identified cited a lack of leader or supervisor support as a deterrent to participation in the workplace. This finding confirmed results reported by Eggleston (2007) and Hurtz and Williams (2009), which also cited lack of encouragement from a leader or supervisor as a deterrent to participation. This key area is not covered in Cross's model, which led to the question--does the COR model contain an accurate reflection of the factors that motivate adult participation in the workplace? As shown by the findings of this study, leader or supervisor encouragement or support is a factor that warrants further investigation for consideration in future models of adult participation.

Implications for Practice

Much can still be learned by testing the influence of the EPS-A or DPS-G on subgroups such as telecommuters, individuals with advanced degrees, or the different generations in the workplace. With ongoing budget cuts across the workforce, organizations have implemented alternative work options such as telecommuting. Identifying factors of participation and non-participation for telecommuters who may be limited to web or computer-based training can be explored. A review to determine the influence of EPS-A and DPS-G factors on different levels of advanced degrees may help determine if educational levels influence participation and their effect on participation and non-participation in other courses. As new generations of employees enter the workforce, each may have different needs and mindsets. Therefore, organizations can

make a conscious effort to development creative learning strategies that engage and challenge the interest of the “technically savvy” generations.

Possessing a comprehensive and broad understanding of the factors that influence employee participation or non-participation in federal and state leadership programs are essential to accommodating the learning and development needs of IC employees. The confidential nature of the Intelligence Community (IC) has led many to wonder, how to develop potential leaders in the IC. Managers, supervisors, and practitioners who acquire a better understanding of the contributing factors may be able to better gauge how these issues affect a potential leader's abilities, interests, and participation in leadership development training. The findings of the EPS-A and DPS-G measures obtained from this study were a key step in this direction. Specifically, this study's findings regarding enablers, deterrents, and attendance in workplace training can be used by managers, supervisors, and practitioners to implement strategies that counter potential challenges in moving non-participants to participants.

The open-ended questions illuminated the fact that IC leaders may not be comfortable stepping up, participating in, or identifying themselves as potential leaders. This study's findings showed that IC employees were participating in leadership development training in the workplace. The IC also appeared to have higher levels of individuals with advanced degrees, which may result from its frequent investment in the education of employees. This confirmed Kienzl (2008) findings, which suggested that the participation rate of adults increases for individuals with higher levels of education. It can be assumed that an individual's level of education and participation in leadership development training in the workplace, may be similarly negatively influenced (i.e., high school graduates may not feel as comfortable participating as employees who possessed a bachelor's or master's degree). The IC might focus on ways to increase employee participation and can use the findings of this study to explore if an employee's level of education (i.e., high School, bachelors, or master's degree) influenced their participation, or correlates with IC or other employees.

Recommendations for Future Research

Future research in the IC may well consider incorporating larger, diverse randomized samples to the extent possible and applicable qualitative research methods to understand the perceptions of managers and supervisors toward employees not selected to attend leadership

development training in the workplace. Qualitative studies might include "non-leaders" and "current leaders," but be stratified by educational level. Organizations can use these findings to develop alternative instructional methods that may increase participation and help employees acquire critical skill sets, maintain their competitiveness, and work with supervisors to identify potential barriers and modify criteria for the "selection" of employees. This recommendation is supported by the findings of Anderson and Darkenwald (1979), Boshier (1973), Darkenwald, Kim, and Stowe (1998), Gaponova and Martynova (2003), Houle (1961), and Wlodkowski (2008), which confirmed that instructional methods can influence adult participation.

Factors identified through this study may help to determine if similar results are produced in a non-traditional training environment such as web-based training, knowledge management, shadowing, or mentoring. Investigating in the application and usability of options other than traditional classroom training can help practitioners determine if employees' perceptions of factors that enable or hinder participation are similar for non-traditional training environments.

Another recommendation would be to replicate the current study within one of the 17 IC organizations. Given the low response rate, focusing on one organization where the investigator works and possesses knowledge of the politics and culture may be beneficial for future research conducted in the IC. Potential benefits include increased support from leadership and the ability to design, monitor, and implement targeted strategies to encourage participation in the study plus results that may lead to greater participation in leadership development programs and courses.

Conclusions

This study extended the research in adult participation through its focus on the Intelligence Community (IC) by examining the factors that influence employee participation and non-participation in leadership development training. Studies have been conducted on adult participation in the state and federal government workplace (Eggleston, 2007; Nason, 1998; Norton, 2007; Towers, 2003). However, no studies were found that examined the contributing factors of adult participation in the IC. Major findings from this study revealed that:

- Descriptive analysis conducted on the adapted EPS-A factors with means of 2.5 or greater identified **to meet new people, to achieve an occupational goal, to increase my job competence, and to expand my mind** as factors that influenced the decision of IC employees who participated in leadership development training.

Results of the discriminant function analysis indicated that:

- Adapted EPS-A cluster **communication improvement** influenced the decision of IC employees who participated in leadership development training.
- Adapted DPS-G cluster **time constraints** influenced the decision of IC employees who did not participate in leadership development training.
- Adapted DPS-G cluster **lack of course relevance** influenced the decision of IC employees who do not participate in leadership development training.

The following major themes from responses to open-ended questions revealed additional areas that influenced employee's decisions:

- **Association** was based on relationships between the IC employee and family members, co-workers, supervisors, leaders, and peers. The perceptions and values of these individuals influenced participation and non-participation.
- **Encouragement** was verbal support from family, friends, co-workers, or supervisors and written approval from supervisors.
- **Career advancement** was participation in training to satisfy a work requirement or career advancement through promotion or an increase in job responsibilities.
- **Leader or supervisor support** referred to verbal or financial support from a leader or supervisor.
- **Availability of time** was potential time constraints, work commitments, or courses not offered at a convenient time.
- **Personal growth** focused on fulfilling personal and education goals.
- **Selection** was non-selection based on perceived favoritism or work unit, and non-supervisor approval.

A review of the literature and findings of this study reveal that while some contributing factors of adult participation may be specific to the culture of the organization under exploration, many are applicable to other federal, state, and private organizations. One of the consistent themes was leader or supervisor support. There was no doubt that some employees depend on support, encouragement, and direction from leaders or supervisors when it comes to leadership development training. Therefore, organizations looking to develop future leaders might consider the use of career paths and annual training or career development plans that at a minimum, identify specific competencies and training requirements for the various career level (i.e., Entry,

mid, expert). This may help increase participation in leadership development training, address employee's developmental and training needs, and ensure alignment between training, job responsibilities, and career goals and objectives.

What responses to this research did not illuminate were the assumptions that may have influenced participant responses, perceptions of IC leadership development training, and the influence of eligibility or mission related requirements on participation and non-participation. Although a number of statistically significant findings were reported by this study, responses were only received from 111 out of 500 (22%) of the sample population and only 60 (67%) respondents were used in the key analyses for answering the research questions. Findings show that this study answered the two research questions through the identification of factors that motivate participation and non-participation in workplace training within the IC.

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APPENDIX A
RESPONSES TO OPEN-ENDED QUESTIONS

Leaders/supervisor support:

- Recommendation from a mentor/supervisor.
- My previous supervisor was a strong supporter of my educational efforts.
- If the training were highly recommended by a leader that I respected - that would go a long way for me.
- Supervisor - By guiding me to courses, they thought I needed.
- Recommendation by a supervisor.
- Support from my manager.
- Recommendation by my supervisor.
- Suggested by a leader or someone I respect.
- Manager or supervisor recommendation or suggestion.
- Supervisor - By guiding me to courses, they thought I needed. Mother/Spouse - by helping with family obligations freeing me to attend training/education opportunities.
- Both my former and current supervisors have encouraged me and signed the required paperwork and have even provided me with the exact wording required on the forms, but nothing has worked.
- I believe in what they say and do - if that it were for me to participate - then I am onboard.
- I remain committed to the job and grateful for my immediate supervisors' support.
- I would welcome the opportunity if offered or permitted by management for my position.
- If my supervisor recommended I attend.
- When recommended by a supervisor or manger.
- Recommendation by a leader in my organization.

Career advancement:

- All training enables me to qualify for the next job.
- Promotion.
- Mandatory training for the job and initial courses selected by supervisor. Then I could pick two per year if budget funds were available.
- Encourage me to always pursue continuous learning to remain competitive.
- Approved funding requirements.
- Participation has provided me the ability to handle difficult situations, think more strategically, have political savvy, interview better for jobs, and obtain career advancing opportunities and positions. I took advantage of many management/leadership training opportunities early on in my career. In addition, the government funded all of my graduate courses. I continue to take leadership and/or technical courses each year to remain current. I have been able to apply the knowledge acquired through formal training and have been compensated well over the years in terms of promotions, bonuses, etc.
- To increase my chance for promotion.
- Enhance my career.

Personal growth:

- Achievement of my personal goals.
- Personal aspirations.
- Mainly self-gratification.
- Family values knowledge is strength. We should always seek to increase our abilities, talents. Encourage others to use talents, fun, earn more money, and to increase knowledge.
- Yes, I can appreciate who I am more and apply the knowledge I gained to my personal life style and management. I have also encouraged my children to obtain degrees and they have accomplished their goals as well.
- I understand people and how they function, why and how to better assist their needs and work with other personalities.
- I take any course I am presented.

- Because it may help me deal with other people better.
- I like to work on improving me, not for just my job.
- Improving me!!
- To fulfill a personal goal.
- To achieve my own goals.
- Accomplishment of my personal goals and aspirations.
- Self satisfaction.
- I took advantage of many management/leadership training opportunities early on in my career. In addition, the government funded all of my graduate courses. I continue to take leadership and/or technical courses each year to remain current. I have been able to apply the knowledge acquired through formal training and have been compensated well over the years in terms of promotions, bonuses, etc.

Association:

- Supervisors
- My supervisor
- My direct Supervisor
- Co-workers
- Mother
- My better half
- My mom
- My parents
- Family members
- A leader in my organization
- Supervisors
- Spouse
- My wife
- My wife
- Leaders
- My wife
- Co-workers
- Co-workers
- Mentors
- Family members

Encouragement:

- Encouragement from family and friends.
- Mentor or supervisor encouragement.
- Encouragement from my sponsor.
- Manager or leader encouraging me to attend the training.
- Encouragement from family and friends.
- Mother/Spouse - by helping with family obligations freeing me to attend training/education opportunities.
- Co-workers who attended the course and recommended that I attend.
- If my sponsor said that I should attend.
- If my husband encouraged me more.
- If my family encouraged me by helping me at home.
- If I was encouraged by others.
- Manager or supervisor encouragement or support.
- Co-workers recommendation.
- Mentor support.

Selection:

- Non-Selection.
- Non-Selection.
- I have attempted to apply for courses and have been turned down 4 times for "Impact and Influence in the Workplace," when others have been selected the first time, they applied.
- The selection process is flawed in my organization when those who go to the courses are in the Budget/Finance section and our section are overlooked time after time. The selection committee is the former head of the Budget/Finance section and the Chief of Staff, who exhibit favoritism and cronyism in all their selections.

- Non-Selection.
- Non-Selection.
- Non-Selection.
- Lack of selection.
- Not selected by my supervisor because of favoritism regarding other employees.

Availability of time:

- Course not available at a convenient time.
- Work commitments.
- Too much work to complete at the office that would keep me from attending a course.
- Yes, my co-workers who also have little time to take training.
- Little time.
- Little time available for training.
- No time.
- Too much work and too little time to attend training.
- Not enough time in the day.
- The office is always really busy and things may not get done if I am away from the office.

Participation in organization sponsored leadership development courses:

- Project Management 101 and Project Management 102.
- Graduate Certificate Program.
- My experience and background has provided numerous leadership development courses from the Army Management Staff College, the Organizational Leadership for Executives (OLE) courses, special training with the Center for Leadership Development, and with Harris Corporation leadership development. I have taught and co-facilitated leader training for the US Army, the National Guard Bureau, and the US Army Corps of Engineers New Leader Development courses for interns and high-achieving managers. Within the IC, I have attended the CACI course and an OPM course related to policy in the government in West

Virginia. I have been a Department of the Army mentor, participating in the program for 4 years and mentoring 3 Office of the Administrative Assistant to the Secretary of the Army's staff. I was also engaged for 6 years with the OAA internship program assisting in the training and development of new interns. I also have 8 months experience with the US Marine Corps in career path development and curriculum design to provide core competencies across the entire USMC morale and welfare career field.

- ABL, Success Strategies for Supervisors
- Leadership Development Seminar (1-yr program)
- Leading An Empowered Workforce
- Cross Cultural Management
- Communication Women's Leadership Summit
- Managing Change Strategy Development
- Implementation Program on Creative Leadership
- Mentoring Training Women on the Team
- Leadership Styles & Behavior
- Program on Creative Leadership
- Impact in Influence in the Workplace
- Leadership on the Line
- Executive Leadership Course
- Creative Leadership Development
- Communicating with Congress and the Media
- ICOC course
- Executive Leadership Development Course/Program
- ICSLP, APEX, EXCEL
- None (10)

APPENDIX B
**APPROVAL TO USE FIGURE 2.1 – EDUCATION FOR VOCATIONAL
COMPETENCE MODEL**

Subject: RE: your permission request
From: Campbell, Brenton - Hoboken (brenton.campbell@wiley.com)
To: starrsimone@yahoo.com;
Date: Mon, 26 Jul 2010 10:09:31

Dear Stephanie,

Thanks for sending this request. Please go ahead and use the content you've mentioned below.

Have a great day.

Brent

From: Stephanie V. Stanard [mailto:starrsimone@yahoo.com]
Sent: Monday, July 26, 2010 12:29 AM
To: Campbell, Brenton - Hoboken
Subject: Re: your permission request

Hi Mr. Campbell,

I have one more request. Please see details below. Thank you.

The following book was not available through Rightslink. Therefore, I am requesting permission to use information by the following author.

Permission Request to Use Sharan B. Merriam and Rosemary S. Caffarella

Requestor's Information:

Name: Stephanie Overton Stanard

Affiliation: Virginia Tech University

Country: United States

Publication Information for the material that Requestor Intends to Use:

Publication Title: Learning in adulthood, 2nd Edition

Publication Type: Book

ISBN/ISSN:

Publication Date: 1999

Title of Material: Miller's Force – Field Analysis - Figure 3.2 Education for vocational competence:

Lower-lower-class level.

Page Range Material: 60 - 61

Requestor's Use of Material:

Type of Use: republish in a thesis/dissertation

Purpose of Use: Academic

Distribution Quantity: Limited (VT & UMI)

Requestor's Publication:

Title: Motivation to participate in government-sponsored training: A study of contributing factors

Type: Dissertation

Author/Editor: Self

Publisher:

Publication Date: May 2011

Entire Publication: Other:

Comments:

Wish to reproduce Miller's Force-Field Analysis – Figure 3.2 Education for vocational competence:
Lower-lower-class level.

APPENDIX C

APPROVAL TO USE FIGURE 2.2 – CONGRUENCY MODEL



Adult education quarterly

ISSN: 0741-7136

Publication year(s): 1983 - present

Author/Editor: AMERICAN ASSOCIATION FOR ADULT AND CONTINUING EDUC

Publication type: Journal

Publisher: SAGE PUBLICATIONS, INC.

Language: English

Country of publication: United States of America

Rightsholder: SAGE PUBLICATIONS INC. JOURNALS

Permission type selected:

Republish or display content

Type of use selected:

reuse in a dissertation/thesis

[Select different permission](#)

Article title: Motivational Orientations Re-Visited: Life-Space Motives and the Education Participation Scale

Author(s): Boshier, R.

DOI: 10.1177/074171367702700202

Date: Jan 1, 1977

Volume: 27

Issue: 2

[Select different article](#)

Gratis

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APPENDIX D

APPROVAL TO USE FIGURE 2.3 – EXPECTANCY-VALENCE MODEL

Subject:: Re: Permission to Use your Expectancy-Valence Model
From: Kjell Rubenson (rubenson@interchange.ubc.ca)
To: starrsimone@yahoo.com;
Date: Fri, 27 Aug 2010 01:48:16

you are more than welcome-just provide proper reference

regards kjell rubenson

-----Original Message-----

Date: Thu Aug 26 19:05:21 PDT 2010
From: "Stephanie V. Stanard" <starrsimone@yahoo.com>
Subject: Permission to Use your Expectancy-Valence Model
To: kjell.rubenson@ubc.ca

Greetings Dr. Rubenson,

I request permission to republish your Expectancy-Valence Model that was presented in 1977 at a meeting of the Organization for Economic Cooperation and Development, Paris France. Additional information regarding the purpose of this requested is provided below. Please let me know if you have any questions or require additional information.

Requestor's Information:

Name: Stephanie Overton Stanard

Status: Doctoral Candidate

Affiliation: Virginia Tech

Country: United States

Requestor's Use of Material:

Type of Use: republish in a thesis/dissertation

Purpose of Use: Academic

Distribution Quantity: Limited (VT UMI)

Requestor's Publication:

Title: Motivation to participate in government-sponsored training: A study of contributing factors

Type: Dissertation

Author/Editor: Self

Publisher:

Publication Date: May 2011

Entire Publication: Other:

APPENDIX E

APPROVAL TO USE FIGURE 2.4 – CHAIN OF RESPONSE MODEL

From: Campbell, Brenton - Hoboken <brenton.campbell@wiley.com>

Subject: your permission request

To: "stclark@vt.edu" <stclark@vt.edu>

Date: Monday, July 19, 2010, 10:59 AM

Dear Stephanie,

I am happy to grant permission to republish the content you requested.

Best wishes,

Brent

Mr. Brenton R. Campbell - Coordinator, Global Rights - John Wiley & Sons, Inc.

111 River St., MS 4-02 - Hoboken, NJ 07030-5774

brcampbell@wiley.com - ph: 201-748-5825 - fax: 201-748-6008

Think Green - Please consider business costs and the environment before you print this email!

Campbell, Brenton - Hoboken

From: Goldweber, Paulette - Hoboken on behalf of Permissions - US
Sent: Monday, July 19, 2010 10:05 AM
To: Campbell, Brenton - Hoboken
Subject: FW: Republication/Electronic Request Form

Hi Brent,

This is request for you.

Thanks!

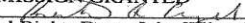
Paulette Goldweber | Associate Manager, Permissions | Global Rights - John Wiley & Sons, Inc.
Ph: 201-748-8765 | F: 201-748-6008 | pgoldweb@wiley.com

-----Original Message-----

From: PermissionsUS@wiley.com on www.wiley.com [mailto:webmaster@wiley.com]
Sent: Sunday, July 18, 2010 12:58 PM
To: Permissions - US
Subject: Republication/Electronic Request Form

A01_First_Name: Stephanie
A02_Last_Name: Overton Stanard
A03_Company_Name: Self
A04_Address: 3502 Kidder Road
A05_City: Clinton
A06_State: Maryland
A07_Zip: 20735
A08_Country: US
A09_Contact_Phone_Number: 301-343-8411
A10_Fax: 301-203-8511
A11_Emails: stclark@vt.edu
A12_Reference:
A13_Book_Title: Adults as learners: Increasing Participation and facilitating learning
A40_Book_or_Journal: Book
A14_Book_Author: Patricia Cross
A15_Book_ISBN: 978-1-55542-445-9
A16_Journal_Month:
A17_Journal_Year:
A18_Journal_Volume:
A19_Journal_Issue_Number:
A20_Copy_Pages: Cross's Chain-of-Response model for participation in adult education, p. 124
A21_Maximum_Copies: Use in Dissertation and through UMI
A22_Your_Publisher: Virginia Tech and UMI
A23_Your_Title: Dissertation Title: Motivation to participate in government-sponsored training: A study of contributing factors
A24_Publication_Date: May 2011
A25_Format:
A41_Ebook_Reader_Type:
A26_If_WWW_URL:
A27_If_WWW_From_Adopted_Book:
A28_If_WWW_Password_Access:
A45_WWW_Users:
A29_If_WWW_Material_Posted_From:
A30_If_WWW_Material_Posted_To:

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APPENDIX F

APPROVAL TO USE FIGURE 2.5 – PSYCHOSOCIAL INTERACTION MODEL

PEARSON

Legal/Permissions
One Lake Street
Upper Saddle River, NJ 07458
Fax: 201-236-3290
Phone: 201-236-3564
Cheryl.Freeman@Pearson.com

Jan 25, 2012

PE Ref # 166900

STEPHANIE V. OVERTON STANARD
Virginia Polytechnic Institute and State University
3502 Kidder Road
Clinton, MD 20735

Dear Ms. Stanard:

You have our permission to include content from our text, ***ADULT EDUCATION FOUNDATIONS OF PRACTICE, 1st Ed. by DARKENWALD, ISBN 0690015410*** in your Ph.D. dissertation for your studies at Virginia Polytechnic Institute and State University.

Content to have several photocopies made and to be published in PDF format on ProQuest UMI Dissertation Publishing (www.proquest.com):

- Page 143 Fig. 3.4 Psychosocial Interaction Model of Participation in Organized Adult Education

Please credit our material as follows:

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Sincerely,



Cheryl Freeman, Permissions Administrator

APPENDIX G

APPROVAL TO USE FIGURE 2.6 – INTERDISCIPLINARY, SEQUENTIAL SPECIFICITY, TIME ALLOCATION, AND LIFE SPAN MODEL



Title: A Framework for Theory and Research on Adult Education Participation

Author: Peter S. Cookson

Publication: Adult Education Quarterly

Publisher: Sage Publications

Date: 09/01/1986

Copyright © 1986, American Association for Adult and Continuing Education

Logged in as:

Stephanie Overton Stanard

Account #:
3000325288

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APPENDIX H

APPROVAL TO USE THE EDUCATION PARTICIPATION SCALE-ALTERNATE

Subject: Permission to Use EPS
From: Roger Boshier (rboshier@interchange.ubc.ca)
To: starrsimone@yahoo.com
Date: Fri, 02 Jul 2010 20:10:43

By this letter I grant Stephanie Stanard permission to use the *Education Participation Scale*.

When and if I appear in her neighborhood she will provide two coffees.

Yours, Roger Boshier

APPENDIX I

APPROVAL TO USE THE DETERRENTS TO PARTICIPATION SCALE - GENERAL



Title: Factor Structure of Deterrents to Public Participation in Adult Education
Author: Gordon G. Darkenwald, Thomas Valentine
Publication: Adult Education Quarterly
Publisher: Sage Publications
Date: 12/01/1985
Copyright © 1985, American Association for Adult and Continuing Education

Logged in as:
Stephanie Overton Stanard

[LOGOUT](#)

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APPENDIX J
QUESTIONNAIRE USED IN THE STUDY

Motivation to Participate in Workplace Training Within the Intelligence Community and
Beyond: A Study of Contributing Factors

INSTRUCTIONS

Please complete all sections of the questionnaire. For each item, mark the number that indicates how important the item was in your decision to participate or not participate in leadership development training. If some items seem irrelevant, just mark “1” and move on, but please address each item and remember to answer the questions at the end of the survey.

DEMOGRAPHICS

Please answer the following questions about yourself by selecting a number or typing in the appropriate text.

Have you participated in any leadership development course(s)?

- 1 = Yes
- 2 = No

How many years have you worked in the Intelligence Community?

- 1 = less than 1 year
- 2 = 1-3 years
- 3 = 4-6 years
- 4 = 7-10 years
- 5 = More than 10 years

What is your gender?

- 1 = male
- 2 = female

What is your age?

- 1 = 21-35 years
- 2 = 36-50 years
- 3 = 51-65 years
- 4 = 66-80 years
- 5 = Over 80 years

What is your ethnicity?

- 1 = African-American
- 2 = Caucasian
- 3 = Asian
- 4 = Hispanic or Latino

- 5 = Native Hawaiian or Other Pacific Islander
- 6 = Multi-Cultural
- 7 = Other

What is your highest education level?

- 1 = School
- 2 = Associate Degree
- 3 = Bachelor’s Degree
- 4 = Master’s Degree
- 5 = Doctoral Degree

What is your approximate total family income?

- 1 = less than \$70,000
- 2 = \$70,000 to \$85,000
- 3 = \$85,001 to \$100,000
- 4 = \$100,001 to \$115,000
- 5 = \$115,001 to \$130,000
- 6 = more than \$130,000

3. BARRIERS TO PARTICIPATION

This section addresses what has kept you from wanting to participate in professional development training. For each item below, please mark the number that indicates how much influence that item had on your desire to participate in workplace training. If some item seems irrelevant, just mark “1” and move on, but please address each item.

	No influence	1	2	3	4	Much influence
I felt I couldn’t compete with other participants		1	2	3	4	
I don’t enjoy studying		1	2	3	4	
A personal health problem or handicap		1	2	3	4	
I didn’t think I would be able to finish the course		1	2	3	4	
I didn’t have time for the studying required		1	2	3	4	
I wanted to learn something specific, but the course was too general		1	2	3	4	
I didn’t meet the requirements		1	2	3	4	
The courses available did not seem interesting		1	2	3	4	
The course was offered at an inconvenient location		1	2	3	4	
I felt I was too old to take the course		1	2	3	4	

I didn't know about courses available	1 2 3 4
The amount of time required to finish the course	1 2 3 4
The course was scheduled at an inconvenient time	1 2 3 4
My family did not encourage participation	1 2 3 4
Participation would take away from time with my family	1 2 3 4
Transportation problems	1 2 3 4
The courses available were of poor quality	1 2 3 4
I was not confident of my learning ability	1 2 3 4
Family problems	1 2 3 4
I'm not that interested in taking courses	1 2 3 4
The available courses did not seem useful or practical	1 2 3 4
I wasn't willing to give up my leisure time	1 2 3 4
Education would not help me in my job	1 2 3 4
I felt unprepared for the course	1 2 3 4
The course was not on the right level for me	1 2 3 4
I didn't think I could attend regularly	1 2 3 4
I didn't think the course would meet my needs	1 2 3 4
I prefer to learn on my own	1 2 3 4
My co-workers did not encourage my participation	1 2 3 4
There was no place I could study or practice	1 2 3 4
It would interfere with my job responsibilities	1 2 3 4
There is no way to get credit towards a degree	1 2 3 4
There is too much red tape in getting enrolled	1 2 3 4

Incentives for further training are not obvious or don't exist 1 2 3 4

My supervisor didn't encourage or enable my participation 1 2 3 4

4. CONTRIBUTING FACTORS OF ADULT PARTICIPATION

This section addresses your participation in adult education initiatives. For each item below, please mark the number that indicates how much influence that item had on your desire to participate in workplace training. If some item seems irrelevant, just mark "1" and move on, but please address each item.

	No influence	1	2	3	4	Much influence
To become acquainted with friendly people		1	2	3	4	
To make up for a narrow previous education		1	2	3	4	
To secure professional advancement		1	2	3	4	
To get ready for changes in my workplace		1	2	3	4	
To overcome the frustration of day to day living		1	2	3	4	
To get something meaningful out of life		1	2	3	4	
To speak better		1	2	3	4	
To have a good time with co-workers		1	2	3	4	
To get education I missed earlier in life		1	2	3	4	
To achieve an occupational goal		1	2	3	4	
To share a common interest with my spouse		1	2	3	4	
To get away from loneliness		1	2	3	4	
To acquire general knowledge		1	2	3	4	
To meet different people		1	2	3	4	
To acquire knowledge that will help with other educational courses		1	2	3	4	
To prepare for getting a job		1	2	3	4	
To keep up with others in the workplace		1	2	3	4	
To get relief from boredom		1	2	3	4	

To learn just for the joy of learning	1 2 3 4
To write better	1 2 3 4
To prepare for further education	1 2 3 4
To give me higher status in my job	1 2 3 4
To keep up with my co-workers	1 2 3 4
To get a break in the routine of home or work	1 2 3 4
To satisfy an enquiring mind	1 2 3 4
To help me understand what people are saying and writing	1 2 3 4
To make new friends	1 2 3 4
To do courses needed for another school or college	1 2 3 4
To get a better job	1 2 3 4
To answer questions asked by my employees	1 2 3 4
To do something rather than nothing	1 2 3 4
To seek knowledge for its own sake	1 2 3 4
To learn about the usual organization/agency customs	1 2 3 4
To meet new people	1 2 3 4
To get entrance to another school or college	1 2 3 4
To escape an unhappy work relationship	1 2 3 4
To increase my job competence	1 2 3 4
To help me talk with my employees	1 2 3 4
To expand my mind	1 2 3 4

Are there other reasons not listed in Sections 3 and 4 that influenced your decision to participate or not participate? If so, please use the space below to provide your comments or additional reasons for participating or not participating.

Were there specific people who influenced your decision to participate or not participate? Yes ___ or No _____. If no, leave blank and proceed to the next question. If yes, please write the individual (s) relationship to you in the space provided below (e.g., mother, father, sister, brother, cousin, co-worker, family friend, etc.).

How did the individual (s) listed in question #82 influence your decision to participate or not participate?

Has your participation or non-participation had an impact on your personal life? .Yes _____ or No _____. If no, leave blank and proceed to the next question. If yes, please explain the perceived impact in the space provided below.

Has your participation or non-participation had an impact on your professional life? Yes ___ or No _____. If yes, please explain the perceived impact in the space provided below.

Please list the Leadership Development course(s) you have taken within your organization/agency.

Please select the IC-wide Leadership Development course(s) you have participated in.

IC-wide Leadership Development Program Courses:

Looking Glass Course
Managing Feedback
Leadership Styles and Behaviors
Program on Creative Leadership
Stepping up to Management
Building Your Team for an Unknown Future: Lessons from Lewis & Clark
Success Strategies for Making the Most of Change
Managing from the Middle
Mentoring Training Workshop
Leadership Challenge Perspective Business Acumen for Government Managers
Listening for Results: The Forgotten Skill
Preparing for the Challenge
Transformational Leadership
Quality Customer Service
Transition to Supervision
Feedback for Effective Workplace Performance
Is Management for Me?
Conflict Resolution & Problem Solving
Intelligence Community Officer Course (ICOC)
Integrating the IC
Leading the IC
None

APPENDIX K
INVITATION TO PARTICIPATE IN THE STUDY

Dear Employee,

You have been selected to participate in a study to examine the *contributing factors of employee participation in professional/leadership development training in the Intelligence Community (IC)*, because you are employed within the IC. We know that participating in training in the workplace can be rewarding for some and difficult for others; we would like to understand the factors that contribute to your participation or non-participation in professional development training in the workplace.

All you need to do is complete an online questionnaire. This is strictly voluntary and should take no more than 20 minutes of your time. The survey contains three sections and will be accessible 24/7 until January 22, 2012. Your responses are anonymous, which means that you cannot be identified. This data collection effort is for research purposes only and your individual responses will not be reported or provided to anyone in your agency/organization. If you are interested in the results of this study, please contact me in a separate e-mail.

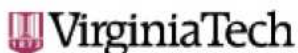
To access the questionnaire, please click on the URL below or copy and paste the URL into your browser. By doing so, you are consenting to participate in the study.

<https://www.surveymonkey.com/s/participationinworkplacetraining>

Your participation is greatly appreciated and is invaluable to this study! We hope you will take the time to complete this questionnaire. If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact us at the e-mail addresses below.

Stephanie V. Overton Stanard
Doctoral Candidate, Virginia Tech
stclark5@vt.edu
Clare Klunk, PhD
Dissertation Committee Chair and Professor, Virginia Tech
cdklunk@vt.edu

APPENDIX L
APPROVAL TO STUDY HUMAN SUBJECTS



Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, VA 24060
540/231-4606 Fax 540/231-0959
email irb@vt.edu
website <http://www.irb.vt.edu>

MEMORANDUM

DATE: June 18, 2012
TO: Stephanie V Overton, Clare Klunk
FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)
PROTOCOL TITLE: Motivation to Participate in Workplace Training: A Study of Contributing Factors
IRB NUMBER: 11-602

Effective June 15, 2012, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the Continuing Review request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As: **Expedited, under 45 CFR 46.110 category(ies) 7**
Protocol Approval Date: **July 12, 2012**
Protocol Expiration Date: **July 11, 2013**
Continuing Review Due Date*: **June 27, 2013**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
An equal opportunity, affirmative action institution

APPENDIX M
CHRONOLOGY OF ADULT PARTICIPATION STUDIES

Researcher	Contributing Factor	Study
Houle 1961	<ul style="list-style-type: none"> • Prior education • Social interaction • Individual personality traits • Temperament or dominant motivational orientations • Perceptions of friends 	<ul style="list-style-type: none"> • Qualitative and qualitative • Interviews with 22 adults
Sheffield 1964	<ul style="list-style-type: none"> • Personal goal orientation • Societal goal orientations • Need-activity orientation • Learning goal orientation • Desire activity orientation 	<ul style="list-style-type: none"> • Qualitative • 58 reasons for participation in education
Johnstone and Rivera 1965	<ul style="list-style-type: none"> • Cost • Too busy • Career advancement • Socioeconomic status • Level of education 	<ul style="list-style-type: none"> • Volunteer for learning • Quantitative and quantitative
Boshier 1971, 1973, 1976, 1977, 1991	<ul style="list-style-type: none"> • External expectations • Cognitive interest • Professional advancement • Escape/stimulation • Social relationships 	<ul style="list-style-type: none"> • Quantitative • EPS and EPS-A • Houle's (1961) typology • 42 (originally 48) items • 13,442 participants • Cluster Analysis
Morstain and Smart 1974	<ul style="list-style-type: none"> • External expectations • Cognitive interest • Professional advancement • Escape/Stimulation • Social relationships 	<ul style="list-style-type: none"> • Quantitative • 611 participants • EPS-A • Factor analysis
Peterson 1981	<ul style="list-style-type: none"> • Interest in an area 	<ul style="list-style-type: none"> • Quantitative • 88 participants • Academia - University of Southern California
Darkenwald and Valentine 1985	<ul style="list-style-type: none"> • Lack of interest • Personal problems • Self-esteem 	<ul style="list-style-type: none"> • Quantitative • 215 participants • DPS-G
Nason 1998	<ul style="list-style-type: none"> • Lack of course relevance • Cognitive interests • Professional development • Increase competence • Career advancement • Job requirements 	<ul style="list-style-type: none"> • Quantitative • EPS-A and DPS-G • 42 participants • Workplace – Government-sponsored training

(appendix continued)

Researcher	Contributing Factor	Study
Cheng and Ho 2001	<ul style="list-style-type: none"> • Job involvement 	<ul style="list-style-type: none"> • Quantitative • 88 participants • Graduates of a part-time
Blunt and Yang 2002	<ul style="list-style-type: none"> • Enjoyment of learning activities • Importance of adult education • Intrinsic value of adult education • Negative prior educational experiences 	<ul style="list-style-type: none"> • Quantitative • Academia - Canadian University • 458 participants
LePine et al. 2004	<ul style="list-style-type: none"> • Stress • Exhaustion • Cognitive ability • Learning performance 	<ul style="list-style-type: none"> • Quantitative • Academia - large college • 696 participants
Kim and Merriam 2004	<ul style="list-style-type: none"> • Prior learning experiences • Cognitive interests • Social contact 	<ul style="list-style-type: none"> • Quantitative • 189 participants • Learning in retirement • EPS-A
Hammond and Feinstein 2005	<ul style="list-style-type: none"> • Cognitive interests • Social contact • Prior academic success • Past learning situations • Life events • Opportunities and access to education • Gender preferences • Marital status 	<ul style="list-style-type: none"> • Quantitative and qualitative • 15 face-to-face interviews
Withnall 2006	<ul style="list-style-type: none"> • Economic status • Pressure from family members 	<ul style="list-style-type: none"> • Qualitative • 98 participants • 10 focus groups
Eggleston 2007	<ul style="list-style-type: none"> • Time • Access • Work • Family • Personal • Money • Sponsorship • Other people 	<ul style="list-style-type: none"> • Quantitative • Open-ended Questions • 833 participants • DPS-G • Workplace – Government sponsored training
O'Donnell and Tobbell 2007	<ul style="list-style-type: none"> • Prior negative educational experiences • Perceptions regarding socioeconomic status • Lack of previous educational experiences 	<ul style="list-style-type: none"> • Qualitative • Semi-structured interviews • 17 participants
Hurtz and Williams 2009	<ul style="list-style-type: none"> • Attitude toward participation • Reactions to past participation • Perceived supportiveness of social and organizational environment 	<ul style="list-style-type: none"> • Quantitative • 427 participants • Workplace – federal and state government