

**FINANCIAL LITERACY MANAGEMENT: AN OUTCOME-BASED EVALUATIVE  
CASE STUDY OF FEDERAL FINANCIAL-EDUCATIONAL PROGRAM**

by

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## Abstract

Notwithstanding the numerous studies and implementation of federal guidance, which details the need for young Americans to understand and master financial subjects, stakeholders' assessments reflected a need to examine the Financial Services Industry (FSI) program's approach to the delivery of financial literacy programs impacting young adults. Current FSI literature highlights the continued problem with financial literacy program's approach; they failed to meet young adults' financial knowledge needs. Therefore, the purpose of this action research project was to examine the perceived inherent shortcomings of the Activity Financial Education Center (AFEC) program, effectiveness of the AFEC program, and discover ways whereby the collaborative efforts of stakeholders and young adults in the AFEC program can better develop strategic improvement plans. The conceptual framework of the study was grounded in general systems, profound knowledge, and financial literacy education theories. The study used the combination of the outcome-based evaluation and case study approach within the participatory action research framework coupled with 11 young adults as stakeholder participants in the study. The logic of the convergent parallel approach was used to facilitate the data collection and analysis process, resulting in the identification of three major qualitative themes: (a) interest in subject, (b) AFEC value, and (c) preferred learning format, which were supported by the quantitative data. The quantitative findings revealed that over 90% of stakeholders understood the importance of financial literacy and actively pursued information related to financial field. The case study findings resulted in the development and implementation of a short-term strategic plan that addressed the participants and community needs. The findings laid the foundation for the creation of a long-term program strategy that utilizes a systems approach into the program's continuous improvement process.

## **Dedication**

To In Soog, my beloved and patient life companion, and to my dear son Efrain II Sun, for the many years of patience, support, and encouragement; they were crucial to my achievement.

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## CHAPTER 1. INTRODUCTION

### Introduction to the Problem

The financial crisis and turmoil that started in 2007 emphasized a financial literacy gap among a large number of young Americans (Cross, 2010; Dusek & Furlong, 2010). The literature also pointed out that young adults did not possess the required financial knowledge and skills to make sound financial decisions (Council for Economic Education, 2016; Peng, Bartholomae, Fox, & Garrett, 2007). Current literature discusses the continued lack of progress in delivering effective financial literacy to young adults and continues to emphasize the extreme negative impact this lack of knowledge had on young adults (Hung, Mihaly, & Yoong, 2010; Lusardi, Mitchell, & Curto, 2010; Lusardi & Mitchell, 2014). The problem is further aggravated by the complexity of the financial world, which makes financial decisions even more difficult. This may explain why there is an increasing gap between one individual's good financial decisions and the poor decisions made by other individuals (Mandell & Schmid Klein, 2007; Martin, 2007; Palmer, 2008). This problem is further intensified by the apparent deficiency in the management and administration of the Federal Financial-Educational (FFE) programs (Government Accountability Office, 2011a; Hung, Parker, & Yoong, 2009).

Despite the federal government's financial education budget of \$30 million, a USA Today/National Endowment for Financial Education (NEFE) poll of young adults aged 22–29 found that of those with debt, 30% said they worried about it frequently. In addition, the

NEFE study revealed that 29% had put off or decided against furthering their education because of debt, and 22% had taken a job they would not have taken otherwise because of debt (FINRA, 2013; Mak & Braspenning, 2012; USA Today/NEFE 2006).

The term *federal financial-educational (FFE) program* is defined in this action research case study as the federally sponsored literacy campaigns and multicultural educational programs. These FFE programs are part of the financial services industry field. FFE programs are designed to provide an enriched knowledge of consumer protection regulations and financial management skills that can shape the attitudes and behaviors of young adults when handling their financial affairs (Consumer Financial Protection Bureau (CFPB), 2013a; Mckenzie, 2009; Sherraden, Guo, & Elliott, 2011). The U.S. Congress took action to unify the strategy development and management of FFE and the financial services industry (FSI) (CFPB, 2013b; U.S. Department of the Treasury, 2012). Congress mandated the creation of the Financial Literacy and Education Commission (FLEC) in 2003 through the Fair and Accurate Credit Transactions (FACT) Act. The FLEC is comprised of 22 federal entities and is chaired by the U.S. Secretary of the Treasury with the purpose of developing and managing a national strategy to promote financial literacy (U.S. Department of the Treasury, 2012). However, the 2007 economic crisis spotlighted the FLEC and FFE programs' apparent failure to deliver programs that met the financial literacy needs of Americans, particularly young adults (GAO, 2005, 2011a, 2011b, 2012). Several surveys on credit card usage among young adults revealed an unabated financial literacy gap. For example, 84% of respondents said they needed more education on financial topics, 64% would have liked to receive financial management education in high school, and 40% would have liked to receive such education as college freshmen (Sallie Mae, 2009).

In addition, a myriad of FSI field studies continued to address the ongoing financial literacy gap and apparent deficiencies of the FFE programs (CFPB, 2013a, 2013b; GAO, 2011a, 2011b, 2011c, 2012, 2014; Greenspan, 2001; Lusardi & Mitchell, 2014; Mandell & Schmid Klein, 2007; Sherraden, Johnson, Guo, & Elliott, 2011). The literature expressed the concerns of stakeholders of both public and private agencies across the United States regarding the lack of adequate financial literacy (Charles Schwab & Co, 2010; Cross, 2010; Dusek & Furlong, 2010; Hung, Mihaly, & Yoong, 2010; Lusardi & Mitchell, 2014). The problem worsened with the FLEC's lack of progress in resolving the numerous persistent factors such as federal programs' lack of a uniform strategy, duplication of efforts, and most importantly, the failure to link young adults' interest, expectations, and needs to the FFE programs (Community Action Partnership, 2011; GAO, 2011a; Levin, 2012; Lusardi, Mitchell, & Curto, 2010).

The available FSI field literature and studies suggests that there is little consensus in the literature concerning the efficacy of financial literacy programs. This is further mentioned in various studies that posit conclusions about the inadequacy of the delivery of current financial education (Delgadillo, 2007; Hastings, Madrian, & Skimmyhorn, 2012; Katras, Zniker, Croymans, & Anderson-Porisch, 2012; Lusardi & Mitchell, 2014). The lack of a consensus exposed a gap in the literature that provided the need and opportunity to further study the subject at hand. To address the gap in literature, the action research case study design framework was developed in alignment with Schalock's Outcome-Based Evaluation (OBE) approach, Stringer's Look, Think, Act (LTA) model, and Patton's methods triangulation. The case study's theoretical foundation encompasses the context of the general systems theory, the theory of profound knowledge, and the Financial Literacy education

theories into its framework. This case study framework provides a holistic and pragmatic approach that is fundamental to explore financial literacy program deficiencies. The collaborative approach was utilized to address the perceived shortcomings of the FSI field Activity Financial Education Center (AFEC) program.

## **Organizational Background, History, and Purpose**

### **Description of the Activity Financial Education Center**

The focus of this study was the “Activity Financial Education Center” (a pseudonym is used due to the classified nature of the site). AFEC is one of the FSI components within the federal government. The AFEC is one of the 56 FFE programs administered within one of 21 separate federal agencies (Hung, Mihaly & Yoong, 2010). The annual budget of these programs is over \$35 million and the programs are designed to serve the general United States population, regardless of income or location (GAO, 2011, 2014). The FSI serves the 50 States and the general population; the young adults served by the program in 2014 consisted of approximately 6,865 young adults (FINRA, 2014).

### **Structure of the Organization**

Figure 1 presents the FSI and the AFEC organizational chart. The FSI organization chart is defined as a rational, conscious arrangement of responsibilities, which defines relationships that exist within organizations (Molina, 2001). The organizational chart reflects the structure of the FSI and AFEC, where the Director oversees the FSI and the Director Activity manages the AFEC. The AFEC is the organization that manages the resources allocated to fulfill the young adult’s financial literacy needs by providing educational programs and counseling.



The AFEC is authorized to manage the financial educational program, develop communication, collaborate and coordinate with the private sector, monitor program progress, and audit programs. The chief priority and vision of the FSI and the AFEC is to organize programs that serve the public's understanding of financial products. The Public Financial Education Chief of Education collaborates with public and private organizations to develop and deploy tools and approaches that address Americans' financial literacy needs. Specific consumer groups are addressed, and programs are tailored to reach each sector of the population (Experian, 2012). The Director of Activity supervises and provides the funding of the AFEC. The AFEC Chief manages personnel and budget to serve the Activity community. The AFEC Chief also assists in developing the financial education curriculum.

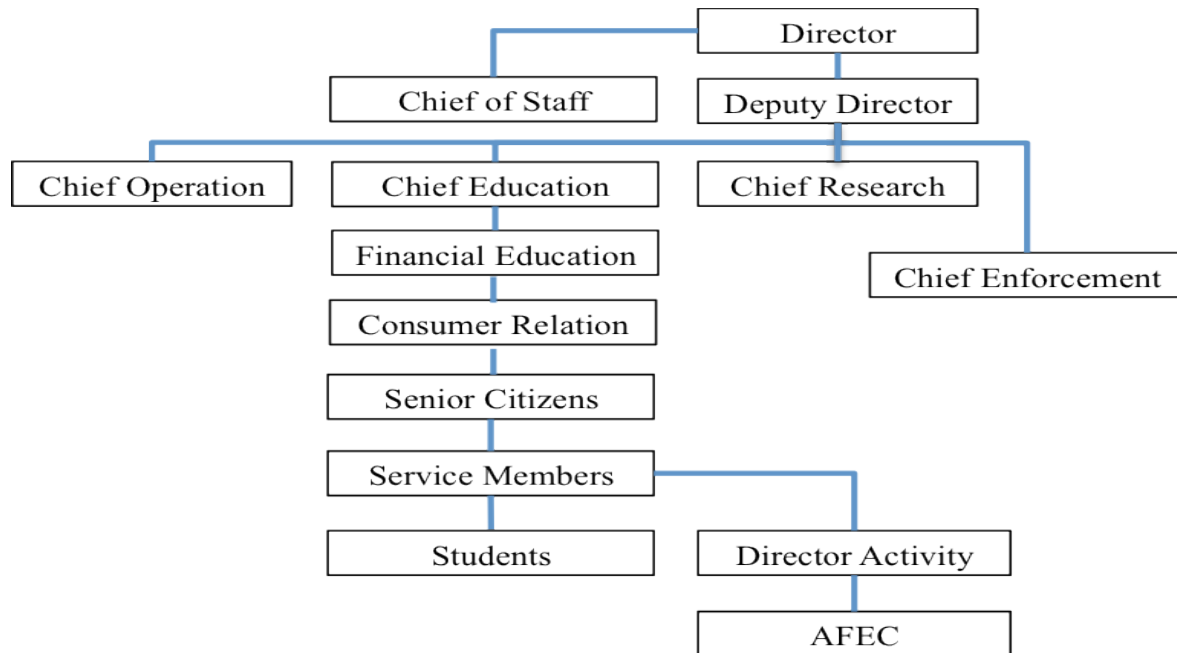


Figure 1. Financial services industry, Education Center organizational chart.

### Background of the Study

Review of the literature from the government and non-governmental organizations (NGO) continues to point to an absence of change in current financial literacy theory,

product design, and methods of delivery by the federal agencies in keeping with young adult needs (Government Accountability Office, 2011a; GAO, 2011b; Kiviat & Morduch, 2012). In today's economic environment, it is critical for every American to understand and master financial skills. However, most Americans learn about financial management from their family, friends, and their own mistakes (Lusardi et al., 2010). Further, young adults, defined for this study as Americans born between 1990 and 1995, grew up in a different and much more complex deregulated financial environment than previous generations, which requires a greater understanding and mastery of financial management skills (FINRA, 2014). Currently, young adults are involved in many financial activities that total approximately \$211 billion in annual financial transactions, hence the reasoning for advocating for early immersion into financial literacy (CFPB, 2013).

Approximately 70% of young adults grew up without developing financial knowledge or skills critical to their future wellbeing (National Financial Educators Council, 2013). This lack of knowledge and skills was caused by the absence of a national convergent financial educational strategy. For example, only 17 states require financial education as part of the school curriculums, but another 33 do not require students to take any financial courses (Council for Economic Education, 2016). Compounding the problem is the fact that parents might not know when or how to teach financial literacy to their children (Council for Economic Education, 2016; Lusardi & Mitchel, 2014). However, the problem persists. In 2008 for example, it was found that financial literacy among high school students was at its lowest. Further, a 2011 survey found that college students' parents were poorly educated in financial issues, making it harder to properly teach financial skills to their children (CFPB, 2013). The consequence of poorly financially educated young adults is the exposure to

vulnerabilities that impact their current and future wellbeing. This was highlighted by a 2009 survey, where 60% of the respondents admitted to living paycheck to paycheck (FINRA, 2009).

The financial literacy problem is not being resolved, and is thus reflected in the constant results of national surveys, studies, and research that keep pointing to the same problem, Americans lack financial literacy. For example, the U.S. Department of Education's 2012 Nation's Report Card in Economics revealed that there were no improvements in high-school seniors' financial knowledge since their 2006 survey. The College Savings Foundation's 2012 study of college graduates (ages 20-35) found that 36% of participants had to continue living with their parents, 40% will delay purchase of a house, and 19-21% would delay marrying and having children (National Financial Educators Council, 2013; US Department of Education, 2013). Similarly, the Seventh Annual Financial Literacy Survey of U.S. adults, conducted in 2013, on behalf of the National Foundation for Credit Counseling, Inc., found that when referring to financial literacy, 40% of adults gave themselves very low grades and 78% agreed that they could benefit from learning more about financial literacy (National Foundation for Credit Counseling, 2012).

To help close the financial literacy gap, the Government Accountability Office (GAO) noted that significant work remains to be done such as avoiding program overlap and implementing effective and efficient utilization of federal resources. In 2012, the GAO recommended consolidating federal efforts, but to date, this recommendation has not been implemented (GAO, 2014). The general consensus is that financial education is essential for everyone, especially young adults who have to deal with more complex financial instruments

and services. Hence, this case study utilized a collaborative and holistic approach to explore and address stakeholders and participants' financial literacy needs.

### **Statement of the Problem**

The problem that this study sought to address is the perceived lack of knowledge on financial literacy program and deficiencies in meeting young adults' financial literacy needs (Cross, 2010; Dusek & Furlong, 2010; Hung, Mihaly & Yoong, 2010). The lack of knowledge on the financial literacy program affects everyone (Lusardi & Mitchell, 2014), but in particular young adults population, 22 to 26 years old (Mandell & Schmid Klein, 2009). Moreover, financial decisions made early in life impact future decisions and appreciation of opportunities such as educational and investment opportunities (Lusardi & Mitchell, 2014). This, in turn, directly impacts each young adult's personal economic growth and wellbeing (Lusardi, Mitchell & Curto, 2010). Further, the problem is not confined to the individuals' self-interest (Bartley, 2011); the financial literacy problem has much larger implications for our society, since an effective democratic system of government and viable economic growth depends on a citizenry that is well educated and versed in the financial field (Klinger, 2011; Letkiewicz, 2012; Lusardi, Michaud, & Mitchell, 2013).

Further, financial literacy is critical to maintaining a healthy democratic system, because an effective democratic system of government and viable economic growth is highly dependent on a citizenry that is well-educated and versed in the financial management (Greenwood & Levin, 2007; Lusardi et al., 2010). A USA Today/National Endowment for Financial Education (NEFE) poll of young adults aged 22–29 found that of those with debt, 30% said they worried about it frequently, 29% had put off or decided against furthering their education because of debt, and 22% had taken a job they would not have taken otherwise

because of debt (2006). The U.S. Senate Committee on Banking, Housing, and Urban Affairs reported in 2002 that the fastest-growing group of bankruptcy filers were those aged 25 and younger (U.S. Congress Senate Committee on Banking, Housing, and Urban Affairs, 2006). Further, 55% of young adults reported they are not saving in either an IRA or a 401(k) account, and 40% do not have a savings account that they contribute to regularly (USA Today/NEFE 2006).

Notwithstanding expenditures of over \$35 million a year, the federal government still falls short of meeting young adults' financial literacy needs. Indeed, the problem continued unabated (GAO, 2014). For example, even though subject literature points out that the lack of financial knowledge negatively impacts young adults' well-being, states such as California, with the largest population in the United States, does not have a financial education program (Federal Reserve Bank of San Francisco, 2010). The GAO noted that significant work remains to be done, such as avoiding program overlap and the implementation of effective and efficient utilization of federal resources. In 2012, the GAO recommended consolidating federal efforts, but to date, this recommendation has not been implemented (GAO, 2014).

Peng, Bartholomae, Fox and Garrett (2007) noted that because students and young adults have limited knowledge about the management of their finances, they tend to make inadequate and expensive decisions, which impacts an individual's ability to save, borrow, and invest. Akin to the research findings that Peng et al., (2007) and Dusek et al., (2010) add to the subject, the "need to be exposed to financial concepts early on, and witness positive financial behaviors as a stepping point to develop these skills later in life." Therefore, this action research project was initiated to expand knowledge and understanding in the field

(Brydon-Miller, Greenwood & Maguire, 2003; Patton, 2002).

### **Purpose of the Study**

The purpose of this OBE case study approach used within the action research (AR) framework was to collaborate with stakeholders and Activity young adults in finding ways to:

- Examine the perceived inherent shortcomings that have impacted the current AFEC educational program.
- Explore the extent to which the AFEC program has been effective in advancing the financial knowledge, attitudes, and behaviors of young adults.
- Explore ways whereby the collaborative efforts of the AFEC program stakeholders and young adults can better develop strategic improvement plans for the current curriculum of the AFEC program.

The researcher utilized quantitative and qualitative data collection through the action research framework with stakeholder participation. Various questionnaires were used and combined with qualitative data from one-on-one e-interviews and focus group e-discussions for the analysis. The results of this case study have contributed to the action research field by confirming the value that the inclusion of stakeholders and program participants bring to the program evaluation and its continuous improvement process. The action research provided the venue to enrich and elevate awareness of the program by engaging the stakeholders and participants at the rank-and-file level.

### **Rationale**

Literature and scholarly works focused on issues related to young adults' lack of financial literacy. These works also discuss how this lack of knowledge makes young adults

vulnerable to risky financial decisions, hindering their ability to effectively manage their personal financial affairs (Cole, Paulson, & Shertry, 2012; Letkiewicz & Fox, 2014; Lusardi & Mitchell, 2011; Mak & Braspenning, 2012; Mandell, 2009; Robb & Woodyard, 2011; Xiao, Ahn, & Serido, 2014). Further, the studies highlight the need to identify opportunities and solutions that can ensure that financial literacy is provided to the American citizenry (Chang, 2005; Holden, 2010; Hung et al., 2010; Mandell & Schmid Klein, 2009; Peng et al., 2007). Financial literacy literature from government and private organizations, however, continues to point to the absence of change to current educational approaches and deliveries by federal programs (GAO, 2011a, 2011b; Kiviat & Morduch, 2012). This study is based on the premise that involvement of the stakeholders and participants during the evaluation process is critical to program accountability to create continuous improvement. The stakeholders' and participants' inclusion in the evaluation process provides them with a buy-in into the process, the ability to determine the problem, and find solutions to address the research questions (Schalock, 2001; Stringer, 2007).

### **Research Questions**

1. What are the perceived inherent shortcomings that have impacted the current AFEC educational program?
2. To what extent has the AFEC program been effective in advancing the financial knowledge, attitudes, and behaviors of Activity young adults?
3. How can the collaborative efforts of the AFEC program stakeholders and Activity young adults better develop strategic improvement plans for the current curriculum of the AFEC program?

## Significance of the Study

The significance of this study lays in the proposition that results and findings can enable the AFEC stakeholders to develop new performance goals, objectives, and program strategies that support changes to current service delivery practices within the AFEC financial literacy program (Fitzpatrick, Sanders, & Worthen, 2011; Schalock, 2001). For the broader financial literacy audience, the study outcome will aid in the knowledge production that assists the FSI's federal literacy managers. This will foster a positive collaborative environment that drives improvements, effectiveness, and efficiency of financial literacy programs that better meet the needs of young adults and the community at large (Patton, 2002; Schalock, 2001).

## Definition of Terms

Action research frequently utilizes a dialogue that allows for reflection on the process as well as the findings (Herr & Anderson, 2005). Therefore, to assist in this dialogue and understanding of the terms utilized during this study the following definitions are provided:

*Activity:* Due to security reasons and the classified nature of the site, a pseudonym is used. For this study, Activity is the unclassified term utilized in reference to the Federal Agency. Further, it also refers to the personnel (study participants and stakeholders) organization of employment.

*Activity Financial Education Center (AFEC):* Activity Financial Education Center (pseudonym is used due to the classified nature of the site). The AFEC is the organization that utilizes a holistic approach to deliver and provide financial training, classes, counseling, and coaching to all Activity members.

*Activity network:* Is a federal government owned and run closed (classified)



information telecommunications network. This network does not connect to the public Internet.

*Federal Financial Education (FFE):* Programs that are sponsored by the federal government. Some of these programs were created under statutory decree (GAO, 2007).

*Field office:* A location outside the Activity primary location.

*Financial Coach:* The title used at the AFEC to identify financial instructors and counselors.

*Financial Literacy/education:* For this study is defined as the ability to acquire, understand, and judge the relevant information necessary to make financial decisions while aware of financial consequences (Mason & Wilson, 2000).

*Financial services industry (FSI):* Organizations providing consumer financial products and services (CFPB, 2013b).

*e-discussions:* Conversations held utilizing electronic media over computer networks (UNICEF, 2015).

*e-Participants:* Individuals that participate in research or studies using electronic media services (Diplo, 2011).

*Intelligence Community (IC):* A general term that relates to government organizations that deal with National Security Intelligence matters (Director National Intelligence, 2015).

*Methods triangulation:* An analysis approach that combines comparing and integrating diverse collected data, such as qualitative and quantitative (Patton, 2002).

*Microsoft© Excel Spreadsheet:* Software based spreadsheet used to capture, record, and perform calculations related to data collection and analysis (Microsoft, 2016).

*Open source:* Term used to describe information that is legally publicly available (PCWorld, 2016).

*Security Office:* The Activity (pseudonym is used due to the classified nature of the site) office that is responsible for reviewing all communications, including written materials. They are responsible for reviewing and authorizing the release of information, based on Department of Defense (DoD), IC, and Activity policy. The office determines what can be released to include contents of releasable materials and documents.

*Young adults:* For the purpose of this study, individuals between the ages of 21 and 26 years old.

### **Assumptions and Limitations**

The following four key assumptions have been identified in this study:

1. All young adults have the capacity to learn finance-related subjects.
2. All young adults can benefit from financial literacy, which will assist them in becoming self-reliant and positively affect their wellbeing.
3. All young adults need access to financial educational programs that will aid in changing negative financial behaviors.
4. Methodological assumptions were addressed by the utilization of an outcome-based evaluation case study with a participatory oriented strategy, coupled with a convergent criterion-related validity (Fitzpatrick et al., 2011; Merriam, 2009; Royse, Thyer, & Padgett, 2010; Schalock, 2001).

The following eight key limitations have been identified in this study:

1. The principal researcher's overseas location.
2. Geographic distance to the research site.

3. Research facilitator's field of work requires a certain level of anonymity.
4. Limited resources (budget).
5. The anonymity of the organization research site.
6. Participants' work schedule and responsibilities.
7. Research facilitator is heavily dependent on electronic media to conduct data collection and maintain contact with research participants.
8. Study limitation for generalization

The study process consisted of multiple *moving parts* that required meticulous attention to detail. This was because each step and phase of the case study was critical to maintaining a high level of reliability and validity. After all, the human instrument has shortcomings and biases that might have an impact on the study. It is difficult to eliminate these biases or *subjectivities*, so it is important to identify them and monitor the ways they may shape the collection and interpretation of data (Merriam, 2009). The data collection for this case study consisted of the utilization of e-questionnaires, focus groups, interviews, and secondary data collection such as demographics and financial education statistics. The contact with stakeholders and participants was conducted by email; this included the interview, focus group, and questionnaire. This was required due to the research facilitator's overseas location. The data collection instruments were utilized in a sequential manner; for example, the questionnaire was sent first, and that was followed by the focus group and interviews. The process utilized by the research facilitator took advantage of the case study and action research approach, which provided the flexibility to address the case study subject utilizing multiple methods and tools.

The utilization of methods triangulation strategy provided a diverse manner of viewing the problem, adding credibility, and increasing confidence in the findings and conclusion (Patton, 2002). Additionally, the improvement of evaluation and the mitigation of assumptions and limitations consisted of an approach that placed an importance on stakeholders and participants' involvement in the planning and execution of data collection. Collaboration through the case study also increased decision makers' understanding of and commitment to change (Schalock, 2001). The researcher paid due caution during data collection by keeping constant contact with stakeholders and participants and by spending the time to ensure that questions and responses were fully understood. Further, methods triangulation was utilized to reinforce reliability and validity. The research facilitator utilized methods triangulation as a springboard to maximize the reliability and validity of the case study data collection, analysis, and findings (Golafshani, 2003; Patton, 2002).

The study's complexity, limitations, and nuances of the selected position increased the self-awareness that assists in maintaining focus, respect for participants, and objectivity throughout the research (Merriam, 2009). As a result, a constructive professional relationship was developed with the AFEC stakeholders and counselors, minimizing the limitations. Other limitations that had to be surpassed during the case study included research facilitator bias and findings generalization. The research facilitator addressed bias by critically examining outcomes with stakeholders (Herr & Anderson, 2005). Despite the variability and complexity produced by social programs that tend to be explored as a case study (Merriam, 1998; Rossi, Lipsey, & Freeman, 2004), the unit of analysis for current study created a limitation for generalization.

## Nature of the Study

A combination of outcome-based evaluation (Schalock, 2001) and case study approach (Merriam, 2009) was used within the cyclical action research framework (Stringer, 2007) to address the purpose of the study. Action research is based on the purpose of inquiry to find an appropriate solution for a particular phenomenon. It provides the means to engage in a systematic inquiry of investigation that creates an appropriate way to resolve a phenomenon and evaluate if it is effective (Stringer, 2007). Action research provides a comprehensible yet powerful framework that enables the research facilitator to initiate inquiries in a straightforward manner and build greater details into procedures as the complexity of subject increases (Anney, 2014; Herr & Anderson, 2005; Stringer, 2007). The utilization of the OBE approach provided the vehicle to discover new knowledge, identify action-oriented outcomes, increase the understanding of the research subject, assist in isolating irrelevant results, and provide a platform to execute a rigorous research methodology (Schalock, 2001). The study used a methods triangulation model with a convergent parallel analysis design that served as a framework for the data analysis (Patton, 2002; Stringer, 2007).

The use of convergent analysis provided the means to merge collection and analysis of qualitative and quantitative data during the Look and Think phases of the study (i.e., directly comparing and contrasting statistical results with findings for confirmation and validation purposes). Additionally, the implementation and utilization of a collective approach provided a level of independence that, when coupled with stakeholders' close collaboration, enabled the ability to identify the program's theoretical applications and impact. It also expanded stakeholders' program knowledge base and motivated

transformation and practice improvements (Creswell & Clarke, 2011; Greenwood & Levin, 2007; Herr & Anderson, 2005).

### **Conceptual Framework**

The conceptual framework of this study revolves around the interaction between the systems, financial literacy education, and profound knowledge management theories. The general systems theory and the theory of profound knowledge are self-reflective. They propose that organizations' programs have interdependent processes that cannot operate independently of one another (Dawson, 2007; Clements, 2011; Hammond, 2010; von Bertalanffy, 1968). The financial literacy education theory provided a foundation to expand understanding of the organizations' interdependencies and outlook. By extension, the conceptual framework assists in guiding this case study with the intent of producing findings that contribute to the improvement of the AFEC financial literacy program. Following is a brief discussion of the theories.

*Financial Literacy Education Theory:* Financial literacy education theory demonstrates that financial knowledge and skills for managing personal financial resources can lead to a lifetime of financial wellbeing (Chang, 2005; Hung, Parker, & Yoong, 2009; Lyons, & Neelakantan, 2008; President's Advisory Council on Financial Literacy (PACFL), 2009; Rossi et al., 2004; Smith & Frederickson, 2003).

*General Systems Theory and Theory of Profound Knowledge Management:* The general systems theory and the theory of profound knowledge management are self-reflective. They propose that organizations' programs have interdependent processes that cannot operate independently of one another. To achieve success, the system is dependent upon the managers' and members' ability to balance each organization's processes to operate

as a single unit, (i.e., a system) (Berry, 2011; Chen, 2005; Clements, 2011; Dawson, 2007; Jorgensen, 2007; Rainey, 2009; von Bertalanffy, 1968; Weckowicz, 2000).

*Research Paradigm:* The study program theory provided the logic that connected the program activities to the intended outcomes and the rationale for why it does what it does. The program theory also provided a vehicle used for the reflection of assumptions concerning the cause of the phenomenon and spotlighted a feasible approach to resolving the problem at hand (Rossi et al., 2004). By extension, it contributed to the improvement of the AFEC financial literacy programs for the young adults serving the Activity. Figure 2 presents a visual conceptual representation of the study interaction between the theoretical, methodology, OBE approach, and the AFEC and the Activity members. Figure 2 illustrates an overview of the relationship between the theoretical framework, the methodological approach, and the study, the AFEC, and members' interdependency and interaction.

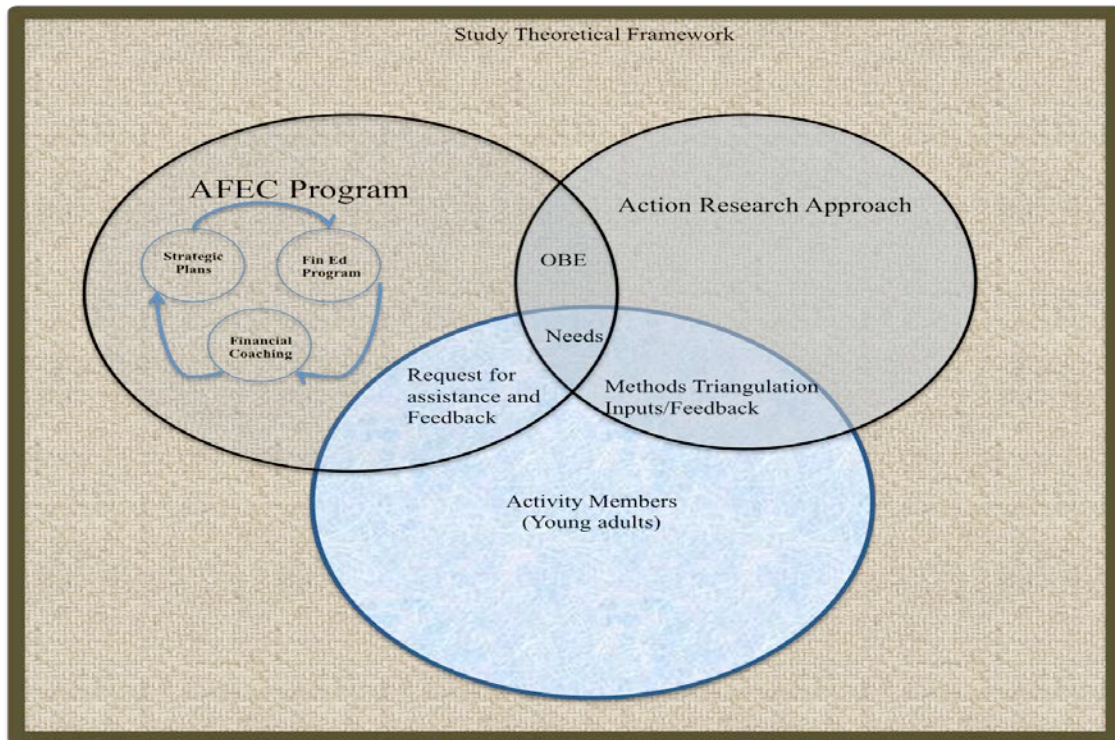


Figure 2. Conceptual representation of study relationships.



## **Summary and Organization of the Remainder of the Study**

This chapter provided an overview of the action research project to address the subject matter, young adults' financial literacy knowledge gap, organizational background, and the study approach towards a systematic and convergent analysis to determine if the AFEC program met young adults' expectations and needs. In the following chapter provides a review of the available literature with the purpose of providing a balanced viewpoint and logical causation that led to this study. Chapter 3 provides a detail description of the methodology in terms of research design, the justification for the sample selection, instrumentation used, data collection processes, data analysis procedures, and ethical considerations. Chapter 4 includes details of the findings and emerging themes. Chapter 5 discusses whether the study addressed the problem and the implications therein, as well as the conclusions and recommendations for future research.



## **CHAPTER 2. LITERATURE REVIEW**

### **Overview**

The purpose of this study is to investigate and discover the perceived shortcomings of the financial literacy program. It aims to expose methods that can improve the program, expand the subject knowledge base and program outlook, and validate the need for continued funding and support for the program. The study utilized a framework that coupled the OBE Case Study with the methods triangulation, focused evaluations, the general systems, profound knowledge, and the financial literacy education theories. This chapter presents a compilation of existing field knowledge related to young adults' financial knowledge and needs. It also combines theoretical and methodological approaches to corroborate the relationship between knowledge and the theories. This summation of approaches facilitated the review of current knowledge and assisted in isolating gaps in the literature (Schalock, 2001; Smith, 2003; Stringer, 2007).

### **Organization of the Review**

This OBE case study approach is utilized to further expand knowledge in the field of young adults' financial literacy, financial literacy programs, and financial knowledge gaps. It provides a systematic process utilized to assess the extent of a program's shortcomings or achievement of results. OBE also helps organizations focus on program purpose and probe program effectiveness (Boguch, 2000). OBE also utilizes a user-centered approach to evaluating program services, explains the ways in which they address customer needs, and identifies changes to improve processes to serve customers' requirements and needs (Rubin,

2004). A conceptualization map was developed to illustrate the interaction between the case study theoretical foundations and action research practical concepts. Figure 3 provides a visual representation of this case study conceptualization map. The principles of the general systems theory and theory of profound knowledge formed the case study's theme foundation. The financial literacy education theory provided the focus that guided the analysis.

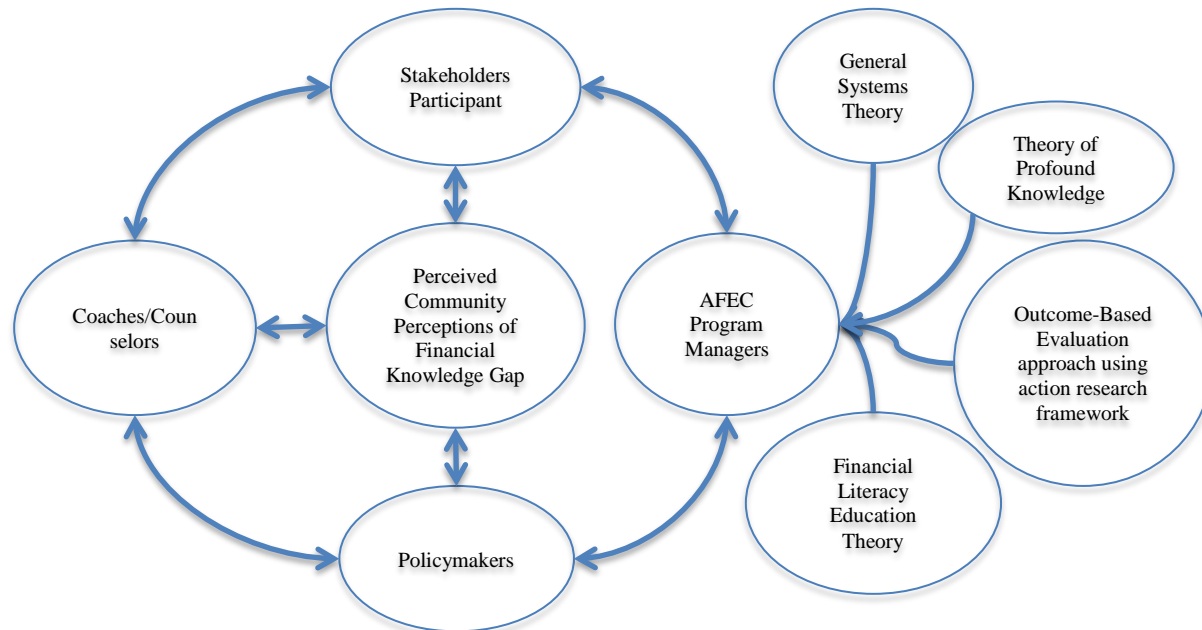


Figure 3. Conceptualization Map of OBE approach and action research case study framework.

The literature review was partitioned into:

- Description of strategy used during literature search.
- Background of financial literacy programs.
- Theoretical framework of the research.
- Review of research and methodological literature.
- Compendium of findings, gaps in subject matter literature, and responses from critics.
- Chapter summary and conclusion.

## Strategy Used for Searching the Literature

The literature search unveiled a bulk of studies and scholarly works that promulgated the importance of financial literacy and the negative effects of financial literacy gaps on individuals' and communities' well-being (Gerardi, Goette, & Meier, 2010; Lusardi & Mitchell, 2011; Mak & Braspenning, 2012; Mandell & Schmid Klein, 2009). No specific study, however, was found that addressed young adults and stakeholders working within the IC that focused on exploring perceived financial program shortcomings, program effectiveness, or the ways in which a collaborative effort can help to improve programs. Therefore, a comprehensive two-pronged, focused, and systematic search strategy was utilized to promote a reliable search technique and review. The focused review approach provided the organizational scope and direction (Glatthorn, 2005), and the systematic review approach provided the level of rigor (Hemingway & Brereton, 2009).

Multiple databases and websites were utilized to further promote study reliability, rigor, and focused scope, including the American Banking Association, American Financial Reform, Clark, Lytle and Gebuldig, CLPblog.org, Public Citizen's Consumer Justice Project, Consumer Financial Protection Bureau (CFPB), ERIC, GAO, Greenling Institute, Law for Change, National Association of Mortgage Bankers, Organization for the Economic Co-operation and Development (OECD), ProQuest, the Sunlight Foundation, the *New York Times*, the *Wall Street Journal*, the *Washington Post*, Yale University, and the Wiley OnLine Library. These resources produced a plethora of articles, studies, and publications, including more than 200 related articles and studies. To further narrow the scope of the search and assure the validity of the resources, the biography and references of professional articles and studies were used to validate the scope and depth of knowledge base material.

For this focused and systematic search review, close attention was paid to peer-reviewed articles published between 2000 and 2016 to include government and private-sector material. In particular, the systematic review was utilized to examine scholarly articles and subject matter, focusing on the theoretical propositions offered and ensuring no critical issue was overlooked (Rossi et al., 2004). Integral to the review process, articles and literature had to meet the following requirements:

- Relevance to the phenomenon of the study.
- Descriptiveness in nature and associated with the financial field, and financial education-related subjects.
- A focus on heuristic research related to financial education and literacy.

The literature review revealed a gap in the current literature. No study was found to cover the IC community or young adults as members of the IC and their financial knowledge needs.

*Scope of the Literature Review:* The scope of the literature review was not intended to assess the validity of the case study theoretical approach. It was instead intended to support the need of young adults to be financially knowledgeable and demonstrate how the financial literacy program is critical to closing the financial knowledge gap. This case study focused on young adults as members of the IC and their financial literacy requirements and needs. The literary resources utilized for this study further highlight interdependencies that validate the utilization of methods triangulation.

### **Historical and Philosophical Development**

In the United States, policymakers sponsored various financial literacy programs that dated back to the 1950s, when several states began mandating the inclusion of personal

finance, home economics, and other financial-related education subjects into schools' curriculum. Even the private sector had programs that promoted some degree of financial education, such as the Junior Achievement and the Council for Economic Education (Hastings et al., 2012). The congressionally mandated Financial Literacy and Education Commission (FLEC) incorporated 22 federal entities, appointing the U.S. Secretary of the Treasury as the chairperson. One of the commission's principal objectives was to develop a national strategy that promoted a unified financial literacy and education strategy (U.S. Department of the Treasury, 2012). Even the creation of the FLEC, however, accomplished little to mitigate the citizenry's widespread lack of financial literacy. The problem is further aggravated, as in the past two decades, individual interaction with financial market offerings has increased; in turn, this has greatly increased each individual's exposure to financial risks. Further, the liberalization of regulations and the 2007 economic crisis amplified the dangers that people face, as they lack the financial knowledge and understanding to handle the financial risk. In fact, financial literacy has far-reaching consequences for the overall economy (Jappelli, 2010).

In "Financial Literacy, Retirement Planning, and Household Wealth," Alessie, Lusardi and Van Rooij (2008) revealed that the relation between financial knowledge and wealth contributed to individuals' well-being, market stability, and good policymaking. The lack of financial literacy fosters an environment favorable to deceitful financial practices, and a financially knowledgeable population prevents individuals from becoming involved in questionable financial products (Alessie et al., 2008; G8, 2006). For example, a 2010 article by Martin and Powell from the *New York Times* pointed out that Attorneys General of Arizona and Nevada filed a lawsuit against the Bank of America for allegedly engaging in an

extensive fraudulent practices to mislead customers with dishonest promises regarding their eligibility for modifications on their home mortgages. This is a good example wherein consumer education and bank oversight could have prevented a lawsuit that cost millions and tarnished the image and trust in a company for many years to come. During a speech to the Federal Reserve Board (FRB), Bernanke (2006), pointed out that financial knowledge is a must for individuals, as current financial services are increasingly complex. He further expounded on this by assessing that informed individuals are better prepared to make decisions that ensure individuals' economic well-being.

This was also noted by multiple research facilitators and practitioners, which had documented in their findings the subjects related to the poor financial decision-making prevalent among citizens (Cross, 2010; Comptroller of the Currency, 2011; Gutter & Copur, 2011; Kempson, 2009; Levin, 2012; Lusardi et al., 2010; Lusardi, Michaud, & Mitchell, 2013; U.S. Department of the Treasury, 2012). Furthermore, financial literacy and education field literature continues to spotlight a fundamental need for change that was rooted in the proposition that young Americans are indeed poorly equipped to properly make appropriate financial decisions (Lusardi et al., 2010; Mandell & Klien, 2009; National Foundation for Credit Counseling and the Network Branded Prepaid Card Association, 2012; Slaughter, 2006). Mishkin (2008) expanded on this subject in a speech provided at the Third National Summit on Economic and Financial Literacy presented to the Federal Reserve in Washington D.C., where he emphasized that the most effective way to help consumers was to empower them with knowledge. Financial literacy is perceived to be the most knowledge-based area to empower consumers, as it can improve individuals' economic decision -making. He further mentioned that it was the Federal Reserve view that financial education promoted a positive

impact on the broader economy, as a better-informed citizenry was more likely to make fewer risky economic decisions, which would diminish the negative impact on the economy (Mishkin, 2008).

Additionally, the GAO, Mandell and Klien, Levin, and Lusardi mentioned the role that weak government regulatory consumer protections play in the failure to provide adequate consumer assistance and financial safeguards (GAO, 2014; Levin, 2012; Lusardi et al., 2010, 2013, 2014; Mandell & Kline, 2009). Due in part to the 2007 economic crisis, policymakers pushed for the creation of the Consumer Financial Protection Bureau (CFPB) as part of the Dodd-Frank Wall Street Reform and Consumer Project Act. As a result, one of the principal mandates for the CFPB was to establish an Office of Financial Education, which is responsible for the development of a strategy to improve consumer financial literacy (Hastings et al., 2012). The main challenge and obstacle encountered by the CFPB was the lack of implementation support from the financial and banking sectors, which did not buy in into the concept and the development of the program. This in turn placed the CFPB in a position in which it was unable to collaborate with financial organization stakeholders. The lack of a collaboration environment was in part due to the manner in which the original bill was pushed through the Congress, mainly by a small group of political consumer advocates.

Thus, the policymakers failed to properly assess “the ‘power’ or ‘influence’ of [various] stakeholders, [which] provides information about the magnitude of political and organizational resources available to each stakeholder” (Dunn, 2008). Further aggravating the implementation was the CFPB purpose and mission, which entail protecting and educating consumers and taking action against companies by making rules more effective, enforcing the rules, and empowering consumers to take control over their economic lives

(CFPB, 2014). The GAO study, however, revealed that the CFPB had little impact thus far in closing the financial literacy gap (GAO, 2014).

In an article in *The Economist* (2008) highlighted from “The Ascent of Money,” Niall Ferguson pointed out a well-established fact: a significant percentage of the population in the English-speaking world is financially illiterate. Further, *The Economist* (2008) remarked that many Americans leave schools with little financial knowledge. It also mentioned findings from a State University of New York study, which found that from a sample of high-school students ages 17 to 18, less than half could correctly answer questions dealing with many aspects of personal finance. By interpreting the information from *The Economist* article, field research, and other quoted studies, the researcher can highlight the lack of a systematic and holistic approach to financial literacy. The current approach to financial literacy lacks a well-defined uniform purpose and goal. This is reflected in the lack of recognition by policymakers and researchers that there is a relationship between the program’s purpose and population needs that are addressed by holistic long-term strategies. For example, the theory of profound knowledge clearly expresses that a lack of well-defined purpose, particularly long-range purpose, is common in organizations. Emphasis is instead placed on short-term and quick-fix solutions. Even if a long-range strategy exists, the principal organizational leadership approach is designed for short-term results that ignore long-term solutions (Berry, 2011).

Therefore, the financial environment continues to be a tumultuous and precarious one that places all Americans, particularly young adults, in the crosshairs of financial disaster. The phenomenon was further aggravated by the continued push by policymakers for the deregulation of financial market instruments that have contributed to an increase in the



complexity of the financial marketplace. This further expanded the financial literacy gap and in turn added to a set of incredible challenges for American consumers (Letkiewicz, 2012). The financial challenges are further exacerbated by the number of decisions that individuals have been saddled with concerning investments related to their retirement in both the private and public sectors (Hastings et al., 2012).

It is therefore critical for financial literacy practitioners to know how well informed people are at the start of their working lives. For this purpose, various research facilitators and practitioners have investigated financial literacy using data from the JumpStart Coalition for Personal Financial Literacy (2008) and the National Council on Economic Education (2005). These sources were used because of their extensive databases concerning young people and the extent of their knowledge prior to entering the workforce. Regrettably, the high school students' results reflected a failing financial literacy grade (Mandell & Klein, 2009; National Council on Economic Education, 2005), which was not much different than the results reported for college students (Chen & Volpe 1998; Shim et al., 2010).

The young adult population is especially affected because financial decisions made early in life, including education and investment opportunities, can directly affect one's personal well-being and future economic growth (Mandell & Schmid Klein, 2009). The extent of the financial literacy problem is not confined to individuals' self-interest, as it can have implications on the larger society. An effective democratic system of government and viable economic growth depend on a citizenry that is well-educated and versed in the financial management of the populace (Greenwood & Levin, 2007; Lusardi, Mitchell, & Curto, 2010).

These factors, however, still only address one-dimensional causation and not a multi-dimensional causation as the system approach does. The lack of financial literacy is extremely problematic, as it renders individuals unable to take proper care of their own or their families' welfare. Furthermore, old fashioned hands-on learning is not a feasible means for developing financial knowledge. This furthers consumers' dependency on the limited institutional knowledge and their own numeracy skills (Hastings et al., 2012), and this is a formula that leads to financial failure. One example of this recipe for financial disaster is represented by the current total student loan debt in the United States, which by 2015, had reached the staggering \$1.2 trillion mark. Worse yet, most college seniors graduating in 2015 carried an average of \$35,250 in debt (MarketWatch, 2015; USAToday, 2015).

This is an unacceptable burden that, coupled with other debt and a soft employment environment, places young adults in a struggling position that impacts their well-being, and as a result, the nation's economic future (Draut, 2007; Federal Reserve Bank of San Francisco, 2010; Letkiewicz, 2012; Project on Student Debt, 2011). CNBC, and *U.S. News and World Report* revealed a new reality: young adults need help now, not later. They are being placed in an environment in which they cannot afford to be financially illiterate (CNBC, 2015; *U.S. News & World Report*, 2014). Young adults must build strong financial literacy foundations required to survive to the present and to have a prosperous future. The argument that consumers, in particular young adults, are provided with all the financial information they need to make the *right* decisions is misleading. Most financial decisions are much more complex than before the federal government implemented financial sector deregulation.

## **Financial Literacy Education Theory**

Financial literacy education theory demonstrates a need for financial knowledge and skills for managing personal financial resources, which can lead to a lifetime of financial well-being (Chang, 2005; Hung, Parker, & Yoong, 2009; Lyons, & Neelakantan, 2008; President's Advisory Council on Financial Literacy, 2008; Rossi, Lipsey, & Freeman, 2004; Smith & Frederickson, 2003). Financial literacy is a viable option, but not the only one. Without considering other cognizant requirements, the effectiveness of financial literacy can be called into question (Dvorak & Hanley, 2010; Huston, 2010; Kozup & Hogarth, 2008; Letkiewicz, 2012; Lusardi, Mitchel, & Curto, 2009; Sabri, 2011; Willis, 2008). For example, the FSI scope and goals for the financial literacy education programs is widely varied; the majority of programs had goals related to increasing individuals' awareness of specific federal agency mandates or initiatives, as well as to influence behaviors related to financial products.

The FSI viewed financial literacy as closely tied to individuals' financial capability, which is based on the knowledge and skills required to effectively manage financial resources. Empirical data revealed that financial education had increased financial knowledge and improved financial attitudes and behavior, but growing research literature continues to debate the effects of financial education and its impact on behavior (Hung, Mihaly, & Yoong, 2010). Newly available literature provides further evidence that gaps existed in the past literature, so it was imperative to conduct this study. This was further supported by GAO findings, which also identified a gap in the available financial literacy field literature. This provided and validated the opportunity for further scrutiny to disentangle the causation of the gap between current financial literacy programs, literature, and the

financial literacy needs of young adults.

### **General Systems Theory**

As with every new idea in science, the systems concept has a long history. The term *system* itself was not emphasized, but the history of this concept includes many illustrious authors. The idea of general system theory was first introduced by von Bertalanffy (1968). The general system theory derives from a general definition of the system, which considers the complex interaction of all components into the analysis of a phenomenon. This correlation is due to entities that can be considered *systems* that are composed of complex elements in interaction; therefore, general system theory is a general science of *wholeness* (von Bertalanffy, 1968).

Concerning this study and the general system theory, the current financial literacy research, literature, and scholarly work approach the lack of financial knowledge through a narrow theoretical framework. The available literature on this subject concentrates on the lack of knowledge or the financial behavior of individuals (Levin, 2012, Lusardi et al., 2010, 2014). The aforementioned studies, however, did not observe the phenomenon from a systems approach. They examined the phenomenon as caused by a single causation: the individual's lack of financial literacy. This study utilized the general systems theory, which offered a multiplicity of approaches and trends. These different approaches, models, and theories offered different aspects, which were complementary and provided a manner to view things that could have been previously overlooked. Thus, like other scientific theory of broader compass, general systems theory is connected with and tries to give its answer to enduring problems (von Bertalanffy, 1972). In summary, the necessity and feasibility of a

systems approach result from the need to isolate a system or *organized complexity* consisting of parts *in interaction* (von Bertalanffy, 1968).

This study exposed that no individual action or lack of action is the root cause of the general systems phenomenon. Thus, no individual operates independently because each individual operates interdependently to his or her environment (Hammond, 2010). The basis of this general systems phenomenon can thus be approached utilizing theories that explore financial knowledge management systems and skills for managing personal finances. In addition, such general systems phenomenon can be approached from the interdependent system learning processes, such as learning from family, friends, community, work environment, formal education, and personal experiences, which cannot operate independently of one another (Berry, 2011; Guberman, 2002; Hammond, 2010). This study topic was distinctive from previous research because the study's holistic approach utilized the convergence of financial literacy education theory, general systems theory, and the theory of profound knowledge. The convergence of the aforementioned theories underpins the project action research, which by extension contributed to the identification of improvements to the AFEC financial literacy programs for young adults.

### **Theory of Profound Knowledge**

The theory of profound knowledge is a management philosophy grounded in systems theory. It is based on the proposition that organizations are composed of a system of interrelated processes and organization members that form the system's components. The success of all parts within the system is tied to management's capability to maintain a balance of each component of the entire system. Thus, the theory of profound knowledge implies that system improvement depends on continuous study of the organization, and this

cannot be accomplished without the assistance from outside the system (Berry, 2011; Deming, 1994). External assistance is required to assess organizations, as many organizations' management deal with problems long after the problems have occurred. This is due to management's lack of understanding of the day-to-day operations (Stoecklein, 2014).

Deming's (1994) theory of profound knowledge is comprised of four major components that are well-suited to this study's holistic research approach:

- *Appreciation of a system:* Each organization is comprised of interdependent sections and parts. An action by any component can have a negative effect on another component within the organization. To maximize functions, the organization must be assessed as a whole system.
- *Knowledge of variation:* Variations are unplanned changes or influences that can negatively impact the organization's function or products. Individuals' lack of understanding variations could increase the negative impact of a particular variation.
- *Theory of knowledge:* Knowledge is attained with theory. Theory requires prediction, not just explanation. A theory may not be proved right, but there could be a possibility of proving the theory predictions wrong through testing.
- *Understanding of psychology:* To understand the interaction between work systems and individuals, managers must understand that which drives people to learn and accept change, as well as their motivations for doing so (Carder & Monda, 2013).

## Theoretical Perspective

### Reassessing Financial Literacy

The aim of the general systems theory is to analyze complex problems under the premise that all components of the problem must be studied (i.e. organization), not just the parts and not in isolation (Guberman, 2002). The principal concern of the general systems theory deals with the complexity and approaches to analyzing the interactions between an organization's parts. The general systems theory cuts across many disciplines, and compliments the traditional scientific paradigm by providing a holistic view of the system (i.e., organizational functions) and its complexity. This in turn provides the foundation to further expand observations of the organization and stakeholders' synergetic relationships and needs (Yurtsevena & Buchananb, 2016). Thus, Von Bertalanffy's (1968) general systems theory model provides an approach to examining cause and effect relationship that exists between parts of an environment, (i.e., organization). Consequently, the more knowledge obtained from the interaction of the organization's parts, the better informed decisions can be made (Friedman & Neuman-Allen, 2010).

The theory of profound knowledge utilizes the general systems theory as its foundation. The principle of the theory relates to an organization's composition of interrelated processes and components that make it a unit dependent upon the interrelationships between various components (i.e., a system). Further, the organization is dependent upon each component working in harmony to fulfill its customers' requirements and needs. The system cannot know itself nor is it self-aware of how useful or effective it is unless it utilizes outside organizational sources to assess, evaluate, learn, and implement change (Berry, 2011).

This study theoretical approach is a holistic one, so subject matter complexity and organizational interactions were analyzed to understand gaps in the delivery of the financial literacy programs. This assisted in reassessing financial literacy and the financial service industry environment. Thus, it was found that the prevalent United States government regulatory model is for deregulation of financial markets. This model encourages the financial service industry (FSI) to produce products that are complex to the point where many consumers are unable to fully understand the implications derived from the purchase of such products. In response, policymakers have correlated a lack of consumer financial literacy with the lack of financial product understanding. Therefore, the policymakers have adopted an approach in which financial literacy is believed to be the solution to the problem (Williams, 2007; Willis, 2008). This, however, could be misleading as the incentive to acquire financial knowledge depends on economic results, whereas increased knowledge raises the expected economic gains, the total value of the investment depends on the number of funds available to which the improved return can be applied (Willis, 2009).

The study's theoretical approach purpose was to develop a clear understanding of what it means to be financially literate, identify program gaps, improve opportunities, and analyze the ways in which financial education programs can improve participants' long-term financial well-being.

### **Global Awareness of Financial Literacy**

Global awareness of the need for financial literacy started circa the 1950s, when many countries started researching issues related to the field of home economics. Throughout the years, the financial literacy subject, labeled as *home economics*, gained greater prominence in the field of education (Graham, 2013). The need for citizens to study financial



literacy continues to be a global concern; the magnitude of consequences due to the lack of financial literacy is widely acknowledged. For this reason, the OECD created the International Network on Financial Education (INFE), which is composed of 73 international members, including Armenia, the Czech Republic, Estonia, Germany, Hungary, Ireland, Malaysia, Peru, Poland, the U.K., and South Africa (Atkinson & Messy, 2011). The global perspective continues to be that financial literacy is the process of gaining knowledge and skills that enable individuals to make effective and efficient financial decisions (Cohen, Manion, & Marion, 2007). The global champions of financial education have assumed that the development of programs is key to tackling and resolving the lack of financial literacy. There are other perspectives, such as the one presented by the Ontario Ministry of Education, in which financial knowledge is perceived as an important skill required for people to understand the relationship between local economics and the global economy. Most financial literacy groups, however, do not support the connection between financial global understanding and the practice of responsible citizenship (Arthur, 2012).

As debt levels continue to rise and individuals' access to funds continues to decline, world policymakers have become more concerned with individuals' financial knowledge and planning. Evaluating financial education programs, however, continues to be a challenge (Cakebread, 2009). By 2013, the OECD and G20 President issued a report on advancing national strategies for financial education. The report detailed the progress by the world's major economies in implementing national strategies for improving financial education. The goal of the programs was not clearly defined, so the studies could not provide clear conclusions concerning their effectiveness.

In Australia, a survey reflected that more than 60% of the people surveyed acknowledged understanding compound interest, but only 25% answered the question correctly (O'Connell, 2007). Supporting this finding, Alessie et al. (2007, 2008) found that many countries exhibit a rather low level of financial literacy, and that many of the study respondents reported to be knowledgeable concerning financial matters, but in fact did not possess the necessary financial knowledge. The survey's findings reflected that financial literacy among individuals with higher income and wealth was higher than with individuals with lower incomes and wealth. Therefore, financial literacy could be correlated to economic development and financial development (Beck, Demirgü-Kunt, & Levine, 2009), as international comparisons suggest that individuals' financial literacy improves with the increase of capital and financial reform (Alessie, Lusardi, & Van Rooij, 2007, 2008).

The financial education subject continues to be evaluated, but there is little global consensus concerning ways to better evaluate existing financial literacy programs. This case study utilized an evaluation model that increased the field knowledge. It also positively influenced attitudes regarding the importance of financial literacy, promoted the sustainment of program funding, and reflected on the negative impact that the lack of financial literacy has on individuals and communities.

### **Methodological Framework of Action Research**

Action research is more than a process; it is a powerful participatory approach that provides a practical, purposeful method to explore complex organizational interactions in search of needs, shortcomings, and improvements (Stringer, 2007). To assist in the search for organizational improvements, the action research model incorporates:

1. Collected data to verify problem.

2. Systematic use of feedback.
3. Open discussions of findings, verifying results, and promoting ownership of process.
4. Joint development of solutions and plans (Shafritz et al., 2009).

Action research is a deeply involved process, so it is well-suited for identifying and solving educational problems (Glatthorn, 2005), such as the one for this case study. Action research also provided the platform to exploit the collaborative approach, which facilitated the processes of identifying and solving the educational problem (Glatthorn, 2005). It does so by providing the methodology that recognizes that interaction with stakeholders and participants as a necessary and critical part of the research process (Stringer, 2007). Therefore, action research provides a flexible approach in which the problem, needs, and subjects are not tied to specific process or methodology. In action research, the framework and methodology are adapted to each unique requirement utilizing a collaborative investigation that results in the discovery of findings, benefiting the organization and its stakeholders (Stringer, 2007). In summary, action research is value laden, providing research facilitators and stakeholders with ways to inquire about and solve problems that improve organizational processes by identifying these improvements or solutions when they are not self-evident (Herr & Anderson, 2005).

### **Outcome-Based Evaluation Case Study**

Service programs such as the ones dealing with financial literature must be evaluated to assess program effectiveness, possible need for improvements, and to conduct an objective assessment concerning the worth of program. Each social program must have a positive impact in resolving problems, so an outcome-based evaluative research should be undertaken to discover the program's effectiveness (Royse et al., 2009; Schalock, 2001). OBE focuses

on the difference a program, service, or activity makes on the lives of its participants. An outcome is a desired change in an end user's knowledge, skills, behaviors, attitudes, condition, or status (Library Support and Services, 2016). The Institute of Museum and Library Services defines the OBE as the measurement of results that identifies observations, which can credibly demonstrate change or desirable conditions. OBE also systematically collects information regarding indicators and uses that information to identify the extent to which the program does or does not achieved its goals (IMLS, 2016).

The effectiveness of an outcome-based evaluation is based on the implementation of 10 key areas that can be utilized to effectively analyze an organization:

1. Collaboration with stakeholders to determine needs.
2. Selection of outcomes that are easily understandable and persuasive.
3. Assurance that measurements are reliable and valid.
4. Matching of evaluation type and methodology to program needs and resources.
5. Building of strong theoretical and conceptual models.
6. Emphasis on shared interest in program.
7. Utilization of multiple methods and views.
8. Adherence to rigor and relevance.
9. Differentiation between short, intermediate, and long-term outcomes.
10. Discernment that the most important tool is conceptual; not statistical (Schalock, 2002).

Evaluations can be defined as the ability of judging entities to determine its value. They can also be used to assess programs or services to determine if the expected results were achieved or if the program produces tangible results (Texas Center for Digital

Knowledge, 2009). In particular, OBE is an evaluation approach that provides a systematic manner to assess if a program achieved its intended objective or goal. OBE focuses on the stakeholders and their roles to satisfy target population needs. The OBE's forte is that the evaluation process is established with program stakeholders' participation, providing stakeholders' ownership over the outcomes and results (Boguch, 2000; Voulker-Morris, 2004).

### **Response from Critics**

#### **Disadvantage of Outcome-Based Evaluation and Action Research**

Critics point out that it is important to understand that disagreements between research facilitators and stakeholders can disrupt evaluation, and factions can arise impacting control over research (Royse et al., 2010). Emphasis must be placed on the importance of developing a close collaborative environment with stakeholders, as this will help *figure out what works* (Patton, 2002). Therefore, the guiding principal for the research facilitator is to seek the maximum involvement and buy in from the stakeholders for supporting and participating in the research (Royse et al., 2010).

Both OBE and action research approaches involve the description, information collection, interpretation, and value judgment (Schalock, 2002) that permit inquiries into the selected issues in great depth, and thus they contribute to the breadth and depth of the inquiry (Patton, 2002). OBE and action research can be used to demonstrate good stewardship of resources and program accountability (Institute of Museum and Library Services, 2016). The crucial thought is that the research facilitator must analyze received notions of improvement in terms of who ultimately benefits from the actions undertaken (Herr & Anderson, 2005).

## Conclusion

The examination of the literature revealed a number of research gaps that demonstrated an opportunity and need for the use of holistic approaches and theories as frameworks to make the study more effective (Schuchardt et al., 2009). The research field literature also suggested the use of method triangulation to study consumer financial behaviors, which are behaviors that quantitative methodology cannot address (Gutter & Copur, 2011). Gaps in the financial literacy field literature also suggested a need for researching the effectiveness of programs (Hastings et al., 2012). Scholarly works pointed to the need for more research concerning the consequences of the interventions that attempted to teach multiple skills and their effect on multiple behaviors versus the actions targeted at a sole behavior (Fernandes, Lynch, & Netemeyer, 2013). Another issue noted was that most studies use the expression *financial literacy training* to identify a large number of programs that can vary from one-day sessions in the field to one-year classroom trainings. These differences make it difficult to assess the results and compare the consequences of training across studies (Drexler, Fischer, & Schoar, 2014).

GAO, Lusardi, and Levin voiced the need for better research. Articles from leading scholars in the financial literacy field recommended that future research should focus on whether the financial courses are effective and whether classes can be made more effective through the integration of interactivity, enjoyment, and cultural sensitivities (Lyons & Neelakantan, 2008; Mandell, & Schmid Klein, 2009; MarketWatch, 2015; National Financial Educators Council, 2013; Remund, 2010; Sabri, 2011). Regarding program relevance and currency, research facilitators could not conclude that gaps in financial literacy and knowledge are the most important. Rather, they may simply be barriers preventing

individuals from successfully steering through life's financial decisions (McCormick, 2009). On this subject, Cross (2010) pointed out that research indicates that young adults' financial education may not be a panacea for improving consumer finances, but it is critical for increasing young people's decision-making capabilities. Despite Cross's findings, other studies have failed to assert how effective financial education can be. The importance of isolating the effectiveness, coupled with capabilities of financial literacy programs, is critical to the field of study and requires the development of a standard evaluative framework (O'Connell, 2007).

To address these key assumptions, the methodology used for this study is an OBE case study with a participatory oriented strategy, coupled with a convergent criterion-related validity and various methodologies (Fitzpatrick et al., 2011; Merriam, 2009; Royse et al., 2010; Schalock, 2001). This study pursued the previously mentioned gaps and deficiencies highlighted by scholarly works in the selection and utilization of theories. These theories, including the utilization of financial literacy education, profound knowledge and general systems theories, demonstrated that financial knowledge and skills for managing personal financial resources can improve subject matter knowledge that in turn could lead to a lifetime of financial well-being (Chang, 2005; Hung, Parker, & Yoong, 2009; Lyons & Neelakantan, 2008; President's Advisory Council on Financial Literacy, 2009; Rossi et al., 2004; Smith & Frederickson, 2003).

### **Chapter Summary**

The holistic approach utilized in this study literature review highlighted the gap in the literature addressing young adults' financial literacy needs. A myriad of studies evaluating the phenomenon's causes and solutions exists, but none adopted a holistic approach or studied a

specific holistic program, such as the AFEC program. The literary review bespeaks of the complexity of the phenomenon and the need for action. Additionally, the available literature, which points to no single approach, is viable in addressing young adults' financial literacy needs. Chapter 3 will evaluate and present research methods that enabled the study to describe the methodology. It will do so in terms of research design, scope, sample selection, instrumentation used, data collection processes, and data analysis procedures, as well as ethical considerations.



## CHAPTER 3. METHODOLOGY

### Overview

The purpose of the case study was to investigate and isolate the shortcomings of the AFEC financial literacy program and how to decrease young adults' lack of financial literacy. This action research case study, therefore, had to address the perceived inherent deficiency of the FFE program. Hence, this chapter addresses the research design, data collection, analysis methodology, implementation details, and the study ethical construct.

### Research Design

The research design strategy followed the composite logic of the OBE case study approach, which was utilized to answer the research questions. Convergent analysis and methods triangulation were used to validate and verify the case study findings (Chen, 2005; Creswell, 2009; Ivankova, 2015; Kusek & Rist, 2004; Patton, 2002; Schalock, 2002). Action research case study approach was the vehicle implemented as a framework to actively focus, investigate, and collaborate with stakeholders and participants. It did so to further understand the phenomenon and to define a viable means to take action to resolve the phenomenon (Merriam, 2009; Stringer 2007).

Stringer's (2007) action research as a framework, the *Look, Think, Act* approach of creating the picture, Merriam's (1998) *judgment phase* of the evaluative case study model, the outcome-based evaluation models of Chen (2005), Kusek and Rist (2004), and Schalock (2001) were incorporated to facilitate suitable data collection for this study. Further, the convergence of the methods triangulation model (shown in Figure 4) was utilized as the data

collection strategy, and the integration of divergent data sources provided the most comprehensive and robust model for this case study (Ivankova, 2015; Patton, 2002; Royse et al., 2010). The utilization of the methods triangulation, action research, and OBE approach from Ivankova (2015), Fitzpatrick et al., (2011), Patton, (2002), Schalock (2001) and Stringer's (2007) model complied with the following study design steps:

1. Assess the AFEC program
2. Develop standards that assess organizational and individual outcomes
3. Collect data
4. Synthesize the information
5. Make a final assessment by comparing alternatives and the program's value.

#### Methods Triangulation

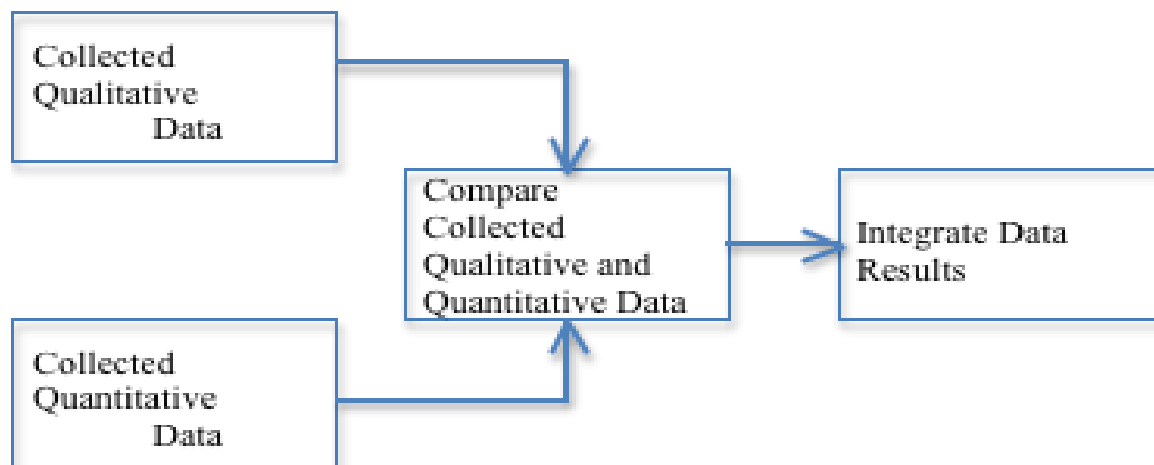


Figure 4. Conceptualization of Patton's Methods Triangulation (2002).

A robust communication strategy was required to facilitate the research implementation. The supporting communication vehicle was composed of a virtual environment that utilized the Activity's secure telecommunications network and the

Internet's open source resources. The use of telecommunications technology (i.e. Internet and telephones) is not a new or unique strategy and has received continued support in literature and scholarly works by practitioners and scholars such as Altschuld (2009a, 2010), Creswell (2013a, 2013b), Fitzpatrick et al., (2011), Merriam (2009), Owston (2007), O'Sullivan, Rassel, and Berner (2008), Persichitte, Young and Tharp (1997), Redlich-Amirav and Higginbottom (2014), Rossi et al., (2004), and Stringer (2007). A number of qualitative researchers continue to utilize face-to-face focus groups format as a qualitative research data collection tool. Thus, the expansion of the Internet and available easy-to-use tools for research makes the online focus groups possible (Hughes & Lang, 2004). Therefore, researchers should consider and plan to exploit the functionality of the chosen online medium and work to minimize its limitation (Clarke, 2000). Even though it is difficult to contrast face-to-face and online groups directly, the concept of both aforementioned focus groups is something that covers a range of practices and variations that could serve the purpose and design and the framework of the research. Thus, the Internet opens new possibilities to utilize data collection tools such as for focus groups, because people who are physically apart can form groups, regardless of distance and time (Murgado-Armenteros, Torres-Ruiz, & Vega Zamora, 2012). The implementation of a virtual environment had no impact on the case study's theoretical or methodological approach.

### **Sample**

The 11 research participants were selected from financial literacy course enrollee lists and represented a cross section of multiple fields of expertise within the Activity young adult population. The participants' age group was distributed between the ages of 21 and 26

years old. The participants volunteered to respond to surveys, questionnaires, and to attend e-focus group interviews.

### **Sampling Strategy**

There are two critical steps within the action research case study planning stages. Step one is the identification of the population. Step two is the selection of strategies that can facilitate an in-depth, information-rich data collection that addresses the research questions (Fitzpatrick et al., 2011; Patton, 1990; Stringer, 2007). The identification of the population and sample size was determined by the use of factors that included the consideration of degree of accuracy, site population, the subject at hand, research questions, research goals, and available resources (Fitzpatrick et al., 2011; Merriam, 2009; Patton, 1990). The study's methodological approach utilized purposive sampling with homogeneous samples. The research target group (i.e., the federal government civilians) was a subgroup of the American population being served by one of the federal counseling and literacy programs. The purposeful sampling provides the strategy toward discovering and selecting the sample, and the homogeneous sample approach defines the representative group from a population for collecting in-depth information and the program's impact (Merriam, 2009; Patton, 1990).

The experiences and conclusions formed during the research investigation depends more on the collected broad-spectrum case information and the observations and the research facilitator's analytical skills than from the sample size (Patton, 1990). The participants' key population and characteristics from the sample group include:

1. Demographics: For this study, the key target population was composed of individuals, in specific, Activity young adults, males and females between the ages of 21 and 26.

2. Inclusion criteria:

- a. Civilian personnel working for the Activity who have participated in the AFEC or were scheduled to participate in the federal financial counseling and educational program.
- b. Males and females.
- c. Participants age range of 21 to 26 years old.
- d. All participants volunteered to participate.

3. Exclusion criteria:

- a. Personnel who were not Activity members.
- b. Personnel on temporary duty.
- c. Individuals who have attended or taken other financial courses.
- d. Military and civilian retirees.
- e. Personnel who do not want to participate in research.
- f. Personnel who were employed by the AFEC program.

Stringer (2007) strongly suggests that in quantitative studies a random selection of participants is acceptable, but for qualitative and action research studies a different approach must be used. Hence, purposeful sampling is suggested as the strategy that included the population that is impacted by the problem or issue. Further, Royse et al. (2010) reiterates the advantages of purposeful samples (i.e. nonprobability sampling). It can provide a sample that gives the research facilitator an insight into sample members' perspectives and behaviors.

### **Participant Contact**

The initial participant contact was coordinated with the lead counselor prior to research facilitator contact. The AFEC lead only released the names of the participants that

expressed interest in participating in the research. Upon AFEC notification, the research facilitator contacted 60 personnel by email. The email contained detailed information concerning the research case study, including the informed consent form and enrollment instructions to participate in research study. Twelve Activity members responded to request for participation. Throughout the study all communications were conducted by email.

### **Criteria for Participants Selection**

The term “concept participant” was used to describe individuals who willingly volunteered to participate, denoting an attitude of collaboration, empathy, and assistance (Merriam, 2009). The participants were selected as the representative group from the general Activity population for collecting in-depth information about the program impact they experienced (Merriam, 2009; Patton, 1990). Participation was open to all Activity personnel who had contacted and/or received services from the AFEC and/or had participated in one of the AFEC programs or were scheduled to participate in the federal financial counseling and educational program. The research target group (i.e., federal government civilians) represented a subgroup of the American population being served by the federal counseling and literacy sponsored program.

### **Informed Consent**

In compliance with federal government’s ethical guidelines, the informed consent form was emailed to each participant (O’Sullivan et al., 2008). The form included all pertinent research information, including information concerning the case study purpose, selection process, timeline, participants’ responsibilities, confidentiality statement, and utilization of collected data and distribution of findings/results. For this study, it was estimated that upon participants’ acceptance, the data collection, analysis, and

implementation would have taken between 3 and 6 months. To ensure anonymity and confidentiality, the participant responses were coded and no names were used other than the identification of the stakeholder's representative for this action research case study.

### **Action Research Framework**

The action research framework foundation follows Stringer's LTA model and OBE, which provides a new understanding and actions to inquire about and find resolutions to a problem. This is possible because action research provides a flexible and practical approach to investigating a specific phenomenon in collaboration with stakeholders (Stringer, 2007). The OBE approach provided the integral part required to identify the indicators that addressed the research questions and clarify the evaluation process (Schalock, 2001).

### **Action Plan Design**

This study utilized Stringer's (2007) LTA approach as the principal plan strategy, where the *look phase* assisted in building the picture in conjunction with Merriam's (1998) *judgment phase* of the evaluative case study model, as well as the outcome-based evaluation models of Schalock (2001). The look phase facilitated the collection of suitable data for this study. The look phase was followed by the *think phase* that, in conjunction with Merriam's (2009) *explanation phase*, focused on the interpretation and analysis of the collected data. The final phase of the plan included the *act phase*, aligned in conjunction with Merriam's (1998) *description phase* of the evaluative case study model. This final phase provided findings concerning the resolution of problems, planning, and implementation of sustainable solutions in the facilitation of strategic planning and financial management.

Action research was utilized to provide an environment that enabled disparate groups of people to work harmoniously and productively to achieve a set of goals (Stringer, 2007).

Further, action research seeks to develop and maintain social and personal interactions that are non-exploitative. It enhances the social and emotional lives of all people who participate (Stringer, 2007) by promoting collaborative inquiry, reflection, and dialogue (Hewitt & Little, 2005). By incorporating the perspectives and responses of key stakeholders as an integral part of the research process, a collaborative analysis of the situation provides the basis for deep-seated understandings that lead to effective remedial action (Stringer, 2007). Action research also provides a venue towards isolating the problems and shortcomings of programs by gathering data at the lowest level and including stakeholders and community members.

Action research provided the methodology, which actively assisted in the search for the root cause of the problem and provided a venue to present solutions based on the stakeholder and community input. Hence, the results of action research are geared to satisfy the true needs of the community, which should help make policy and programs more accountable, efficient, and effective (Patton, 2002; Stringer, 2007).

Positive results are achieved because action research rejects the concept of a two-stage process in which research is carried out first by researchers. Then, in a separate second stage, practitioners apply the knowledge generated from the research. Instead, the two processes of research and action are integrated (French, 2009). Action research provided a venue that identified the actual problem and the theory used to explain and resolve the problem (French, 2009), further providing results that better served the stakeholders and community.



Table 1. Conceptualization of Measurable Actions

Overall Goal:	Utilize an OBE case study framework to contribute to the AFEC betterment. To increase knowledge base, to better develop performance goals, objectives, and strategies that will support continue improvement process into the current program practices.	
Outcome Objectives (Intermediate)	Process Objectives	Critical Program Activities
1. By July 2015, (prior to completion of the AR project initiated), to have examined the perceived inherent shortcomings that have impacted the current AFEC educational program.	Description of Purpose for OBE Case Study (Schalock, 2001) By December 2014, for the stakeholder participants to have participated in relevant aspects of Schalock's (2001), Chen's (2005), and Kusek and Rist's (2004) OBE approach in methods triangulation with the logic of the case study design as described by Merriam (1998), Stake (1995), and Yin (2009, 2011), and as structured within Stringer's (2007) Look, Think, and Act model framework. This Process Objective was intended to gather data that could help exam the perceived inherent shortcomings that have impacted the current AFEC educational program.	Step 1. Research facilitator collaborated with stakeholders and participants to better understand program, define key performance indicators. Due date: December 31, 2014.  Step 2. Gathered baseline data and establish the program's position and measured the program outcomes during analysis phase. Completed: February 27, 2015.  Step 3. Conducted collaborative self-assessment that identified personal shortcomings and biases. Monitored and mitigated biases in collaboration with stakeholders and participants. Completed: March 31, 2015.  Step 4. Collect data: The research facilitator's data collection plan followed Chen's (2005), Kusek and Rist's (2004), Merriam's (1998), Schalock's (2001), and Stringer's (2007) propositions. Completed: May 31, 2015.
2. By September 2015, (prior completion of the AR project initiated), to have explored the extent to which the AFEC program has been effective in advancing the financial knowledge, attitudes, and behaviors of Activity young adults.	Information Collection (Schalock, 2001) By April 2015, for the stakeholder participants to have participated in relevant aspects of Schalock's (2002), Chen's (2005), and Kusek and Rist's (2004) OBE approach in methods triangulation with the logic of the case study design as described by Merriam (1998), Stake (1995), and Yin (2009, 2011) and as structured within Stringer's (2007) Look, Think, and Act model framework. This Process Objective was intended to gather data that should assist in exploring the extent to which the AFEC program had been effective in advancing the financial knowledge, attitudes, and behaviors of Activity young adults.	Step 1. Data collection and analysis was conducted in collaboration with program stakeholders. The data was organized and segregated into relevant or irrelevant categories in relation to the research question and objectives. Relevant data was sorted into categories; each category was coded and saved into database. Completed: July 30, 2015.  Step 2. The research facilitator collaborated with the program stakeholders to apply methods triangulation to collected data and analysis of statistical results that were assembled into a formative feedback model narrative that provides interpreted data in an understandable manner and language that was familiar to both, stakeholders and participants. Completed: August 30, 2015.  Step 3. The research facilitator organized and recorded interpretations in collaboration with the program stakeholders. The draft interpretation document was the precursor to the final report. These activities followed the data analysis approach from Merriam's (1998), Schalock's (2001), Saldaña, (2013) and Stringer's (2007). Completed: September 30, 2015
3. By December 2015, (prior to final outcome of this the AR project initiated), to have explored ways whereby the collaborative efforts of the AFEC program stakeholders and Activity young adults can better develop strategic improvement plans for the current curriculum of the AFEC program.	Interpretation and Value Judgment (Schalock, 2001). By November 2015, for the stakeholder participants to have participated in relevant aspects of Schalock's (2002), Chen's (2005), and Kusek and Rist's (2004) OBE approach in methods triangulation with the logic of the case study design as described by Merriam (1998), Stake (1995), and Yin (2009, 2011) and as structured within Stringer's (2007) Look, Think, and Act model framework. This Process Objective was intended to interpret the gathered data and value judge that assisted in exploring ways whereby the collaborative efforts (Schalock, 2001) of the AFEC program stakeholders and Activity young adults could develop a better strategic improvement plan for the current curriculum of the AFEC program.	Step 1. The research facilitator in collaboration with the program stakeholders organized interpretation and findings from collected data for the purpose of creating a strategic plan that could enhance the financial knowledge base, attitudes, and decision-making processes of stakeholders and young adults. Completed: October 30, 2015.  Step 2. The research facilitator collaborated with the program stakeholders in the development of a strategic plan that melded concepts and approaches, such as program's overall goals, objectives, activities, and strategies for the implementation of sustainable solutions and resolutions. Completed: January 30, 2016.

The objectives of the action plan were:

1. To assess the financial literacy gap and the impact the financial, coaching/counseling, and educational programs had to close the gap.
2. To find solutions that could mitigate current AFEC program deficiencies.

The action plan framework consists of three phases that were adapted from Stringer's (2007) Look, Think, and Act model. Figure 5 presents an overview of the case study action plan.

The case study action plan consists of the following phases and steps:

1. The Look Phase
  - a. Define the indicators
  - b. Gather baseline data to establish the current program position
  - c. Conduct Collaborative Self-assessment, Collect Data
2. The Think Phase
  - a. Data Analysis
  - b. Data Interpretation
  - c. Organize and record interpretations
3. The Act Phase
  - a. Organize the interpretation of data and descriptors (i.e. findings)
  - b. Write, report on, and provide inputs for strategic plan



Figure 5. Case Study Action Plan Overview.

### Program Evaluation Study Designed

The utilization of Schalock's (2001) OBE coupled with Merriam's (1998) evaluative case studies' approach provided the designed foundation of the study. This latter approach involves three overall goals to better answer research questions, so multiple collections of data sources can be utilized to better satisfy case study intent. Thus, the OBE model involves the description, interpretation, and value judgments to address program accountability and value (Schalock, 2001). The case study evaluation can use various instruments for data collection, but it cannot be conducted without interviews. Interviews form the foundation of the evaluation case study as they provide understanding and perspectives from the subject group members (Albright et al., 1998; Schalock, 2001). Research data collection tools, when well designed, produce rich, in-depth data in a format that is easily organized, tabulated, analyzed, and interpreted (Patton, 2002; Wilkinson & Birminham, 2003). Finally, two critical



## **Setting**

The Activity is a member of the IC and is a global federal government organization with locations worldwide. The program Director, Activity Security Office, and Branch Chief approved the execution of this action research case study.

## **Instrumentation and Measures**

A combination of available data collection instruments was utilized for conducting this research. The instruments were developed and used to collect financial literacy data related to knowledge and understanding of the subject by Activity program participants. The Federal Deposit Insurance Corporation and the American Association of University Women developed the instruments utilized during this study. The data collection forms were utilized in accordance with Blank Forms Doctrine 37 C.F.R. 202.1(c), (Cornell University Law School, 2010; Office of General Counsel, 2014), which explains that forms that do not convey information, are only designed to record information, and are not subject to copyright. These instruments were reviewed and accepted by Capella IRB, four program stakeholders, and approved by the Activity security office and then field deployed from September 2014 through April 2015 for the purpose of data collection.

The instruments were used to collect data that provided descriptive intent, such as the e-interview and e-questionnaire data collection instruments. The e-interviews (one-on-one) were conducted using email. The study evaluation also used e-interviews. The interviews were the foundation of the evaluation case study, as they provided understanding and perspectives from the subject group members (Albright et al., 1998; Schalock, 2001). The e-questionnaires provided information concerning the participants' knowledge, perspectives, opinions, attitudes, values, and experiences. The e-focus group data collection instrument

was used to explain intent. The focus group answered closed and open-ended questions to gain in-depth, high-quality data, allowing participants to exchange views regarding the research question (Krueger & Casey, 2015; Merriam, 2009; O'Sullivan et al., 2008; Patton, 2002). The e-focus groups used the email *reply all* capability to exchange information as a group.

Finally, field literature was used as an instrument that served the judgment intent. The financial literacy field data was only used to explain the need for the study and to compliment the issues addressed in the case study. The document's definition was composed of unofficial (non-governmental) papers. These included documentation and utilization of the CIPP checklist that provided data related to target groups and similar program results, perspectives, and perceptions uninfluenced by this research. Secondary data was also composed of official documents such as financial journals, program archival records, and subject related publications. These qualitative records and documents were obtained by conducting Internet searches and by collaborating with program stakeholders for the purpose of establishing a baseline (Fitzpatrick et al., 2011; Merriam, 2009).

### **Field Test**

The combination of modified data collection instruments was utilized for this research. The instruments were field tested for the purpose of ensuring that the collected data was useful and meaningful for questioning the stakeholder regarding the problem. The field test was used to isolate technical problems with the instruments' questions by asserting that the questions were clear and understandable to the research participants and stakeholders (Fitzpatrick et al., 2011; Merriam, 2009; O'Sullivan et al., 2008; Royse et al., 2010). A field

test of instruments was conducted to verify and validate the data collection instruments' content and context, such as:

1. Questions were clear and understandable.
2. Questions were ethical.
3. Questions were within research scope.

The results of the field test revealed no requirements for modifications to the data collection tools. The four selected financial education experts had 7 to 25 years of involvement in the financial education field. The field testers understood that they were to only participate in the field test of tools and not in the case study. They understood and reviewed all the data collection tools questions providing a positive response. Further, the four expert participants provided expanded responses that indicated that the tools indeed were clear, understandable, ethical and within research scope. Overall, the field test experts suggested change in some of the expression and terms used on the data collection instruments for clarity. For example, while some verbiage was deleted, change was also made to expression such as “Managing Money/Debt” to “Checking Account and Student Loans.”

### **Data Collection**

Data collection was conducted by using Internet resources (i.e. open source resources) and the Activity secure communications network. Activity participants and stakeholder inputs (i.e. collected data) were gathered using the closed secure Activity network. Files containing collected data were stored in the Activity network secure computer server drive.

The steps for data collection were as follows:

1. Presented data collection tools to stakeholders and received approval.

Coordinated the deployment of data collection tools with AFEC.

2. Selected an available course or coaching session to be targeted for study.

AFEC provided a list of personnel that had signed up for a course or scheduled coaching session.

3. Each contacted participant was scheduled to attend a course or coaching session.

Each participant question or concern was addressed.

4. Upon candidate's positive response the e-Informed Consent form, detailed case study information was sent to the prospective candidate through Activity secure network email. Upon receipt of consent form by the research facilitator, an e-questionnaire was sent to the participant to be answered prior to the course or coaching session.

5. A second e-questionnaire was sent after the course or coaching session.

In tandem, an e-focus group and e-interview session was arranged and conducted.

6. Upon receipt, all collected data was captured and entered into a MS Excel spreadsheet and forwarded to the Activity security office for review.

The *why* of the data collection strategy was based on the need to discover whether the research facilitator's hypothesis was correct and to answer the research questions. Data collection timetable: The data collection instruments were field deployed over the period between September 2014 and April 2015.

### **Data Analysis**

Since this was an OBE case study approach to action research, the research was developed according to the logic of Schalock's (2001) data analysis strategy framework. This supported a holistic analysis that provided specific aspects related to the case in question and supported the research theoretical foundation (Creswell, 2013a; Creswell & Clarke, 2011;



Herr & Anderson, 2005; Merriam, 2009; Patton, 2002; Royse et al., 2010). For the data analysis, the qualitative and quantitative data was coordinated to better answer the research questions for the study, meaning the logic of the convergent parallel approach served as a framework for the data analysis. Additionally, the use of convergent analysis provided the ability to merge the collection and analysis of qualitative and quantitative data during the Look and Think phases of the study (i.e. directly comparing and contrasting statistical results with findings for confirmation and validation purposes).

The data analysis strategy was based on Chen's (2005), Kusek and Rist's (2004), Merriam's (1998), Schalock's (2001), and Stringer's (2007) models. Data analysis included techniques that explored descriptive and inferential techniques that could be used to further address the hypothesis and the research questions.

The data analysis objectives addressed:

1. Collected data could produce empirical evidence that could validate or nullify the study hypothesis and research questions, as well as validate changes in practice.
2. Data collected addressed the AFEC program's purpose and investigated its effectiveness.
3. Data collected had to engage stakeholders and participants through a systematic inquiry.
4. Relevant data focused on the action research OBE framework. The research addressed the collection of data that described and analyzed the phenomenon in its real-world context that addressed questions concerning the AFEC program's effectiveness.

5. The utilization of convergent parallel approach was used based on the evaluation contexts, taking into consideration the descriptive data that yielded data summaries and inferential tests of the assessment's dimensions. The inferential procedures were used to test statistical differences between key variables (Altschuld, 2009b, 2009c, 2010).

6. Pre-Coding:

Pre-coding was utilized to sort and identify data that had higher level of relevance and significance. Pre-coding assisted in identifying key elements, such as learning needs, gaps, interest in subject, program value and learning format, which were resonant throughout the study and that supported the study propositions and findings (Saldana, 2009). Further, Merriam's (1998) recommendations related to coding mechanism including the notion that all coding is a judgment call since researchers bring subjective and personalities to the process were taken into consideration. Further, coding as a heuristic problem solving technique provided a systematic approach to discover patterns that assisted in the data analysis (Merriam, 1998).

7. Coding:

- a. Descriptive coding was utilized during the first cycle coding phase. The descriptive coding was utilized to summarize data with one word, which delineated the topic captured in the qualitative data (Saldana, 2009). Since software tools were to be utilized, coding was kept simple, which facilitated data entry on spreadsheet and word documents (O'Sullivan et. al., 2008). Additionally, data was also manually inputted into analytic software.

- b. Subsequent to the first cycle the development of 24 categories and three themes emerged based on the relationship between codes, the frequency of the codes and significance across codes (Saldana, 2009, 2013).
  - c. The second cycle of the coding utilized pattern coding. Pattern coding provided the explanatory codes, which in turn identified emerging themes (Saldana, 2009). The approach of the second cycle identified three major themes, participants' interest in subject matter, and program value and learning format, which were in alignment with the study hypothesis (Saldana, 2013).
8. The research facilitator closely collaborated with the AFEC program stakeholders to expand the understanding of collected descriptive information/data.

### **Methodological Assumptions**

To address key assumptions, the methodology used for this study is an OBE case study with a participatory oriented strategy, coupled with convergent criterion-related validity and various methodologies (Fitzpatrick et al., 2011; Merriam, 2009; Royse et al., 2010; Schalock, 2001).

The research addressed key assumptions by:

1. Performing an evaluation that is participatory based, with all categories of target groups represented.
2. Utilizing a methodology that validates research findings, which addresses managerial enhancements to programs' delivery methods.
3. Utilizing a methodology that validates research findings which addresses improvements to program curriculum.

#### 4. Maintaining validity and reliability throughout the evaluation.

##### **Evidence of Action Validity and Research Quality**

This case study used methods triangulation and the convergence of secondary data. CIPP served as the litmus test to verify and validate the results of the collected data to ensure that measurements were accurate and within the context of the study (Golafshani, 2003; Ivankova, 2015; Patton, 2002; Stufflebeam, 2007). Utilization of OBE and action research emphasized this study evidence; validity and rigor in research, coupled with action research and methods triangulation approach further allowed for problem resolution based on the utilization of assembled knowledge that promoted change within the Activity continue improvement processes.

Evidence of action validity was established through:

1. *Methods Triangulation*: Using multiple methods to validate collected data and findings, utilizing ordinary peoples' experience, understanding and wisdom (Stringer, 2007); the study data was obtained utilizing questionnaires, interviews, and focus groups. These various data sources provided results that were compared concurrently to verify and validate the findings.
2. *Outcome validity*: Assessed whether the actions taken during this OBE action research case study resulted in resolution of the problem and the generation of knowledge. This occurred throughout the utilization of collaboration with stakeholder participants and the utilization of a methodology that validated research findings that addressed managerial enhancements to programs' delivery methods.
3. *Confirmability*: Utilized a methodology that validates research findings which

addresses improvements to program curriculum. Therefore, this case study methodology and procedures were used to explain and confirmed the veracity of the study (Stringer, 2007).

4. *Dialogic validity*: The need to confirm the “goodness” of the research (Herr & Anderson, 2005, p. 57) was prosecuted where emerging knowledge and the critical reflective discussions with peers assisted in the validation of the definition of problems and study findings. The dialogic validity stressed inquiry and participation of stakeholders to achieve critical learning and acceptance by institution under study (Herr & Anderson, 2005).

5. *Credibility*: The credibility of research process was assured by providing transparency throughout the study. Further, collaboration with stakeholders validated the integrity of the study; this occurred by providing stakeholders the ability to easily access collected data, responses and study findings.

6. *Content validity*: Confirmed that measurement actions and instruments addressed the intended measurements (Schalock, 2001) and covered a full range of topics within study (Altschuld, 2009b, 2009c); this was accomplished in collaboration with stakeholders during the evaluation phase of the study.

7. *Utility*: The principal purpose of this OBE and action research was to assess organization practices related to financial literacy gap and young adults as well as how the evaluation outcomes could be used to advance the organizations’ effectiveness and efficiencies (Schalock, 2001).

8. *Researcher bias minimization validity*: These, biases, assumptions and orientation were identified at the beginning of the study (Merriam, 1998), and multiple methods were utilized as a means to offsetting perceived biases (Rossi et al., 2004).

### **Research Facilitator's Positionality**

The research facilitator's principal position during the study was that of an outsider with insiders' collaboration. Consequently, the research facilitator utilized a co-generative model framework approach that combined the collection and analysis of data by merging quantitative statistical results with qualitative findings to reach a larger understanding of the phenomenon. This collective approach had a positive impact on the research study by providing a level of independence that, when coupled with stakeholders' close collaboration, created the capacity to identify the program's theoretical applications and impact. It also expanded stakeholders' program knowledge and motivated transformation and practice improvements (Creswell & Clarke, 2011; Greenwood & Levin, 2007; Herr & Anderson, 2005). This is not to say that positionality was *set in stone* since, at times, own positionality had to shift from outsider in collaboration with insider to the reciprocal collaboration. This was mostly a short-term shift that had little or no impact on the case study methodology or theory. The need to temporarily shift positionality was duly noted by Herr and Anderson (2005). Positionality does not fit a neat position; it might shift during the conduct of a study. Hence, the positionality must be adapted, as required, in regards to the setting and participants (Herr & Anderson, 2005).

### **Ethical Considerations**

Throughout the study, utmost concern was to maintain the dignity, safety, privacy, and security of all research participants and stakeholders. For these reasons, strict adherence

to procedures and processes during the collection and analysis of sample population data was followed during and after the activities of this study (Herr & Anderson, 2005; O'Sullivan et al., 2008; Royse et al., 2010; Shafritz, Russell, & Borick, 2008; Stringer, 2007). Therefore, action points were developed and implemented, which focused attention on ethical considerations such as:

- Review position as an outsider with insiders' collaboration. This was determined to present no ethical concerns. To reach this determination, the research facilitator considered the complexity, limitations, and nuances of the selected positional stand that increases self-awareness and assists in maintaining focus, respect for participants, and objectivity throughout the research (Merriam, 2009).
- Ensured that all research participants were volunteers and were treated in a fair and just manner (Thiroux & Krasemann, 2009). As part of this action point, all volunteers were provided with consent forms, opportunities to provide feedback, venues to exit the research, access to collected personal information, as well as rights to view collected research data, findings, and reports (Stringer, 2007). A collaborative effort was utilized to assess risks and a collective conclusion was reached that no potential risk for coercion existed.
- All research information shall be stored for seven years upon the study's completion in the Activity secure network. Collected data should be maintained on different isolated repository media, which is secured (encrypted).
- The research facilitator employed standard ethical practices and used appropriate procedures to acquire informed consent. The procedure to select participants and the manner in which they were selected was fair and affirmed by both participants and

nonparticipants. Participation in the research was based on voluntary consent and the respect for privacy while ensuring individuals' dignity (O'Sullivan et al., 2008, Royse et al., 2010). All participants were protected against harm or psychological stresses.

### **Potential Issues**

The participants' safety and security were paramount. Hence, throughout the research study close attention was paid to statutory and ethical principles, from the research design, development, and implementation of research. Therefore, the upmost and primary concerned all through the study was to ensured participants' privacy, wellbeing and safety (Royse et al., 2010).

### **Summary**

This chapter described in detail the methodology in terms of research design, the justification for the sample selection, instrumentation used, data collection processes, data analysis procedures, and ethical considerations. This chapter discussed the research efforts that involved collaboration, the approach to the study, subject inquiry, research techniques, and ethical considerations. In chapter 4, the purpose is to report the analysis of the study and verify the results.



## **CHAPTER 4. DATA COLLECTION, ANALYSIS, FINDINGS, AND RESOLUTION REPORT**

### **Overview**

The purpose of this chapter is to provide the details utilized during the research data collection and analysis process, research procedures, and resulting findings and solutions. The areas covered in this chapter discuss in detail the research methodology, emerging research design, collaborative efforts, strategy for data collection and analysis, its synthesis, and findings. Consequently, the research facilitator will provide a detailed explanation of how data was gathered and analyzed with the purpose of answering the research questions, as well as identify themes and solutions that address a resolution of the phenomenon.

### **Emerging Research Design**

A common expectation is that as the research deepens, a possibility of design changes should be considered. As the research implementation process matured, emergent research design requirements surfaced. To address the emergent research design phenomenon, the researcher utilized the approach that research design, process, and procedures should not be rigid, mechanical, and static, but instead flexible, transparent, adaptive, elastic, and responsive (Creswell, 2013a, 2013b; Herr & Anderson, 2005; Hu, 2009; Patton, 2002; Yin, 2011). Following the emergent design approach, adjustments were made and documented to assure that the overall research design maintained the research focus. Prior to the qualitative data collection and analysis steps, changes were necessary and made to the action research framework timeline and the use of the data analysis computer software.

These emergent design requirements had a minor impact on the research timeline caused by the researcher's field office location, AFEC participants' and stakeholders' schedules, mission responsibilities, and time zone differences. An additional change was made prior the data collection and analysis. The original plan was to utilize Nvivo 10 to record, code, and analysis of data. This resulted in the search for software that was compatible with the research facilitator's computer OS. The search for feasible software resulted in the conclusion that Dedoose and Microsoft Excel software platforms were compatible and better suited for the OBE and mixed methodology. No other permanent research design changes were required or made to the research process or plan.

### **Collaborative Roles Designed**

Upon receipt of the AFEC program lead consent letter and security office approval, and after contacting stakeholders, a self-assessment was conducted to identify strengths, weaknesses, and preparedness to utilize the OBE case study. The research facilitator found that his experience as a senior manager and supervisor, along with his financial literacy field knowledge, systems engineering background, and program management expertise, provided a strong background to execute an action research and the OBE case study. There were, however, concerns regarding weaknesses such as plausible biases that could occur due to stakeholders' intent to control research, the ability to manage stakeholder expectations, volunteers' commitment to participation, and geographical distance from the AFEC.

Action research rests on collaborative learning and action design, which requires stakeholders to be partners in the evaluation process, so emphasis was placed on the collaborative approach, which was used as the bridge toward buy in of opportunities for continued improvement and sustainability (Greenwood & Levin, 2007). Trust was built by

focusing research on outcomes that clarify whether organization resources were sufficient and aligned with stakeholders' and policymakers' expectations (Schalock, 2001) by utilizing an approach of neutrality, transparency, and negotiation that promoted a nonthreatening environment (Stringer, 2007). The aforementioned approaches were adopted to overcome the perceived weaknesses and to build a closer relationship with stakeholders and participants.

Stringer's (2007) action research as a framework and the *Look, Think, Act* approach of building the picture in conjunction with Merriam's (1998) *judgment phase* of the evaluative case study model and the OBE models of Chen (2005), Kusek and Rist, (2004) and Schalock (2001) were incorporated to facilitate suitable data collection and analysis for this study. Participant recruitment was only open to Activity personnel who had or were scheduled to participate in AFEC programs, so an ethical selection process based on distributed justice was utilized to protect the privacy and security of personnel (O'Sullivan et al., 2008). The initial contact was made by an AFEC stakeholder, who contacted Activity personnel who planned to participate in the AFEC program. The stakeholder provided the prospective Activity personnel with information concerning the research, asked for intent to participate, and requested permission to release names to the research facilitator. This allowed the interested participants to freely decide if they wanted to volunteer, with the knowledge that their privacy and security was paramount to the stakeholder and research facilitator. Once Activity personnel agreed to be contacted, recruitment e-mails that included attached informed consent forms were sent to each potential participant.

The next step was to send the financial literacy e-test, e-survey, and e-interview to each volunteer. This was followed by Step Two, which consisted of an e-survey and e-focus group. The group consisted of 11 participants with a 100% response rate. Due to Activity

security policy and the participants' request, the participants' characteristics were not captured. This had no impact on the case study, as the research questions and action plan objectives were not dependent upon participants' characteristics, with the exception of being within the young adult range (i.e., 21 to 26 years old). To further support the validity of the research, the convergence and methods triangulation model were utilized as a data collection and analysis strategy. This integrated divergent data sources, providing the most comprehensive and robust model for this case study (Ivankova, 2015; Patton, 2002; Royse et al., 2010). This also supported the holistic analysis that illuminated specific aspects related to the case study question (Creswell, 2013a; Creswell & Clarke, 2011; Herr & Anderson, 2005; Merriam, 2009; Patton, 2002) and scope.

### **Profile of Critical Stakeholders Sampled**

The need for collaboration with stakeholders was a critical element of this action research and the OBE, as stakeholders and participants assist the research facilitator in expanding site knowledge and the exploration of problems and issues (Herr & Anderson, 2005; Stringer, 2007). Activity policy and respect for the site, participants, and stakeholders' privacy was paramount. The research facilitator had to minimize disruptions (Patton, 2002) and abide by stakeholders' requests and Activity policy. Therefore, three stakeholders and 11 participants were identified to collaborate during the research, but only one AFEC management stakeholder was appointed as the official point of contact to support the research. The other two stakeholders provided assistance, but they preferred not to be identified. The two stakeholders who chose not to be identified fully endorsed the research and case study. All of the 11 participants collaborated throughout the study. A sample was selected from the 11 participants that represented the diversity of the sample group. The

participants' ages ranged from 22 to 26 years old. In this section, the stakeholder and sample of the participants were highlighted. The need to abide by Activity security policy and personnel privacy required that only vetted information was releasable and is provided here.

### **Management Stakeholder**

**Adam.** The stakeholder is a male and serves various roles within the AFEC, including instructor, coach, and counselor. Adam was first contacted on April 30, 2014. He was appointed as the AFEC official point of contact in support of the research. He was very enthusiastic and provided support as a facilitator throughout the research. He is a certified financial counselor and instructor. He is an avid supporter of financial literacy, and he truly enjoys his job as a financial counselor and instructor. He is a full-time Activity employee and travels to other locations to provide financial training.

### **Research Participants**

**CAJDP9.** He is a male and holds a baccalaureate. His understanding of financial literacy is good, and he does not make financial decisions unless he has researched the subject. He was first contacted on May 15, 2014 and continued to participate until the completion of data collection process. He fully understood the importance of being financially literate. He was very active during the focus group; his understanding of financial subjects was better than other participants. He is currently employed and holds a management position within the Activity.

**GASS2C.** She is a female and holds a graduate degree. She was contacted on May 15, 2014. Her financial literacy background was good, but she wanted to learn more, as she recognizes that this is a critical subject that could negatively affect her security clearance.

She participated in all focus group sessions and all research activities. She is currently employed by the Activity.

**JJS32.** She is a female and holds a baccalaureate. She was contacted on May 15, 2014. Financial literacy is not a subject she likes, but she understands how important it is to her career and personal well-being. She participated in the focus group and all research activities. She expressed the need to learn more about the subject, but still found many of the financial terms confusing and deceiving. The AFEC available courses and material helped her to better understand the financial terms and tools. She is a full-time Activity employee and section supervisor.

**OELS313.** She is a female and holds a baccalaureate. She was initially contacted on May 15, 2014. Financial literacy is not a subject she likes, but she does not make any financial decisions until she explores the subject, options, and impact on her budget. She participated in the focus group and all research activities. She mentioned that the AFEC courses helped her to better understand the financial terms. She used the coaching program and found it to be very helpful. She is currently an Activity full-time employee.

**PNRBF242.** He is a male and holds a baccalaureate. He was first contacted on May 15, 2014 and continued to participate until completion of the data collection process. He is very reserved. He expressed an understanding of the importance of being financially literate, but admitted that he has made some bad financial decisions. His understanding of the financial subject was limited. He is currently a full-time employee with the Activity.

### **Context of Research Methodology in Data Collection and Analysis**

The method of inquiry was based on the composite logic of the OBE case study approach. This approach was utilized to answer the research questions and the convergent

analysis and methods triangulation used for the validation and verification of the case study findings (Chen, 2005; Creswell, 2009, 2013a; Ivankova, 2015; Kusek & Rist, 2004; Patton, 2002; Schalock, 2001). The action research case study approach was the vehicle implemented as a framework to actively focus, investigate, and collaborate with stakeholders and participants to further understand the phenomenon and define a viable means to take action to resolve issues (Merriam, 2009; Stringer 2007).

Stringer's (2007) action research as a framework, the *Look, Think, Act* approach of building the picture, Merriam's (1998) *judgment phase* of the evaluative case study model, and the OBE models of Chen (2005), Kusek and Rist (2004), and Schalock (2001) were incorporated to facilitate suitable data collection for this study. The convergence of the methods triangulation model utilized as a data collection strategy integrated with divergent data sources was the most comprehensive and robust model for this case study (Ivankova, 2015; Patton, 2002; Royse et al., 2010). In alignment with the OBE case study concepts, a literature review was conducted to assist the research facilitator understand (Stringer, 2007) the culture and climate of young adults' financial needs and plausible lack of financial literacy.

Additionally, the need for the study was verified by the stakeholder participants for the study. It was also ensured that it is in alignment with the gaps identified in the review of the literature. The study of literature was conducted by an adaptation of needs assessment Phase I and II models. This was performed with the purpose of identifying social conditions (Rossi et al., 2004) and dimensions of the problem by examining available literature, studies, and journals dealing with financial literacy (Altschuld, 2009a). The literature review was

used to address research questions, investigate the financial literacy environment, and assess the information gap in previous research (O'Sullivan et al., 2008).

The initial viability assessment of stakeholders' receptiveness to approving the AFEC as the site for inquiry took place using Activity network e-mails between January and April 2014. The objective of the e-mail exchange was to further investigate and assert stakeholders' desire to improve programs (Greenwood et al, 2007), their receptiveness to change (Herr & Anderson, 2005), and their interest to enhance their customers' lives (Stringer, 2007). During this assessment step, the management stakeholders were able to review the study proposal form and informed consent form. This helped them understand the study's objectives while gauging their commitment to the research objectives and timeline to minimize or eliminate turnover. The participants' recruitment and commitment was also gauged following a similar process, with the exception that the study proposal form, which was not provided to the participants.

Activity population demographics, enrollment records of AFEC, and Activity funding sources are not available for public disclosure and thus are not included in this case study. The participants participated in interviews and answered questionnaires related to the AFEC program. The data collection phase of the study relied on available data collection instruments. The data collection instruments were used to collect participants' financial literacy data related to their financial knowledge, perspectives, and their understanding of the AFEC program. The Federal Deposit Insurance Corporation and the American Association of University Women developed the instruments with the purpose of assessing the general subject knowledge, perspective, and relevance of financial literacy. The data collection instruments were field deployed from September 2014 through April 2015. The instruments



were used to collect data that provided descriptive intent, such as the e-interview and e-questionnaire data collection instruments. The e-interviews (one-on-one) were conducted through e-mail.

The e-interviews served as the foundation of the evaluation case study, and as such, they provided an understanding and various perspectives from members of the subject group (Albright et al., 1998; Schalock, 2001). The e-questionnaires provided information concerning the participants' knowledge, perspectives, opinions, attitudes, values, and experiences. The e-focus group data collection instrument was used to explain intent. The groups answered open-ended questions to gain in-depth, high-quality data, allowing participants to exchange views regarding the research questions (Merriam, 2009; O'Sullivan et al., 2008; Patton, 2002). The e-focus groups used the e-mail's *reply all* capability to exchange information as a group. The collected data validity was assured by the utilization of the methods triangulation and convergence approach. This served as the litmus test to verify and validate the results of the collected data as accurate within the context of the study (Golafshani, 2003; Patton, 2002).

### **Evidence of Quality in Data Transcription, Methods Triangulation, and Coding**

The data analysis phase involved the tabulation and synthesis process of collected e-mails and selected data collection instruments. The synthesis of collected e-focus and e-interview responses was necessary, as many of the participants' comments were similar and varied only in minor wording. The researcher determined that synthesis was necessary to eliminate redundancy, which added no value and had no impact on the study. Synthesizing the text assisted in extracting adequate meaning from the collected data. This was possible because this case study is unlike other forms of research, as it provided the flexibility to

utilize methods and instruments of data collection, as well as analysis that better fit the research question (Merriam, 2009). The evidence of quality in the data transcription, triangulation, and coding was demonstrated by the collaborative aspect of the participatory action research approach, as well as facilitating the cogenerative action learning framework (Greenwood & Levin, 2007; Miles, Huberman, & Saldana, 2013). Descriptive coding was used during the first cycle coding phase, and pattern coding was used in the second cycle coding phase; analysis of data resulted in the emergence of themes (Saldana, 2013).

By way of facilitating the descriptive and pattern coding, upon completion of data tabulation and synthesis, the data was organized and entered into MS Excel spreadsheets and Word documents, and then downloaded into Dedoose. The architecture utilized by Dedoose algorithms is based on the utilization of a relational database and on how various aspects of the methods database are connected. The relationships between the database information are connected from all downloaded media. These relationships allow Dedoose analytic features to utilize every piece of downloaded data to be filtered, analyzed, and exported (Dedoose, 2014).

The MS tools provided the ability to format and extract collected information in an effective manner. This was in line with Yin's (2009) and Patton's (1990) recommendations concerning the importance of data organization and archiving. Once the raw data was gathered, it was organized in a comprehensive manner that made access to the data complete, manageable, and accessible (Patton, 2002). Organization of the data was considered, as it is a critical factor. The interpretation of the organized data provides the meaning, which assists in explaining and answering the research questions (Fitzpatrick et al., 2011). During the data analysis stage, qualitative data play an important role by interpreting, clarifying, describing,

and validating quantitative results (Burke, 1980; Onwuegbuzie & Dickinson, 2009). The approach toward data analysis was adapted from Patton's (2002) *make sense* approach in which the steps call for:

1. Inventory of data.
2. Assess if there are any gaps.
3. Assurance that all labels, descriptors, and codes are noted.
4. Verification of quality (validity) of data.
5. Assessment that cumulative data is complete and relevant.

Constant interaction was maintained with the stakeholders during the interpretation of the data, but stakeholders' active participation was limited due to their duty schedule and mission requirements. Additionally, the geographic distance from the Activity site did not provide a viable venue to conduct face-to-face meetings with stakeholders or participants. This limitation and suggested approach was presented and accepted by the Capella IRB, and then discussed with the mentor, stakeholders, and participants prior to and during the research with no noted objections. Conducting research over the Internet is not new, and it is becoming an effective tool for conducting research. As with any innovation compared to traditional research, the Internet (i.e., electronic medium) provides many advantages and some risks over traditional venues (Persichitte, Young, & Tharp, 1997). Compared to traditional research, Internet research is a comparable vehicle of collecting data and making observational research, surveys, and studies less expensive and easier to conduct (Cohen, 2007; Kraut, Banaji, Bruckman, Cohen, & Cooper, 2004; UNICEF, 2015).

The logic of the OBE case study approach was utilized to answer the research questions, so the data-collection instruments were used for this case study. Thus, Merriam's

(1998) evaluative case studies' model involves three overall intents to better answer research questions. Multiple collections of data sources were utilized to better satisfy those intents. The methods triangulation model as a data collection strategy was the most suitable to do this for this OBE study. The verification of the quality of data transcription, triangulation, and coding was confirmed by the utilization of action research processes, which enhanced capture of data content and context that provided valid social knowledge (Greenwood & Levin, 2007; Saldana, 2009). This study codes derived from data content also underlined the essential elements related to the research discovery of patterns, which facilitated the development of categories based on the relationship between codes (Saldana, 2013). The data analysis process utilized data collected from e-questionnaires, e-surveys, the e-focus group, and literature reviews, which were coded for further analysis. The codes were the building blocks and the foundation upon which the research facilitator's arguments rested (Creswell, 2007; Merriam, 1998).

The codes can be tacit or explicit; they form the assumptions underlying the analysis (MacQueen, McLellan, Kay, & Milstein, 1998). The coding of data was tagged by its content and meaning corresponding to the study needs (Saldana, 2009). The convergent analysis design served as a framework for the data analysis. The use of convergent analysis provided the research facilitator with the ability to use multiple data sources. This served to extend the understanding of the program's need and to assist in the identification of different perspectives related to the program's objectives and goals, which facilitated data analysis. To address key assumptions, the methodology used during the study was the OBE case study with a participatory oriented strategy that when coupled with a convergent criterion, related validity and various methodologies (Fitzpatrick et al., 2011; Merriam, 2009; Royse et al.,

2010; Schalock, 2001).

Coding outcomes included themes (Saldana, 2009). These thematic categories are critical to the inquiry by helping to discover and explain discrete events and occurrences that pertain to the phenomenon (Ryan, Health, & Bernard, 2003). These emerging themes then provided the findings of the OBE case study and were linked to the hypotheses toward the development of the explanatory theory (Merriam, 1998). To assure a more robust reflective and learning action, the research facilitator utilized multiple measurement tools, which provided a broader coverage of the phenomenon concept and allowed for balancing each methodology's strengths and weaknesses. By statistically combining multiple measures into one, it produced a more robust and valid composite measure (Rossi et al., 2004) that could be utilized to further support proposals for adoption by program.

All methods have limitations and biases, so the use of a single methodology would have diminished the study's robustness. Therefore multiple methods were utilized to neutralize these biases and limitations (Creswell, 2003; Ivankova, 2015). The number of themes that surfaced during the coding and analysis phase assisted in focusing the research (Table 2). These themes emerged during the sorting and collating of the data. The research facilitator used the collected data from the interviews and questionnaires, as well as stakeholders' observations, to process and use findings to help drive change in support of the development of strategic plans to be used to enhance the financial education program (Merriam, 1998; Stringer, 2007). Program stakeholders and federal literacy program managers can better enhance the financial knowledge base, attitudes, and decision-making processes to positively influence the financial behaviors of young adults by adopting strategic plans. The possibility of missing *something* was considered by the research facilitator, but the

study's systematic approach and rigor resulted in a robust validation required under action research for trustworthy results and outcomes (Stringer, 2007).

Table 2.

*Themes Emerging from Data Coding Analysis*

Themes	Data
Learning	Learning and format for learning.
AFEC value	Awareness of multiple programs and need to learn more about the subject. Valued the number of programs available.
Interest in Subject	Participants further vetted the need for collaboration to continue program improvements.

The emerging themes from the data analysis reflected that the stakeholders were in agreement concerning the need for financial understanding and knowledge. This was evident from the qualitative data coding, where “need to know more” (i.e., learn) was mentioned or referenced by 100% of respondents, value of AFEC program was mentioned by 90% of respondents, and interest in subject received 82% positive responses.

**Methods Triangulation Framework of Data Analysis and Evaluation Report**

Methods triangulation was utilized in recognition that all data collection methods have limitations. It is considered a methodological paradigm that recognizes the importance of qualitative and quantitative research, but it adds a dimension that balances each approach to produce viable research solutions (Patton, 2002). Action research and methods triangulation are both designed to conduct systematic inquiries to identify the research phenomenon and actionable solutions (Patton, 2002; Stringer, 2007). These models simultaneously collect, merge, and use both quantitative and qualitative data (Patton, 2002), thus providing additional robustness to the study.

Methods triangulation, action research, and the OBE provided the research facilitator with the vehicle to discover new knowledge, identify action-oriented outcomes, increase understanding of the research subject, assist in isolating irrelevant results, and provide a platform to execute a rigorous research methodology (Herr & Anderson, 2005; Schalock, 2001). The research facilitator utilized Trochim's (2002) three major steps as a organizational platform to execute a rigorous methodology:

1. *Data preparation*: Load data, inspect for accuracy, and build database format.
2. *Descriptive statistics*: Summarize samples and measures, and then use them to describe data.
3. *Inferential statistics*: Investigate and infer based on sample data. Judge probability of observation.

For the purpose of this study, descriptive statistics were used to summarize and describe the data. Inferential statistics were used to infer conclusions regarding populations outside the study (O'Sullivan et al., 2008).

### **Quantitative Data Analysis and Evaluative Report**

The analysis of quantitative data was vital to the study because it provided data used to measure population knowledge of thematic information and participants' perspectives. The results of the analysis provided the empirical support to address and understand the problem, which in turn helped increase awareness of the financial literacy knowledge gap and interest of the group to learn more about financial literacy.

### **Qualitative Data Analysis and Evaluative Report**

The analysis of qualitative data provided the descriptive layer to the quantitative data and participants' experiences and perspectives that help define the problem (Stringer, 2007).

More importantly, the research facilitator utilized a co-generative model framework approach that combined the collection and analysis of data by merging quantitative statistical results with qualitative findings to reach a larger understanding of the phenomenon. This collective approach impacted the research study by providing a level of independence that when coupled with stakeholders' collaboration created the ability to identify the program's theoretical applications and impact. It also expanded stakeholders' program knowledge bases, motivated transformation, and encouraged improvements (Creswell & Clarke, 2011; Greenwood & Levin, 2007; Herr & Anderson, 2005).

### **Storage of Data**

The data was collected from e-mails and loaded in MS Excel© and Word©, and then forwarded to the security office for review. Upon approval, it was saved in files on the Activity secured network. No audiotaping was allowed by Activity security policy, so audiotaping was not used during the study. The human instrument has shortcomings and biases that might have an impact on the study. It is difficult to eliminate these biases or *subjectivities*, so it is important to identify them and monitor the ways they may shape the collection and interpretation of data (Merriam, 2009). "Science involves either a subjective or an objective approach to research, and these two major philosophical approaches are delineated by several core assumptions concerning ontology (reality), epistemology (knowledge), human nature (pre-determined or not), and methodology" (Holden & Lynch, 2010, p. 03). The researcher understands that a separation must be established between participants' assumptions concerning financial issues (subjective) from the facts (objective). These study processes and procedures can be replicated by other research facilitators utilizing



the same study methodology, action research, Schalock's (2001) OBE, and Stringer's (2007) LTA.

### **Data Analysis and Evaluation Report of Research Questions**

This section will present the results of the data analysis of the research questions. The evaluation was guided by the AR emergent themes and research objectives. To reiterate, the research objectives were (1) to assess the impact of federal civilian financial counseling and educational programs and (2) to find solutions that will mitigate current federal financial literacy program deficiencies. The emergent themes were (1) interest in subject, (2) AFEC value, and (3) preferred learning format.

#### **Analysis of Principal Research Question 1**

Research Question 1: What are the perceived inherent shortcomings that have impacted the current AFEC educational program?

To assess the financial literacy gap, the participants were given a general financial knowledge test. From the quantitative data collected and analyzed (Table 3), it was clear that there was no financial literacy gap among the Activity participants. The 88% frequency of responses for understanding and comfort indicated that the all 11 Activity participants did not have a financial literacy knowledge gap. This is not to say that there was no room for improvement, as there were areas such as AFEC field outreach that could be expanded, as well as curriculum that could be improved by providing e-classes, but a frequency of 88% reflected no obvious financial literacy gap.

The only aberration was Question 10 (Q10): What is the Federal Deposit insurance limit for a bank account? The answer indicated it was \$100,000, which 10 participants thought was incorrect and answered false. They failed to consider the rest of the question,

which asked would a person's money would be safe if he or she had less than \$100,000. The test data results presented a disagreement with available literature and studies, and it could be explained by the fact that financial literacy is indirectly tied to Activity employee retention. For example, bad credit could mean the loss of security clearance and the loss of employment. The stakeholders were given a financial literacy test prior to attending or participating in the AFEC program, and the results denoted on Table 3 indicate that the stakeholders were financially literate before participating in the study or requesting assistance from AFEC.

*Table 3. Quantitative data frequency of responses from test*

Questions	Incorrect	Correct
Q1	9%	91%
Q2	0	100%
Q3	18%	82%
Q4	18%	82%
Q5	9%	91%
Q6	0	100%
Q7	0	100%
Q8	0	100%
Q9	0	100%
Q10	73%	27%

Note: Test taken before enrolling or utilizing AFEC services.

The AFEC's perceived inherent shortcomings had little impact on participants due to the participants' current level of financial knowledge. The number of AFEC sponsored programs offers a multitude of approaches to divulge financially related information. This includes the Activity ALL network announcements (e-mail format), courses, flyers, coaching sessions, and presentations. The AFEC also offered a presentation to all newly hired personnel as part of the in-processing indoctrination presentations. As opposed to shortcoming identification, this can thus explain the participants' comments, such as:

- “I feel comfortable when dealing with anything related to financial management, but if I need help I go to the AFEC” (OELS313).
- “[I am] very comfortable with my understanding of financial vehicles and subjects. I go to the AFEC for answers and classes” (PNRBF242).
- “I believe that I have the financial knowledge needed, but if need [more], I seek assistance from AFEC” (CAJDP9).

There is an understanding among all participants that the AFEC is available, which ensures that they have the skills required to properly manage their finances. The questions were presented to all participants. The codes and themes that emerged from the analysis of their responses are provided in Figure 7.

### **Analysis of Research Question 2**

Research Question 2: To what extent has the AFEC program been effective in advancing the financial knowledge, attitudes, and behaviors of the young adults? The closed-ended questions were provided to all participants via e-mail. On this questionnaire form, each participant had the opportunity to rate his or her understanding and comfort level with subject on a scale of 1 to 5. The participants could rate their overall understanding of the subject matter and level of comfort when making decisions about the items: 5 for high level of understanding, 1 for a very low level of understanding. The participants also rated their interest and how relevant each subject was to their learning more: 5 for very important/relates to me, 1 for does not apply to me/no interest. The participants provided various responses, which reflected similar views concerning their assessment that the program was effective in advancing financial literacy, responses, supported this point, including:

- “I understand all subjects and feel comfortable talking about them. If I do not understand, I Google the subject. I also go to the AFEC for advice” (ISMS2H).
- “I am comfortable with this subject [savings/investment] and do save a percentage of my basic pay. I also have an emergency fund. If I need information, I go to the AFEC and Google it” (MJLS2E).
- “AFEC has many programs and classes that help learn to better manage my budget” (GASS2C).
- “I don’t trust banks, so I use the TSP. Yes, very comfortable with my understanding of financial vehicles and subjects. I go to the AFEC for answers and classes” (PNRBF242).
- “I do attend AFEC classes to update my personal knowledge. The [AFEC] coach is very helpful. I am very comfortable with this subject” (JJS32).
- “I have a budget, follow it, and feel very comfortable with my understanding of this subject. This is a very relevant subject. If I need more information, the AFEC program classes and Web pages contain lots of good information” (PNRBF242).

Detailed quantitative results from the frequency analysis are provided in Table 3

### **Theme 1.**

*Interest in learning.* The participants’ recurring theme concerned their interest in learning more about financial subjects. The consensus was that they did not perceive any AFEC program shortcomings. The program provided excellent support and access to financial information. The emerging themes revolved around the ways participants could learn more; in other words, on ways to learn. Note: For table 4, the before responses indicate

before participants enrolled or contacted AFEC, and the after responses refer to after participants attended or contacted the AFEC for assistance.

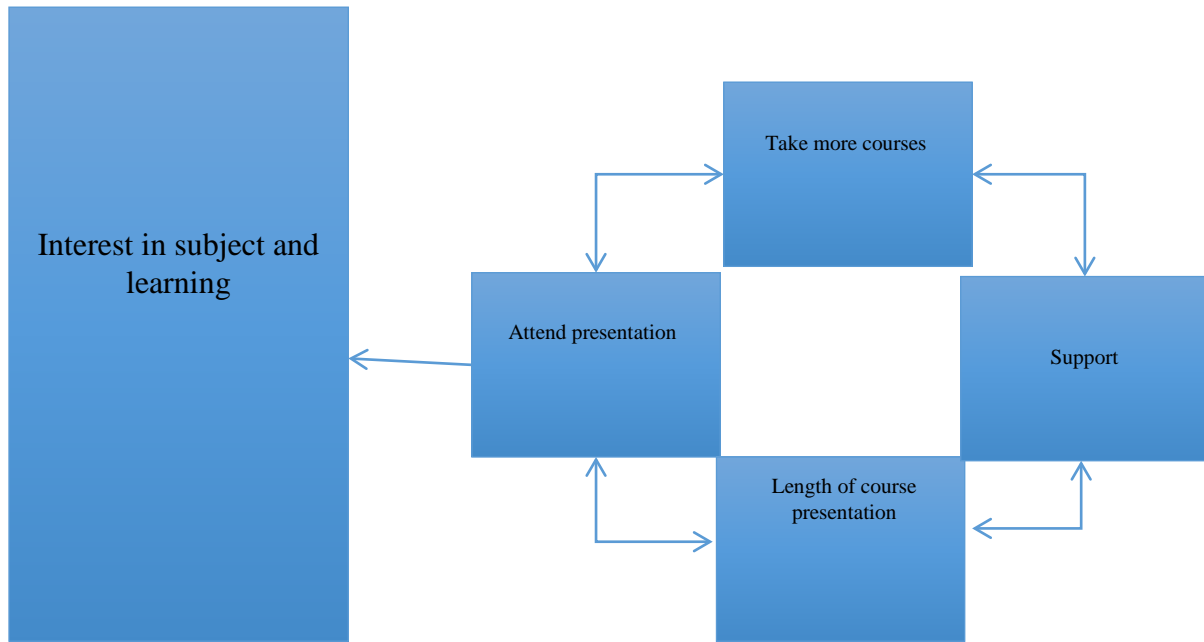


Figure 7. Theme 1: Interest in Learning.

Table 4.

Quantitative Data Frequency of Responses from Interview Form

Question	1 (No Interest)	2	3	4	5 (Very important)
Before Interest/Relevance		7.7%	9%	12.9%	70%
After Interest/Relevance					100%

Note: Before indicates before enrolling or contacting AFEC, and after indicates after attending or contacting AFEC for assistance.

The results of the interest and relevance were directly associated with obliterating the perception of the AFEC's shortcomings. The participants were in complete consensus that the AFEC provided the programs and information they needed. The only comments were concerning the length of classes and courses, to limit them to no more than three hours long.

The quantitative results related to the interest and relevance of learning and AFEC financial literacy program topic was further supported by qualitative data, where 100% of the stakeholders responded positively to the questions concerning interest and relevance, which are further supported by stakeholders' feedback, including:

- “The AFEC classes and coach helped me to answer all [financial] questions; for this and many other reasons, the AFEC made learning relevant” (OELS313).
- “I had lots of help from parents, friends, and the AFEC coach, so AFEC is relevant to my learning” (CJTV2).
- “Usually I Google or go the AFEC for additional information. AFEC is relevant to my financial learning” (GASS2C).
- “I feel comfortable enough with AFEC assistance; they [AFEC] are relevant and important learning resources for financial information” (MYBF24).
- “Learning financial subjects is critical to my well-being” (JJS32).
- “I learn as I need; the format is not as important as having access to learning tools. AFEC provides the vehicles to learning. They can improve [programs] as we participate and provide feedback” (OELS313).
- “We deal with money decisions every day, so learning about money is very important to me” (TPRS2G).

***Interest to take more courses and attending presentations.*** The participants expressed interest in expanding their knowledge base by taking additional courses. It was apparent that even though each participant had a good financial understanding, they still wanted to expand their knowledge by taking additional financial education courses. When

the participants were asked to identify which format would be the best to learn, taking courses and attending presentations emerged as their preferred choices. The participants' responses in respect to this theme were:

- “The financial environment is in constant flux. I need to stay current. Taking courses and learning is my number one priority. Yes, I prefer presentations, but both courses and presentations are good for learning” (CJTV2).
- “AFEC courses are helpful, so if they offer any additional courses, I will take them. I also like presentations for learning” (ISMS2H).
- “Financial subject is very broad; it never hurts to expand knowledge, so more courses, as long as they present new material, is a good thing. Depending on the subject, I sometimes respond to presentations better than classes” (MJLS2E).
- “Access to more subjects and classes provides the opportunity to learn more. Also, attending the same class a few times is helpful; some of these subjects are hard to understand. As for presentations, they tend to be a bit more amusing than classes, so I pay more attention and learn more” (MYBF24).

***Length of course or presentation.*** The participants expressed a concern with the length in reference to time of courses and presentations. The participants' concern was mainly in respect to how the effectiveness of a course or presentation is impacted by its duration (i.e., length in time). The consensus of the participants was that placing a limit of between 45 minutes to one hour in length was acceptable and reasonable. When the participants were asked how they thought they could best learn, an emerging theme was the

length of time of the course or presentation. The participants' responses in respect to this theme were:

- “For learning, really learning and understanding the subject, no more than one hour sessions; if more than that I do not learn much” (ISMS2H).
- “Even if the subject is a complex one, I tend to lose interest after 45 minutes or so, so for me, for learning purposes, I prefer no more than one hour sessions” (JJS32).
- “I am not sure, but I think an hour is about my limit, depending on subject that we are discussing and how complex it is to learn it” (MYBF24).
- “Good question; I will say 45 minutes, short and sweet. More than that is a bit too much for my attention span” (OELS313).
- “I cannot keep concentration after about an hour, so if I need to learn anything, it better be in 45-minute to one-hour sessions, or else I learn little or nothing” (TPRS2G).
- “Definitely one hour, my attention span fades away after that, so learning becomes a moot point” (PNRBF242).
- “For learning, my prime is 45 minutes, maybe an hour, but that is it” (RMVS2E).

***Support received.*** The participants expressed satisfaction with the level of support the AFEC provided them. Participation in this study increased their awareness of the benefits the AFEC programs provided to them. The participants' interest in expanding their financial knowledge was considered well-supported by the AFEC. When the participants were asked



how they would best learn, the emerging theme was support for their knowledge needs. The participants' responses in respect to this theme were:

- “They [AFEC] provided a good level of service and alternatives. The AFEC meets my needs and listens to my questions” (CJTV2).
- “Even though the coaches are a bit busy, they always meet my needs and support me. They just look a bit too busy, but they never failed to support me” (JJS32).
- “Sometimes it was hard to contact the coach, but they always respond to my e-mails. The Web page contains enough information, and the courses answer many of my questions. I am happy with the level of support I received” (MJLS2E).
- “Very good support, but as anything else, there is always room for improvement, like having more coaches available to meet at any time during the day” (OELS313).

## **Theme 2.**

*AFEC value.* The participants' recurring theme concerned their interest in learning more about financial subjects, as well as how the AFEC was valued as the primary source of financial information and education. For this reason, the participants' consensus was that they did not feel that the AFEC program had specific shortcomings. The program provided excellent support and access to financial information. The emerging theme was mainly about the value the participants perceived the AFEC program was providing them. For example, all AFEC services are free and easily available. They also commented on the number of venues to learn or acquire financial information from AFEC. CJTV2 commented, “I am interested in

learning more, and AFEC is a reliable partner and source of financial information.” JJS32 commented, “It is easy to enroll and attend AFEC classes to update my personal knowledge. The [AFEC] coach is very helpful. I value their help and the coach has my full trust.”

Additional participant responses in respect to this theme included:

- “The programs that the AFEC offers are very valuable to me. They provide me the information I need to make good financial decisions” (CAJDP9).
- “No way to not see the AFEC as a valuable resource, since everything these days have to do with money and very complex investment options. The AFEC is the source of valuable information and assistance, and better, it is at no cost to me” (GASS2C).
- “Many of my friends can’t believe that we get financial counsel and classes for free. This is an excellent service. I value their services and easy access to information” (MJLS2E).
- “I see the value inherent in this program when dealing with financial subjects; we all need help now and then” (PNRBF242).

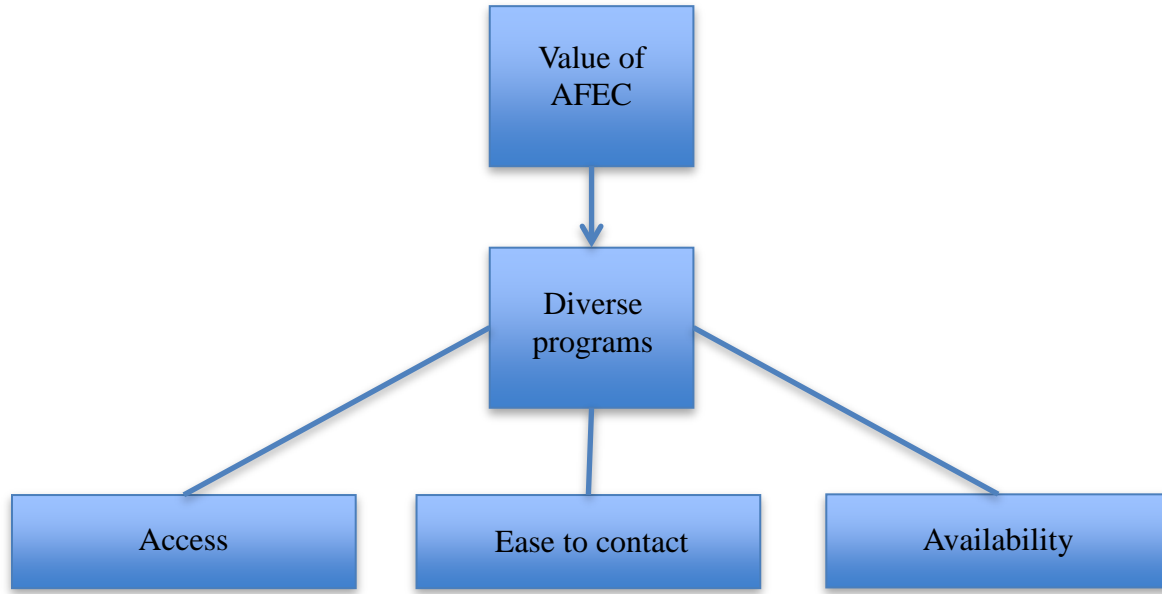


Figure 8. Theme 2: AFEC value.

**Diverse programs.** The participants' recurring theme concerned their interest in learning and how the diverse AFEC programs provided additional value as sources of financial information and education. The participants' consensus was that the AFEC program provided well-designed diverse approaches to learning. This was supported by the participants' responses in respect to this theme:

- “It is obvious that the AFEC is trying to satisfy many requirements, not bad; good diversity of programs” (MJLS2E).
- “I like the AFEC approach to teaching and counseling. They did not lock into sponsoring one program or offering just one choice” (MYBF24).
- “One size fits all is the wrong way to approach a subject like financial education. AFEC's diverse approach is the best, as it provides several choices that fit each person needs” (PNRBF242).

- “Yes, a good number of programs to choose from; hard to not find something that fits the diverse needs of the community” (RMVS2E).

***Access to programs.*** The participants required quick and easy access to the program tools. This was perceived as a plus to fulfill participants’ needs. The AFEC was valued as the primary source of financial information and education, so access was an emerging theme within the value of the program. For this reason, the participants’ consensus was that they did not perceive the AFEC program to have specific shortcomings. Access to the program was excellent and it was therefore viewed as a valuable program. This was supported by the participants’ responses, which included:

- “Excellent access to information and counseling” (ISMS2H).
- “No issues; happy with ease of access to financial information” (MYBF24).
- “I am impressed with how easy is to access information from the AFEC Web page; signing up for classes is very easy too” (TPRS2G).
- “Access, no problem; very easy to reach out and get in touch with them” (RMVS2E).
- “I am happy with the access and service” (PNRBF242).

***Ease of contact and availability.*** The participants’ emerging theme regarding value were ease of contact and availability of the program. The participants’ concern continues to focus on ways the program met their interest in learning more about financial subjects. Part of the participants’ emerging theme regarding the value of AFEC was that the program value was also dependent upon the ease of contacting stakeholders and the program resources’ availability to each participant and the community. The consensus was that the program

provided easy ways to contact stakeholders, and the program resources were easily available.

These emerging themes were supported by the following participants' responses:

- “Maybe sometimes it is hard to call and talk to someone, but I understand that they serve a large audience. On the other hand, e-mails are replied to pretty darn quick. The Web page offers an alternative way of contacting AFEC. I had served in the field and found that availability was not as easy as at headquarters. One recommendation: improve access to field personnel” (OELS313).
- “The fact that the program is free; it is available to all. However, I heard that for field personnel, some courses are not easily available. Maybe that is something that AFEC should correct” (GASS2C).
- “I had a problem calling, but my e-mail got a quick response, so overall they are easy to contact. I like how easy is to enroll in courses; no requirements and no cost; can't think of how this program could be more available” (MYBF24).
- “Never had a problem; call, write e-mail, or contact through the Web site. The program services are just a click away; availability is never a question” (MJLS2E).
- “Easy to contact, no issues. The program's classes and presentations are easily available and free of cost” (RMVS2E).
- “Very easy to contact, just access the Web site. Part of the value is that it is readily available” (CAJDP9).

From the quantitative data collected and analyzed (Table 4), it was concluded that the AFEC intervention did advance participants' subject matter knowledge and attitude toward changing behavior, therefore proving to be a valuable resource.

*Table 5.*

*Quantitative Data Frequency of Responses from interview form related to understanding*

Question	1 (No Interest)	2	3	4	5 (Very important)
Before Understanding/Comfort	0	54.5%	31.1%	12.9%	.1%
After Understanding/Comfort	0	0	40.2%	57.1%	2.5%

Note: Before indicates before enrolling or contacting AFEC.

The responses to the question: “What is your understanding and comfort on this subject matter: credit cards, scores and reports, checking account and student loans, and savings and Investing?” provided insight concerning the value of the AFEC intervention and how it further advanced participants' subject matter knowledge and attitude toward changing behavior. CAJDP9 stated, “I fully understand the subject. Credit card use is limited, don't like to use. I do not believe in credit reports. However, the AFEC has highlighted some information that I had forgotten.” RMVS2E commented, “Even though I fully understand credit cards and other financial tools, the AFEC coach and classes provided the resources to update my knowledge.” In summary, concerning the value of the AFEC programs, all 11 stakeholders—100% of responses—provided only positive responses. No negative responses were detected or received concerning the value of the AFEC program.

### Analysis of Research Question 3

Research Question 3: How do the collaborative efforts of the AFEC program stakeholders and young adults better develop a strategic improvement plan for the current curriculum of the AFEC program?

Questions asked on the financial literacy questionnaire included:

- How relevant is this subject matter to you and how interested are you in collaborating to learn more?

#### Theme 3.

*Interest in the subject.* The participants continued to express their interest in learning more about financial matters and AFEC offerings. They also mentioned the excellent support the organization's leadership gave when attending courses and presentations. When asked how comfortable they were with the AFEC, the consensus was that they recognized that the AFEC stakeholders wanted to collaborate with participants to improve the program. Therefore the participants viewed the AFEC feedback forms as an excellent way to collaborate on developing a strategic plan to be used to improve the learning experience, as well as to heighten interest in the subject and the value of the program.

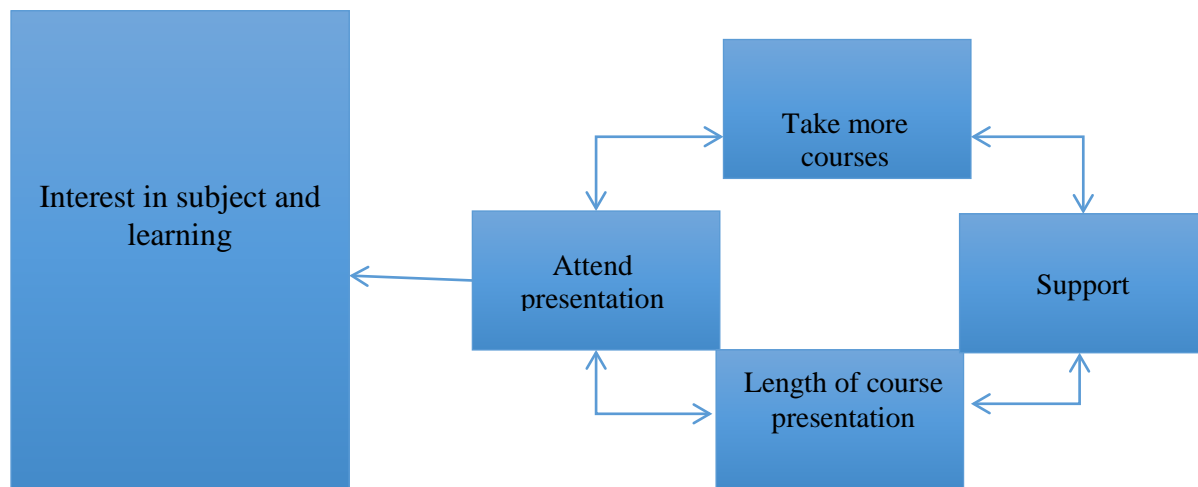


Figure 9. Theme 3: Interest in Subject.

Figure 10 captures the responses provided by the 11 participants concerning their interest in financial subjects and the ways in which the AFEC provided the vehicles for learning. Figure 10 is a compilation of the main emerging theme and four sub-themes presented in Figure 9 for theme 1 and 3. Figure 10 reflects the group's consensus and the little variance of responses to questions concerning the AFEC program value, participants' interest in learning, and interest in subject matter. The y-axis represents the numerical value of importance of questions concerning subject and value. The number 1 represents the highest importance sliding to 3, which corresponds to the lowest level of importance given by the research group participants. Also on y axis, the numbers 4 and 4.5 represent the yes (4) and no (4.5) responses given by participants to the question addressing learning the subject. The x axis represents the number of participants in the research group. The figure captures the responses of each participant.

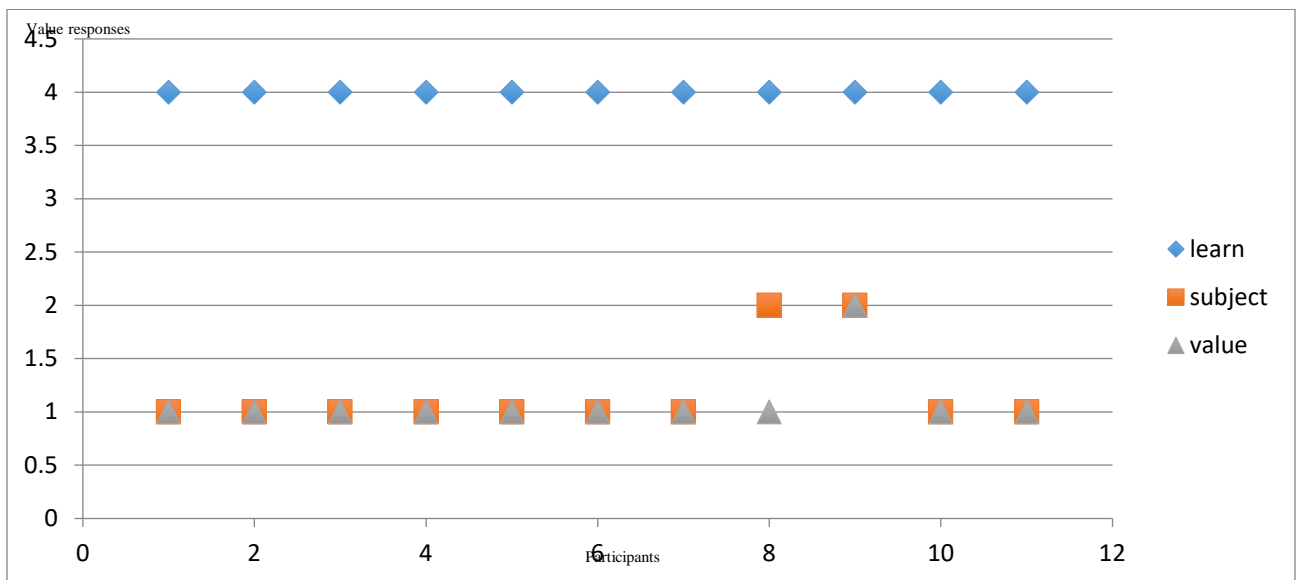


Figure 10. Interest in learning, subject and value of program.  
Note: High=1 Medium=2 Low=3. Yes=4 No=4.5.



Table 6.

*Quantitative Data Frequency of Responses from Questionnaire*

Question	Format 1	Format 2	Format 3	Format 4
Preferred	81%	82%	72%	54%

Note. Format 1 = Presentations, Format 2 = Meet counselor, Format 3 = Attend course/class, and Format 4 = Read information. Data analysis from Dedoose and Excel.

The 11 participants' consensus, as presented in Figure 10, was that they wanted to learn more, and for this they preferred the meeting with a counselor format (format 2). In the response to the question asking which of the four formats they liked, the presentation format was a very close second (format 1). No new themes emerged from this question, as the emergent themes from Questions 1 and 3 were similar. Additionally, the emerging theme, interest in subject, was further supported by the following participant responses:

- “I am interested in subject, lots to learn; lots of opportunities to collaborate to keep the program current” (CAJDP9).
- “In reference to interest in the subject and collaboration, to certain extent, we all are, or should be. Finances have a direct impact on our quality of life. Collaboration is critical to developing a solid program” (CJTV2).
- “Financial knowledge is a must. Everything is just too complex, and there are just too many scam artists ready to take advantage of our ignorance. So, yes, I have a high level of interest in this subject and collaboration to maintain program effectiveness” (MJLS2E).

- “Financial knowledge is critical to stay out of [financial] trouble, yes, I am interested in learning and collaborating to support a continued improvement process of the program” (PNRBF242).

In summary, the participants’ consensus was that collaboration added value and would foment the development of an effective strategic plan that would positively impact the AFEC courses, presentations, and support provided to the community.

### **Critical Reflective Action Learning and Program Evaluation Report**

The critical reflective action learning (CRAL) is a learning and reflective approach that uses action from the learning about and reflection on the problem to resolve complex problems (Skills for Care, 2014). The purpose of CRAL is to improve human systems to benefit the people who depend on the system (Pedler, 2011). To accomplish this, the CRAL utilizes reflection as the tool to ask (i.e., learn) and derive problem-solving solutions that take into account (i.e., reflect upon) organizational and personal dynamics (Harrison, 2012; Rigg & Trehan, 2003).

CRAL is designed to help address and resolve complex problems by proposing the inclusion of participants and stakeholders to a point where they develop a robust relationship (Skills for Care, 2014). CRAL also helps to make sense of an experience, interpret that experience, and guide participants through a decision-making process to take action (Mezirow, 1990). CRAL triggers participants’ sense of ownership, which enhances the collaborative environment to critically self-assess, explores solutions to the problem, and takes action to resolve it (Sankara, Dick, Passfield, & Swepson, 2001).

For this case study, CRAL was implemented after the data analysis step, with the inclusion of the participants. The overall goal of utilizing measurable actions was used to

improve financial knowledge that could influence a change in young adults' financially related attitudes and behaviors. The CRAL approach was useful in developing and facilitating communication between participants and stakeholders, resulting in a successful resolution of the program's perceived shortcomings. The CRAL was also a component in the development of the program's strategic plan, which is fully described in chapter 5.

### **Critical Action Learning and Program Evaluation Report 1.**

***Time frame.*** The stakeholders and researcher facilitator agreed on a timeframe from January 2015 through July 2015 to accomplished goals.

***CRAL activities' environment.*** The Activity network and e-mails were utilized for all activities as the most effective and neutral environment for all participants. All stakeholders accepted this vehicle of communications as a proper, flexible, and non-threatening environment for participation.

***Stakeholder participants.*** Out of 11 participants and one stakeholder, six participants volunteered to participate in the CRAL process. Five participants were members of the Activity and one was a member of the AFEC.

***Overall goal setting.*** To utilize OBE framework to proliferate an awareness of the AFEC program for young adults to enhance overall program understanding that highlights the need for young adults' financial knowledge.; to utilize the framework to illustrate the need for continued budgetary support that is sustained by understanding the critical role that the AFEC program plays in assisting young adults in maintaining their well-being.

***Outcome Objective 1.*** By February 2015, the participants and stakeholders were collaboratively involved in addressing the purpose of the OBE (Schalock, 2001), which involved Steps 1 through 4 of Stringer's (2007) *look phase* of building the picture, aligned in

conjunction with Merriam's (1998) *judgment phase* of the evaluative case study model, along with the OBE models of Chen (2005), Kusek and Rist (2004), and Schalock (2001) that facilitated suitable data collection for this study.

***Process Objective 1.*** Complete by July 2015, the stakeholder and participants completed Steps 1 through 4. The research facilitator collaborated with stakeholders and participants to better understand program (Step 1) and define key performance indicators (Step 2) by gathering baseline data to establish the current program's position to measure program outcomes during analysis phase (Step 3) to conduct collaborative self-assessment to identify personal shortcomings and biases, and (Step 4) collect data.

***Description of critical program activities.*** By working closely with the stakeholder and participants, it was possible to assure that results and recommendations were properly considered. The method of inquiry was based on the composite logic of the OBE case study approach. This was utilized to answer the research questions and the convergent analysis and methods triangulation used for validation and verification of the case study findings (Chen, 2005; Creswell, 2009, 2013a, 2013b; Ivankova, 2015; Kusek & Rist, 2004; Patton, 2002; Schalock, 2001). In Step 1, the research facilitator collaborated with stakeholders and participants to better understand the program and define key performance indicators. Step 2 was utilized to gather baseline data to establish the current program's position to measure program outcomes during the analysis phase. During Step 3, the research facilitator conducted a collaborative self-assessment to help identify personal shortcomings and biases. It also helped to monitor and mitigate biases in collaboration with stakeholders and participants. Step 4 was utilized to collect data.

Throughout the steps, the research facilitator and participants exchanged communications to assist in identifying and isolating the primary purpose of the OBE case study and venues to utilize results and the implementation approach. This occurred through communications exchange (i.e., e-mails) focusing on data methods triangulation from the questionnaire responses (quantitative data) and focus group (qualitative data). The research facilitator provided action research and OBE literature to participants and mentored the participants through the process with the purpose of advancing their knowledge and abilities, as well as to create a sense of ownership of the process and program. The approach to validity utilized Patton's (2012) concept that [methods] triangulation strengthens a study and Golafshani's (2003) ideas that multiple resources and investigations must be implemented to improve analysis and understanding. Therefore, the validity and reliability were addressed by the utilization of an outcome-based evaluation case study with a participatory-oriented strategy, coupled with a convergent criterion-related validity (Fitzpatrick et al., 2011; Merriam, 2009; Royse et al., 2010; Schalock, 2001). Further, the research facilitator utilized methods triangulation as a springboard to maximize the reliability and validity of the case study data collection, analysis, and findings (Golafshani, 2003, Patton, 2002).

***Recognition of practical knowledge.*** The principal rationale for this case study was to assess the impact on the actions (Rossi et al., 2004), thinking, and the use of findings to generate participants' conclusions and solutions. The need for collaboration with stakeholders was a critical element in the action research and OBE, as stakeholders and participants assist the research facilitator in expanding site knowledge and the exploration of problems and issues (Herr & Anderson, 2005; Stringer, 2007). The participating members had various positive comments concerning the knowledge gained, including comments such

as “[the] knowledge of program processes and young adults’ needs were critical to understanding the case study purpose” (PNRBF242).

CAJDP9 remarked, “It was good to be part of the process. I like finding solutions to problems. Ownership of the process helps bring solutions and encourages participation to make things better.” JJS32 said, “[I] never thought that by participating in a case study, it could help me understand a program’s complexity and requirements. Knowledge gained during this process helped me grow and expand my perspectives about financial subjects and the need to know more.”

***Social context of collaboration and engagement.*** In the social context, action research utilizes a holistic approach to explore a problem under the premise that no problem is independent of the social context of a specific environment (Herr & Anderson, 2005). The research facilitator worked under the assumption that all participants were impacted by the problem (Stringer, 2007), so the participants’ engagement throughout the case study was vital for a successful investigative process.

***Critical action learning in practice.*** The OBE process of data collection and analysis provided the 11 participants with the opportunity to identify the problem statement and to reflect on learning from the collected data. This is evident from the participants’ application of theories to practice and reflected how well they related concepts and models to current situations. Acquiring program and process knowledge helped to expand the “knowledge of program processes and young adults’ needs, [which] were critical to understanding the case study purpose” (PNRBF242), and “it was good to be part of the process. I like finding solutions to problems” (CAJDP9).

***Critical reflection and change.*** The significance of the study lays in the study results and findings that can enable the AFEC stakeholders to develop new performance goals, objectives, and program strategies that support changes to current service delivery practices within the AFEC financial literacy program (Fitzpatrick et al., 2011; Schalock, 2001). To the broader financial literacy audience, this study can aid in knowledge production that can assist the financial services industry's federal literacy managers. "The AFEC program is a good program that just appear[s] to require some fine-tuning. The data collected appears to have reinforced my opinion" (CAJDP9).

***Critical program evaluation.*** The data analysis and themes provided the participants with a platform that assisted them in successfully completing critical program activities by adhering to outcome objectives. The participants succeeded in establishing the idea of better communication in disseminating information regarding the AFEC program.

***Action plan for the next step.*** To assess collected data and evaluate how data can be utilized to better AFEC program curriculum and outreach.

## **Critical Action Learning and Program Evaluation Report 2.**

***Time frame.*** The stakeholders and researcher facilitator agreed on a timeframe from July 2015 through September 2015 to accomplish the stated goals.

***CRAL activities' environment.*** The Activity network and e-mails were utilized for all activities as the most effective and neutral environment for all participants. All stakeholders accepted this vehicle of communications as a proper, flexible, and non-threatening environment for participation.

**Stakeholder participants.** Out of 11 participants and one stakeholder, six participants volunteered to participate in the CRAL process. Five participants were members of the Activity and one was a member of the AFEC.

**Overall goal setting.** To utilize the OBE framework to proliferate an awareness of the AFEC program for young adults to enhance overall program understanding that highlights the need for young adults' financial knowledge; to utilize the data analysis and findings to support the need for continued budgetary support that is sustained by understanding the critical role that the AFEC program plays in assisting young adults to maintain their well-being.

**Outcome Objective 2.** By September 2015, participants and stakeholders collaborate to complete Steps 1 and 3 of the case study. The research facilitator and participants followed the concepts within Stringer's (2007) *think phase* for interpretation and analysis in conjunction with Merriam's (1998, 2002) *explanation phase* of the evaluative case study model, along with the OBE models of Chen (2005), Kusek and Rist (2004), and Schallock (2001) to facilitate data analysis of this case study.

**Process Objective 2.**

- *Step 1:* Data analysis was conducted in collaboration with program stakeholders. The data was organized and segregated into relevant or irrelevant categories in relation to the research question and objectives. Relevant data was sorted into categories, and each category was coded and saved into the database.
- *Step 2:* The research facilitator collaborated with the program stakeholders to apply methods triangulation to collected data and analysis of statistical results.



This was done to assemble them into a narrative that provides interpreted data in an understandable manner using language that is familiar to both stakeholders and participants.

- *Step 3:* The research facilitator organized and recorded interpretations in collaboration with the program stakeholders. The draft interpretation document is the precursor to the final report.

***Critical action learning in practice.*** The participants' assistance during the action research efforts provided us with an opportunity to exchange opinions of the perceived problems and the means to resolve them, which in turn influenced the development of a strategic action plan. This was made self-evident during data analysis and theme development, where each participant provided input that could be utilized to promote program improvements to resolve the perceived problems. The participants made helpful comments concerning communication and program process, including:

- “Financial education program and young adults’ needs were being met; it was confusing to find that the perceived shortcomings were just that: perceived” (PNRBF242).
- “Ownership of the process helps to bring solutions and encourages me to participate to make things better” CAJDP9.
- “Looking at data help us realized that some fine tuning was required” (Adam).

***Critical reflection and change.*** Close collaboration between research facilitator and participants called for the attention to the CRAL cycle of transformative change and the ways the cycle provided the participants with the opportunity for reflection on the importance of their participation, knowledge, thought processes, action, and learning. The participants’

transformation occurred through reflection, which in turn elicited recommendations that incorporated the community at large in formulating the strategic action plan. The main goal became anything that “could improve the program, taking into consideration that, as people change, programs should also adapt and change” (CAJDP9), and that “communication between all parties is critical to expanding program awareness and process” (GASS2C).

***Critical program evaluation.*** The deadlines were successfully met, with activities and objectives satisfying the specific outcome objective. The knowledge produced during the reflective cycle provided a measurement of the success of the process, where the participants highlighted recommendations to improve communication and curriculum. The adoption of participants’ recommendations could assist in expanding community participation, but due to case study timeline restrictions, measuring the results of or the impact on the participants’ recommendations was not within the scope of this case study.

***Action plan for the next step.*** To utilize collaborative exploration toward developing a useful strategic plan that will advance the program scope and value to young adults and the community at large.

### **Critical Action Learning and Program Evaluation Report 3.**

***Time frame.*** The stakeholders and researcher facilitator agreed on a timeframe from September 2015 through December 2015 to accomplish the stated goals.

***CRAL activities’ environment.*** The Activity network and e-mails were utilized for all activities as the most effective and neutral environment for all participants. All stakeholders accepted this vehicle of communications as a proper, flexible, and non-threatening environment for participation.

**Stakeholder participants.** Out of 11 participants and one stakeholder, six participants volunteered to participate in the CRAL process. Five participants were members of the Activity and one was a member of the AFEC.

**Overall goal setting.** To utilize OBE and action research findings to develop a strategic plan for the AFEC program that will enhance the program's continuing improvement process; the result will enhance program support of young adults understanding and highlight satisfying young adults' financial knowledge. To utilize the framework to illustrate the need for continued budgetary support that is sustained by understanding the critical role that the AFEC program plays in assisting young adults to maintain their well-being.

**Outcome Objective 3.** The research facilitator and participants successfully collaborated in the concepts for a strategic plan that should enhance the engagement of the Activity young adults and the community at large. The collaborative effort and strategic plan conceptualization help to eliminate perceptions, increase program awareness, and increase funding and support for the AFEC program.

**Process Objective 3.** By December 2015, in collaboration with stakeholders and participants, implementation of the final two steps was completed, abiding by the case study's actionable steps based on Stringer's (2007) *act phase* of resolving problems, planning, and implementation of sustainable solutions in conjunction with Merriam's (1998) *description phase* of the evaluative case study model, as well as the OBE models of Chen (2005), Kusek and Rist (2004), and Schalock (2001). This facilitated conceptualization of strategic planning and AFEC management adoption of this case study's findings and strategic plan concept to be utilized to resolve program shortcomings.

***Description of critical program activities.*** The completed case study actionable steps were based on Stringer's (2007) *act phase* of resolving problems, planning, and implementation of sustainable solutions in conjunction with Merriam's (1998) *description phase* of the evaluative case study model. These provided the participants with a platform for collaboration where they formulated actions that lead to resolving the perceived problems (Stringer, 2007). The participants worked on the central, perceived program shortcomings, engaging in the process, and formulating ideas and concepts that systematically addressed process tasks that lead to the development of the concepts for the strategic plan. From this, the research facilitator and participants utilized Stringer's (2007) framework of action phases:

- Planning, which involves setting priorities and defining tasks.
- Implementing activities that help participants accomplish their tasks.
- Reviewing, in which participants evaluate their progress.

The two-step approach was utilized to complete this objective. Step 1 included the research facilitator and participants, which organized the interpretation and findings from collected data. During Step 2, the research facilitator and stakeholders documented the concepts to be used for the strategic plan. This plan melded concepts and approaches, including the program's overall goals, objectives, activities, and strategies for the implementation of sustainable solutions and resolutions.

***Recognition of practical knowledge.*** The interaction between the research facilitator and the participants provided the participants with an environment where they learned practical knowledge that assisted in the development of the strategic action plan based on reflection of the case study results. The recommendations were highly focused on the three

main themes. These themes expanded the awareness of the need and importance of the program and solutions to the perceived program shortcomings: young adults' financial literacy gap. The participants' comments attested to participants' growth in awareness and knowledge, including:

- “The AFEC program is a good program that just appear[s] to require some fine-tuning, a review of the program appears to [have] reinforced my opinion” CAJDP9.
- “Looking at data help[ed] us realize that some fine tuning was required” (Adam).
- “Collaboration and communication with others helped expand knowledge and focus on the principal problem” (OELS313).

The participants' personal statements indicated a change of each individual's experience and attitude caused by the reflective actions and case study processes.

***Social context of collaboration and engagement.*** The participants' interaction was the critical instrument that assisted in maintaining and fostering collaboration, which resulted in a positive learning and knowledge generation experience. The exchange of ideas was productive, and it helped to balance participants' perspectives, knowledge, and group dynamics. This observation was further supported by comments such as, “Working with everyone was a good thing, lots of perspectives and good exchange of information and data related to the subject. It was a great learning experience” (PNRBF242) and “Knowledge gained during this process helped me grow and expand my perspectives about financial subjects and the need to know more” (JJS32).

***Critical action learning in practice.*** The participants' learned that the general systems theory and the theory of profound knowledge are both self-reflective and propose that organizations' programs have interdependent processes that cannot operate

independently (Hammond, 2010). This provided a solid foundation that helped participants stay focused on the case study purpose. These theories in tandem with the OBE and action research approach further helped participants to think critically, analyze, and reflect on the facilitated conversion of abstract ideas. This allowed them to translate their skills into practice. The result of participants' experience was the developments of concepts toward a strategic action plan that with participants' ideas made a practical document.

***Critical program evaluation.*** The case study processes promoted critical reflection that made the participants challenge their knowledge and pushed them to learn and re-interpret their experiences. This helped participants generate new knowledge that increases the self-awareness needed to drive change. This was highlighted by comments such as, “Knowledge gained during this process helped me grow and expand my perspectives about financial subjects and the need to know more” (JJS32), and “Knowledge of program processes and young adults' needs was critical to understanding the case study purpose” (PNRBF242).

***Action plan for the next step.*** The success of this collaborative effort was due to the participants' opportunity to reflect on changes that were to take place due to the knowledge gained during the reflective process. In this process, the participants had the opportunity to outline recommendations to be considered for inclusion in the strategic action plan. These steps included considering different ways to enhance the community perception of the AFEC program. Further details of the strategic plan are outlined in Chapter 5.

### **Summary**

This OBE AR provided a venue for the participants to provide their perspectives in relation to financial literacy and the AFEC program. The OBE AR also provided the AFEC

program with feedback of the effects of the program. The stakeholders' decision to defer the critical action learning to after the completion and submission of this dissertation was due to stakeholders' interest in assessing the full study and not just the data analysis results. The stakeholders wanted to first read and discuss the study findings and recommendations with their leadership. This chapter described the research methodology, collected data, methods triangulation, and coding, in addition to emerging research design and data analysis results. The methods triangulation data analysis and evaluation reports included those of each of the research questions of the study. Chapter 5 will discuss the findings, the implications of the AR process to the AFEC program, and the recommendations for future study.

## **CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS**

### **Overview**

The research facilitator utilized action research and the OBE study approach to conduct a systematic probe into the FSI AFEC program and financial literacy. This study was conducted with the intent of gaining knowledge concerning the federally funded financial program's shortcomings and young adults' financial literacy gap. The findings reflect a variance between the study and the available literature and studies. This chapter will discuss the evaluation of the findings based on the correlation between themes, the conceptual foundation of the research, transformative change implications, actionable recommendations, and recommendations for future study.

### **Review of the Research Problem and Purpose**

This study's purpose was to assess and address the perceived problems with the FSI federal financial literacy program, specifically the AFEC's shortcomings and young adults' financial literacy gap. The available research literature mainly addresses financial literacy delivery methods, measurements of programs effectiveness and causation of problem (i.e., gap in knowledge), the impact on the economy and communities, and identification of the financial literacy gaps. It was also noted that none of the available literature by the IC discussed financial literacy programs or financial literacy gaps within the IC. This provided a unique opportunity to explore the subject in relation to the IC and its young adult members.

The utilization of action research and the OBE was utilized as the vehicle to discover new knowledge, identify action-oriented outcomes, increase understanding of the research



subject, assist in isolating results that are irrelevant, and provide a platform to execute rigorous research methodology (Herr & Anderson, 2005; Schalock, 2001). Additionally, the theoretical conceptual framework of the study was grounded in the general systems, profound knowledge, and financial literacy education theories, which supported and complemented the OBE and action research approach. The conceptual framework provided a holistic and pragmatic approach that was fundamental in the exploration of the financial literacy program deficiencies and opportunities to resolved assumed deficiencies.

The utilization of the AR and OBE approach promoted an environment that fostered positive engagement with stakeholders and participants. The study included 11 volunteers (participants) and one actively involved manager stakeholder as a point of contact throughout the study. Due to the small sample size and IC relationship, it is difficult to generalize results beyond the scope and focus of this study. This study did successfully assess the AFEC program's impact and how it increased participants' financial knowledge, attitudes, and perceptions. The study also provided findings that helped to promote an actionable change to further improve the AFEC program.

### **Significance**

A plethora of studies have been conducted concerning financial literacy and the financial services industry (FSI), particularly concerning young adults (Arthur, 2011; CFPB, 2013b; Jorgensen, 2007; OECD, 2012; Letkiewicz, 2012; Lusardi, 2008; Lusardi & Mitchell, 2011; Lusardi, Mitchell, & Curto, 2010; Lusardi & Tufano, 2009; Mandell, 2009; Xiao, Ahn, & Serido, 2014; Xiao, Chatterjee, & Kim, 2014). None, however, have converged, implemented, or utilized action research, systems approach, or the OBE approach to

investigate the financial literacy gap within the IC. This case study utilized two approaches to reach findings and conclusions.

1. The OBE framework provided the venue to assess the need for change by finding the link between AFEC process and outcomes of program.
2. The OBE focuses on outcomes that seek contributions, make choices, recognize that stakeholders control programs, and spotlight improvements and change (Schalock, 2001).

The AR component of the study approach provided the action of the study, meaning this is what was created, focusing on the collaboration with others who have a stake in the problem under investigation. Collaboration is the primer to open minds to the need for change, and this change must come from within (Herr & Anderson, 2005). All steps of the study process included the stakeholders. The collaboration, which was an integral part of the study, was cultivated from the initial introduction of the idea of conducting the study at the AFEC. The stakeholders' buy-in was based on transparency and dialogue. The significance of the study revolves around the contribution to the field knowledge and results that provokes change. These were only reached and made possible because of the stakeholders' and participants' buy-in, support, and trust in the research and research facilitator. This was a critical component of the study that led to sharing knowledge and solutions that address the process toward improving the quality of life (Stringer, 2007).

### **Analysis, Synthesis, and Evaluation**

The logic of the convergent parallel analysis design served as a framework for the data analysis. The use of convergent analysis provided the research facilitator with the ability to use multiple data sources to extend the understanding of the program's need and to assist

in the identification of different perspectives related to the program's objectives and goals, facilitating the data analysis. The collected data was then converted into a usable format that facilitated coding and identifying emerging themes. Stringer's (2007, 2009) action research as a framework and the *Look, Think, Act* approach of building the picture, combined with Merriam's (1998) *judgment phase* of the evaluative case study model, and the OBE models of Chen (2005), Kusek and Rist (2004), and Schalock (2001) were incorporated to facilitate suitable analysis and evaluation. Forty-two codes were identified, with three themes emerging from the data analysis. The three themes derived from the coding analysis supported the research literature's main subject: financial literacy is crucial for young adults' well-being.

### **Implications of Findings for Practice**

Two conclusions were drawn from the OBE action research case study. The first related to the need for financial knowledge, whereas the second related to the need for action to improve the program. The action approach utilized Stake's (1986) argument that stipulates that action or changes usually occur as the result of either external demands or the stakeholders' convictions that an action is necessary (Herr & Anderson, 2005). To influence stakeholders to take action, internal conviction was addressed by promoting stakeholders' involvement in the process by expanding participants' understanding of their financial literacy needs.

To further support action, consensus between stakeholders and participants was harnessed and utilized as the vehicle to introduce transformative change. The transformative change approach provided a cycle in which the participants and stakeholders could further reflect on the importance of participation and reflect on their knowledge, thought processes,

action, and learning (Zhang et al., 2011). Participants' principal transformation occurred through reflection. This encouraged the recommendations that incorporated the community's responses in formulating actionable changes to be introduced in the strategic action plan.

This study demonstrates the prominence of action-based studies. These studies address factual communities' problems and how they must utilize a systematic and holistic approach to implement true transformational actions. For this study, the short-term benefits were reflected in the immediate change produced by:

1. Awareness of the impact and consequences concerning the lack of financial literacy.
2. Need to expand knowledge of the subject and tools available to further knowledge.
3. Need for action concerning financial literacy programs and curriculum expansion that addresses young adults' needs.
4. Need to work together to further refine and update programs.

The implications of the findings to generate change are based on the collaborative knowledge gained from stakeholders' and participants' involvement in a mutual learning process (Greenwood and Levin, 2007). This process was intended to assist in improving and sponsoring program change (Schalock, 2001). The case study assisted in spotlighting the need to keep the AFEC participants' feedback as a vital link to the program's continued improvement process. The stakeholders recognized that the participants are vital parts of the AFEC program and process. This is noted as a critical component of the program system approach and was recognized and accepted by the AFEC program leadership. Therefore, participants' feedback was acknowledged as a critical element to support change from within (Herr & Anderson, 2005). Stakeholders and participants' understanding of the factors that

contribute to poor financial literacy can help drive the design of useful actions and change that can effectively target the young adult population (Lusardi et al., 2010).

In conclusion, the implications of the findings for practice were reflected in a manner in which the young adults and program stakeholders utilized a systems approach to participation in this action research case study. This induced changes in perception and understanding criticality of the financial literacy program. It also showed how financial knowledge is required to maintain and enhance the participants', families', and communities' well-being. The enhanced awareness helped the participants to change behaviors and attitudes toward financial literacy. This action research case study succeeded in increasing the motivation and drive of stakeholders and participants to collaborate in the implementation of a strategic plan that introduced the changes required to support and promote the expansion of courses and outreach of the financial literacy program.

### **Discussion of Findings and Conclusions in Relation to the Literature in the Field**

This study's findings differ from the available literature because the study spotlighted the value that the AFEC program provided to Activity members. The findings of this OBE action research study resulted in the verification of the AFEC program stakeholders' ability to meet participants' (i.e., community) expectations and needs for financial knowledge. This contrasts with the available literature findings that concluded that current available FSI programs failed to properly deliver financial literacy knowledge (GAO, 2014; Jorgensen, 2007; Letkiewicz, 2012; Lusardi, 2008; Lusardi & Mitchell, 2011; Lusardi et al., 2010; Lusardi & Tufano, 2009; Mandell, 2009; Xiao et al., 2014). The literature review disclosed that financial literacy was closely tied to financial capability (i.e., knowledge), which was required to effectively manage financial resources. The literature reflected that to improve

financial decision making across the populace, it was critical to engage individuals early and continuously. Thus, literature concerning financial education had shown that financial literacy programs could be effective in transferring knowledge, but the same literature highlighted that gaps exist between programs due to their lack of coordination, duplication of efforts, lack of clear program definition, lack of clear purpose, and poor communication. Also, the literature reports an active debate on whether financial education in practice can effectively bring about behavioral change (Chang, 2005; Community Action Partnership, 2011; Government Accountability Office, 2005, 2011a, 2011b, 2011c; Greenwood & Levin, 2007; Hung, Mihaly, & Yoong, 2010; Hung, Parker, & Yoong, 2009; Lusardi, Mitchell, & Curto, 2010; Lusardi & Tufano, 2009; Mandell & Klein, 2009; President's Advisory Council on Financial Literacy, 2008; Xiao et al., 2014).

### **Discussion of Findings and Conclusions in Relation to Research Question**

The research principal question asked: What are the shortcomings that have impacted the financial literacy programs and the ways by which they can be mitigated to close the financial literacy gap among Activity young adults and Activity civilian personnel?

The patterns derived from the study revealed that the more than 90% of the participants in the AFEC who had contact with the program were very impressed and satisfied with the variety of services. "I can't believe that these services are free and that my supervisor supported me attending the class" (CAJDP9). MYBF24 also remarked that the class and information provided by the AFEC helped her understand how to better manage her money. The group perceptions of the program were positive. The participants' consensus was that they wanted to learn more, and for this they preferred the meeting with counselor format. OELS313, RMVS2E, and JJS32 agreed that they will definitely take a few more courses

soon, and they even planned to meet with the counselor to get information regarding investments. When the subject of program shortcomings arose, the unanimous response was that the AFEC offered a good amount of programs and opportunities to learn. ISMS2H and OELS313 added, “More programs might be a problem. Too many could be too much.”

The general perception among participants was that the AFEC program “was there to help” (TPRS2G). From the data analysis and participants’ interview responses, it was apparent that the AFEC stakeholders had recognized, as noted by Lusardi, Mitchel, and Curto (2010), that understanding the factors that contribute to the lack of financial knowledge is the best way to design effective programs. The general perception of participants coupled with study findings provided evidence that the AFEC program’s systematic and holistic approach was opposite in relation to the federal financial literacy program’s approach. The available field literature findings proposed that current federal implementation and approaches are fragmented, inefficient, and highly inconsistent (GAO, 2012, 2014). Field literature recognizes aforementioned shortcomings and sums out that because exposure to current financial literacy programs produces little benefits, the programs must be collaborative, tailored, and targeted to satisfy the needs of specific groups to be effective (CFPB, 2014; Lusardi & Mitchell, 2014). In this case, the AFEC program indeed proved to be effective.

### **Discussion of Findings and Conclusions in Relation to Research Question 1**

What are the perceived inherent shortcomings that have impacted the current AFEC educational program? The findings related to this question confirmed that for this program, there are no relevant shortcomings. The quantitative data collected and analyzed was clear, and there was no perception of a financial literacy gap among the Activity participants. More than 88% of responses reflected an understanding and comfort with the AFEC financial

literacy program. This is not to say that there is no room for improvement. Participants' comments capture areas for improvement, such as AFEC field outreach could be expanded and curriculum can be improved by providing e-classes, but a frequency of 88% reflects no obvious financial literacy gap or major shortcomings. The idea that no relevant shortcomings were identified among the stakeholder participants can be aligned with Hung, Mihaly, and Yoong's (2010) assertion regarding the uncertainty of the effects of financial education and the impact on the behavior of young adults at the AFEC.

### **Implications of Thematic Findings of Interest in Subject**

The participants' recurring theme centered on their interest in learning and understanding financial tools and subjects. As stipulated in Chapter 2, the interest in learning and understanding financial tools and subjects can be supported by the viewpoints expressed by various theories (Chang, 2005; Hung, Parker, & Yoong, 2009; Lyons & Neelakantan, 2008; President's Advisory Council on Financial Literacy). The result of the data analysis reflected that the 11 participants were in consensus: they did not perceive that the AFEC program had any major shortcomings, but that there were areas that could be improved, such as expanding their services to the field offices. The program provided excellent support and access to financial information. The principal emerging themes revolved around how participants' interest focused on learning, value of the program, and interest in subject.

### **Implications of Thematic Findings of AFEC Value**

The emerging themes, learning, value of program, and interest and sub-themes represented the importance and value the participants placed on the AFEC program. Given the context of these emerging themes, they appear to resonate with the perspective shared by a myriad of authors (Dvorak & Hanley, 2010; Huston, 2010; Kozup & Hogarth, 2008;



Letkiewicz, 2012; Lusardi, Mitchel, & Curto, 2009; Sabri, 2011; Willis, 2008) as elaborated in Chapter 2. The program value is also enhanced by the fact that all program services are free and easily available through the organization's network.

### **Analysis Research Question 2**

To what extent is the federal financial-educational program effective in advancing the knowledge bases, attitudes, and behaviors of young adults at the Activity?

Overall, no negative comments were received when the subject of AFEC effectiveness surfaced. The 11 members of the group held the consensus that they were “very happy” (OELS313) with the AFEC program and impressed with the qualifications of their counselors. No specific theme emerged from Research Question 2. This is because the emergent themes from Research Questions 1 and 3 turned out to be in agreement with Questions 1 and 2. Perhaps Deming's (1994) theory of profound knowledge might help in explaining such perceived agreement of emerging themes in that the stakeholder participants' viewpoints reflect an holistic “appreciation of a system” that structured the advancement of their knowledge bases, attitudes, and behaviors a the AFEC.

### **Analysis of Research Question 3**

In what ways can the collaborative efforts of the federal financial-educational program's stakeholders and young adults better develop strategic improvement plans for the current curriculum of the AFEC?

For 10 of the participants, the response to the question asking which of the four formats they preferred or which one they found more helpful for learning purposes, the principal answer indicated that meeting with the counselor was the preferred option, with the presentation format a very close second. GASS2C, OELS313, and CJTV2 also mentioned

that they liked AFEC asking for their input in feedback forms. The group consensus was that this was a good way to provide input to work with the AFEC to improve programs.

Collaborative education initiatives are viewed as the most effective means to fulfill the stakeholders' financial literacy needs (CFPB, 2014)

### **Implications of Thematic Findings on Preferred Learning Format**

The participants continue to express their interest in learning and utilizing the AFEC offerings to do so. This is in disagreement with field literature, wherein it is viewed that theory anticipates that not everyone will invest in formal financial learning. Therefore, it cannot be expected that all program participants' behavior can be impacted by financial literacy program (Hastings et al., 2012; Lusardi & Mitchell, 2014). They also mentioned the excellent support of the organization's leadership in regard to making time available for them to attend courses and presentations. The research facilitator mentioned collaboration and the feedback form, but the participants did not see it as collaborating with the AFEC. Rather, the participants considered it as "help[ing]" (CJTV2) to keep the program current, which all of the study participants agreed to do. For this, it can only be deduced that participants see the word collaboration as being part of or belonging to the AFEC program. This, however, is not an issue, as all 11 participants did submit feedback forms and intended to continue taking advantage of the AFEC programs.

### **Contextual Summary of the Action Learning Reflection**

The CRAL is a learning and reflective approach that uses action from the learning and reflection of a problem to resolve complex problems (Skills for Care, 2014). The purpose of the CRAL is to improve human systems to benefit the people who depend on the system (Pedler, 2011). To accomplish this, the CRAL utilizes reflection as the tool to ask (i.e., learn)

and derive problem-solving solutions that take into account (i.e., reflect upon) organizational and personal dynamics (Harrison, 2012; Rigg & Trehan, 2003). This fits well with the utilization of action research and OBE. These research methods are utilized to discover new knowledge, identify action-oriented outcomes, increase understanding of the research subject, identify results, and provide a platform to execute a rigorous research methodology (Herr & Anderson, 2005; Schalock, 2001). The stakeholders, however, requested to defer the critical action learning to after the completion of the study. The stakeholders' main interest is in assessing the full study, followed by presenting the study results to their leadership.

### **Recommendations for Action**

*Recommendation 1:* Program managers and policymakers must partner with Activity members to eliminate any misconceptions concerning the program, increase delivery efficiencies, and ensure that the program continues to address community members' needs.

Based on the analysis, the participants demonstrated a keen interest in the program and manner in which the program delivers information and provides assistance to community members. By having participants serve as active partners and volunteers, the process of curriculum development and information sharing can be expanded at a minimal cost. With the assistance from the Activity volunteers, the program can stay current, increase efficiencies in delivering services, and remain focused on customers' needs.

*Recommendation 2:* Partner with other Activity organizations to better market services and distribute financial subject matter information.

Partnering with other organizations within the Activity allows operational efficiencies to be reached. These efficiencies can be used to improve and expand current educational

programs. Thus, partnering will provide a venue to expand program outreach to better served worldwide customers.

*Recommendation 3:* Incorporate financial literacy classes into the Activity annual mandatory training program.

The data reflected that all the participants interfaced or participated in one or more of the AFEC programs, but it also reflected that the participation in programs was not uniform. To reach a uniform approach to financial learning and to ensure that all Activity members fully understand financial subjects, at least two financial classes should be incorporated into the annual mandatory training program. This will ensure that all Activity members understand the importance of financial literacy toward their well-being and security.

*Recommendation 4:* Introduce a bi-annual OBE and action research requirement for assessing organization efficiency and effectiveness to measure the progress and health of the program. By incorporating a bi-annual requirement for an OBE and action research study, the organization can continue to assess progress and determine if changes have produced improvements in service delivery and fulfillment of customer needs. In summary, adoption of a bi-annual OBE and action research will be the best means by which the program can be evaluated to assess if the program meets its goals and objectives, if it made a difference, and if it is effective and efficient (Schalock, 2001).

### **Action Research Knowledge Production Deliverable**

The strategic action plan recommendations presented by the critical stakeholder participants (Table 7) were the end -result of an extensive collaborative action research process. The names of critical stakeholders and participants have been concealed for privacy purposes. The recommendations, if implemented at the local level, will provide a practical

strategy to advance knowledge distribution and access. This will help to improve the young adults' and general community's awareness of the program's benefits and create a positive impact on their well-being.

*Table 7. Strategic Action Plan for the Improvement of Collaboration for the Activity Financial Education Center.*

GOAL 1. Build Collaborative Partnership: Time Frame: 2014 and continuing			
1.1 Execute a systematic approach to improve collaboration with Activity providers and members.			
1.2 Develop participatory activities that promote and solidify collaborative environment with Activity members.			
Task/Action Step	Responsibilities	Target	Start/End Dates
1.1.1 Research opportunities to foment collaboration and partnership	Research facilitator and Activity critical stakeholders.	100%	04/30/2015 and continuing
1.1.2 Establish a critical stakeholder team that will investigate opportunities to develop and maintain collaborative environment.	General Activity population, Agency managers, and Agency policy makers.		8/8/2015 and continuing
1.2.1 Develop activities that promote and enhance collaborative environment.	Critical stakeholder team.	100%	Winter 2016 and continuing
1.2.2. Schedule Financial Educational public event for general Activity members.	Critical stakeholder team.		Winter 2016 and continuing
Goal 2. Expand Program Awareness: Time Frame: 2015-2018			
2.1 Promote utilization of communication tools to extend program coverage and participation.			
Task/Action Step	Responsibility	Target	Start/End Dates
2.1.1 Explore budgetary opportunities to develop communication tool.	Critical stakeholder team	100%	10/30/2016-10/30/2018
2.1.2 Utilize communication tool to expand program reach.	Critical stakeholder team	100%	11/30/2016-11/30/2018

The secondary result of this strategic action plan would be an increase in awareness by the general community due to the utilization of communication tools and public events. As awareness increases, enrollment and participation in AFEC programs should increase, which should benefit families of program participants and their communities. Further utilization of communication tools could also help increase global awareness that translates

into a general public interest in participating and lobbying for additional funding in support of FSI programs.

### **Limitations**

There were numerous limitations associated with this study; some were foreseen others were impossible to anticipate. The inherent or foreseen limitations concerned research facilitator biases, which could have impacted the group dynamics during focus groups, interviews, and data collection. The research facilitator conducted a personal self-assessment, which made the research facilitator self-aware of biases and the means by which to control them, keeping in mind that an impartial perspective had to prevail. The research facilitator solely performed data collection and tabulation, requiring attention to detail and monitoring the quality of documentation. Methods triangulation and literature proved to be outstanding tools to maintain the validity and quality of the data collection and analysis process. Other limitations included the specific age group and site, making the results not representative of the larger population, thus making study results difficult to generalize.

Another limitation that proved to be a larger hindrance was the geographic separation between the research site, the participants and the study location. At the time of the research, the study location was overseas, which was +13-hour time zone difference from the research site. The premise and assumption that using the Activity secured network for communication with participants would be flawless and easy proved to be incorrect. Participants were authorized to use work time to participate in the research, but their responses were usually short and to the point, or participants were slow to respond to questions.

This could be explained by the Activity dynamics, which are not conducive to conversations and the disclosure of information. Most of the training and qualities associated

with working in the Activity are to be concise and reserved; the “need-to-know” mentality keeps conversations short and to the point. Another unforeseen limitation was the Activity’s security policy and process concerning the handling of communications traffic. The Activity’s network was used to communicate with stakeholders and participants, so another level of complexity was added to the data collection, processing, and material availability. All traffic generated using the Activity network had to be reviewed and authorized for release by the security office. Fortunately, none of these limitations were unsurmountable, and most were handled as they surfaced.

### **Recommendations for Future Study**

There are multiple opportunities for future studies. This study was primarily concerned with the shortcomings and effectiveness of one program, the AFEC, and thus should be expanded to cover the behaviors of the individuals who utilized the AFEC services. This case study leveraged theories and the AR and OBE frameworks to assess AFEC shortcomings and young adults’ lack (i.e., gaps) in financial literacy. The study findings reflected that the AFEC provided the venue to increase financial knowledge, helping to close the knowledge gap. No major shortcomings or financial literacy gaps were found, so the research facilitator’s recommendation is that an extension of this study should be conducted to assess if financial knowledge and organizational employment and retention requirements equate to positive financial behavioral changes in young adults.

### **Conclusions**

This study makes several contributions to the existing field of knowledge and provides several suggestions that could bring actionable change to the AFEC program. The study’s finding supports the financial education and management theories. The themes that

emerged point to an AFEC program that satisfies the financial knowledge needs of young adults. The study also highlighted the participants' interest in participating in and taking advantage of AFEC program services.

The knowledge gained from participants' and stakeholders' participation in the research was critical to reaching the conclusions and solutions. This was a case study, which limits the ability to generalize, but the results of this study are still useful to a broader audience of professionals and research facilitators interested in finding ways to improve field knowledge and perceptions. The findings of this OBE AR case study present ways in which financial literacy program managers and participants can work together. They can do this to incorporate actions that drive changes that will keep the financial literacy programs current, increase outreach, and improve program capabilities, which will increase young adults' financial knowledge and encourage positive financial behavior. The findings of this study suggest that when managed in a holistic manner, private and government financial literacy programs can improve the welfare of young adults, as well as that of all citizens. It can also improve the understanding, awareness, financial knowledge, and most importantly, the community's well-being.



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