Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavioral Changes of Program Participants

by

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Abstract

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. This study identified intended changes in financial behaviors; changes in knowledge, and any effects of demographics on participant's perception of the *Reality Check* program. A total of 396 students in 7th through 12th grades participated in the study.

Data was collected from students in eight of nine regions in Alabama. The assessment instrument was partially modified from a Financial Literacy questionnaire developed by Danes et al. (1999) and Mandell (2008). The instrument was adapted by adding one financial behavior question and six knowledge questions. The inclusion of demographics, eight perception questions and one open-ended question was added to allow multiple responses.

The results of the assessments showed that the *Reality Check* program is effective and it is making an impact on students. Over three-fourths of the participants reported financial behavior changes. The frequency of all eight financial behavior practices increased whereas the number of students reporting "never" or almost never" decreased. Items participants reported practicing the most before and after the program included buying items needed first, then items wanted, setting money aside for future needs or wants, and saving money on a regular basis. Students reported a significant intent to change their financial behavior after the program, and the Cohen's d effect size (1.399) was large.

Eighty-one percent of participants received a passing score on the knowledge post-test after only 56% passed the pre-test. There was a significant change in participants' knowledge with a medium Cohen's d effect size (.767). For the effect of participants recommending the *Reality Check* program to other teens, significant differences were found when analyzing perception by race and by gender. As it relates to the effect of students feeling that the *Reality Check* program helped them to see the relationship between education and career options, significant differences were found when analyzing participant's perception by grade. Lastly, as it relates to the effect of the *Reality Check* program improving youth's financial management skills, significant differences were found when analyzing perception by home location.

Dedication

"So the last shall be first, and the first last: for many are called, but few chosen."

Matthew 20:16, KJV

To whom much is given, much is required." This degree is dedicated to my amazing husband and children whom I love dearly. To my father Roosevelt Ross Sr. and my belated mother, Marva Jean Ross, I am forever thankful for the morals and values they instilled in me. I am appreciative for the hard work ethic that was planted as a seed when I was just a child. Mom, God bless your soul and I wish you could be here to witness the history I am making for our family. Dad, God bless you for being alive and well. I pray that I have made you proud since you with only a six grade education and mom, a high school diploma successfully raised ten exceptional children. This degree, I dedicate to you and thank you for your guidance and the love you have given me. Thank you for the woman, mother, wife, and spiritual leader I am today.

Acknowledgements

Seek the Kingdom of God above all else, and live righteously, and he will give you everything you need.

Matthew 6:33 (NLT)

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I appreciate Dr. Gary Lemme and Dr. Paul Brown for supporting me through my work in all regions and through the process of completing this dissertation. I am forever grateful for you allowing me to collect data across the state of Alabama in support of this research. I wish to

thank Dr. Sam Fowler and Dr. Gaines Smith for having the vision to originate the Extension distance learning opportunities. Thanks also to Dr. Evelyn Crayton for challenging the Family and Consumer Science Team to return to school to further our education. Her encouragement and challenge in developing employees has benefitted not only me as an individual but many of my colleagues as well. It is my desire to continue to carry out the mission of Extension as I contribute to helping both youth and adults empower themselves and their communities.

I appreciate the cooperation of the cooperating school principals, teachers, and students for being a vital part of this study. Thanks to all wonderful Alabama Extension's REA's and County Executive Coordinators who served a role in helping to complete this research and for recommending various schools from their region for this research. Thanks to Ruth Gomez, Dr. Sylvia Craft, and Ferlisa Dotson for editing my dissertation and for being a beacon of light in times of distress.

It truly took a village to complete a mission of this scope. Above all things, I thank my husband Dwight for his love, everlasting support, and patience. As my better half, I share this degree freely with him. I appreciate all the love, and understanding from my children Alexia, Alizha, and E. Shamel. I also thank my oldest daughter, TeNesha for her encouragement. I pray that they will strive for higher heights in life and that I am not only a great mother but also an awesome role model. Also, thanks to my extended family, friends, and co-workers for your support.

I am forever indebted to my family and friends for all the prayers and the assistance they provided along this road that I did not have to travel alone. I truly appreciated them sharing their lives with the demands placed in my path for this degree. Thank you also to my pastors, Terry

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Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

Financial literacy among adults and youth is a major issue and has increased significantly during the last decade. Youth and adults in the United States have tremendously low levels of financial literacy (ACEC, 2001; Consumer Federation of America (CFA), 1990, 1991, 1993, 1998; Jump$tart Coalition 2004, 2006, 2008; Kotlikoff & Bernheim, 2001; McDowell, 2000). Research indicated how American adults and youth lack basic knowledge of personal finance in the late 1990's (Chen & Volpe, 1998, Volpe, Chen & Liu, 2006). Joo and Garman (1998) identified the cost of low financial literacy rates to be substantial for this society (Alhabeeb, 1999; Hayhoe, Leach, & Turner, 1999).

Financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (America Savings Education Council [ASEC], n.d. 2001; Martin & Oliva, 2001; O'Neill, 1992). Experts from some studies agreed that financial literacy has a strong connection with self-beneficial financial behavior (Avard, Manton, English, & Walker, 2005; Chen & Volpe, 1998; Hilgert, Hogarth, & Beverly, 2003; Mandalle & Klein, 2009; Markovich & DeVaney, 1997; Volpe, Chen, & Liu, 2006; Warwick & Mansfield, 2000). Making self-beneficial decisions regarding consumer financing can impose a negative impact on the economy during this time of uncertainty in this nation. Danes' (1994) study revealed that

failing to provide youth with rigorous understanding of personal finance may cause them to make poor financial choices and decisions in adulthood. It is necessary to teach youth about personal finances. However, a number of results from studies revealed issues about students' financial future and their ability to make informed financial decisions as adult citizens (Gartner & Todd, 2005; JumpStart Coalition for Personal Financial Literacy, 2007; Martin & Oliva, 2001; Nellie Mae, 2002; Schwab, 2006).

From learning how to set and obtain financial goals, paying for financial obligations, balancing a checkbook, preparing a budget, managing a credit card, understanding credit and taking on a loan, managing an allowance or saving money, financial literacy is a critical component to creating a knowledgeable consumer. Norvilitis et al. (2006) and Jones (2005) emphasized the need to train students on how to effectively manage their personal finances. Previous research suggested financial education should be left to the formal education system and all states should mandate public schools to include a financial curriculum (National Association of State Boards of Education, 2006; National Council on Economic Education, 2007; Tennyson & Nguyen, 2001; Tschache, 2009). For instance, Bernheim, Garrett, and Maki (2001) conducted a study that found high school financial curriculum mandates raised exposure to financial curricula. Students who were exposed to a financial curriculum had an increased familiarity with financial topics as adults. The study implied that after a mandate was implemented by a secondary school, there was a steady growth of interest and exposure to financial education.

A substantial number of teenagers learn about money management from their parents, which establishes the most effective way to improve youths' financial knowledge and offers a solid foundation to improve the financial literacy of future generations (Lucey & Giannangelo,

2006; Pinto et al., 2005). The need for financial education is continually rising as financial problems in many U. S. households increase (Brobeck, 2002). Financial problems are manifested all over the United States as observed in the increase of consumer debt, job loss, personal bankruptcies, burden of home ownership, low saving rates, rising medical cost, and divorce. There is a lack of knowledge and tools necessary to help individuals make educated decisions relating to their finances (Brobeck, 2002).

Poor spending, saving, and investment decisions may eventually lead to individuals using excessive credit, often times at outrageous rates just to make ends meet (Martin & Oliva, 2001). Working together to eliminate financial stress in the nation's households benefit the community in several ways such as fewer bankruptcy filings, increased affordability for parents to send their children to college, less stress related health problems, less divorces, and increase in standards of living (Yankelovich Partners, 2001). One and a half million families filed for personal bankruptcy in 2001 and four in ten Americans admit they live beyond their means primarily because of their misuse and misunderstanding of credit (Yankelovich Partners, 2001). More than a million Americans declare personal bankruptcy each year. Unfortunately, the fastest-growing group declaring bankruptcy is young adults ages 20-24 (Greenspan, 2002).

Clarke, Heaton, Israelsen, and Eggett, (2005) demonstrated that only twenty-five percent of Americans live within their financial means. Likewise, Vyce (2008) identified that there is a personal savings deficiency in America as most consumers borrow more money than they save. Since the Great Depression, personal saving rates for Americans is at its lowest point with evidence in the year of 2006 reflecting a negative savings rate (Sullivan et al., 2000; Vyce, 2008). Currently, personal saving rates have reached 4.2% as of November of 2013, compared to

4.5% the previous month and 5.9% in 2012. This is recorded as the lowest average since the long-term rate of 6.92% (Bureau of Economic Analysis, 2013).

Statement of Problem

In recent years, financial literacy has become a more prominent issue. Researchers have indicated that there is a general lack of financial knowledge among United States citizens of all ages (Chen & Volpe, 1998; Hilgert, Hogarth, & Beverly, 2003; Jump$tart, 2008; Lusardi & Mitchelle, 2007; Mandell & Klein, 2009; Markovich & DeVaney, 1997; Volpe, Chen, & Liu, 2006; Warwick & Mansfield, 2000). Being aware of issues related to personal finance is important for Americans' long-term financial security as the transition to defined contribution plans and the weakening of the United States Social Security system place greater responsibility on individuals' savings and financial decisions (Gruber & Wise 2002; Poterva, Rauh, Venti, & Wise, 2006). Solutions are being sought to solve the worldwide financial crisis, and financial literacy is assumed to be in greater demand for use to create financial literate individuals who lack financial skills to make sound financial decisions (Joo, 1998). In addition, increasing consumer financial literacy is a public policy objective to improve welfare through better decision making (U. S. House of Representatives, Financial Services Committee, 2009).

Financial education assessments only show whether individuals increase their savings after having been exposed to financial education programs (Lusardi, Mitchelle, & Curto, 2009). Unfortunately, this type of assessment is not enough to measure the effectiveness of financial education programs. The Alabama Cooperative Extension System (ACES) has served schools and community groups across the state of Alabama since 2005 with the *Reality Check* program. The *Reality Check* program is designed to show youth how to budget, write checks and record transactions; how to make wise spending decisions; how to manage a checking and savings account; and teach financial concepts and terms. However, this program has not been evaluated

on its effectiveness. Gaps exist in research investigating the effectiveness of many financial literacy programs for youth. In other words, it is difficult to evaluate the effectiveness of financial education among the young (Lusardi, Mitchelle, & Curto, 2009). Innovative ideas need to be discovered to assess "the impact of financial education of the young" (Lusardi, Mitchelle, & Curto, 2009, p. 358).

Non-profit and for-profit groups have been involved in efforts to teach financial literacy on a small scale in some churches, colleges, schools, community groups, banks, Cooperative Extension, the military and other organizations (Vitt, Anderson, Kent, Lyter, Siegenthaler, & Ward, 2000). Since there is potential for financial behavior changes to occur if one is taught financial education, researchers are interested in investigating the effectiveness of financial education (Charles, 2007; Hilgert, Hogarth, & Beverly, 2003; Hira,1993; Mandell, 2006a; Mandell, 2007a; National Endowment for Financial Education, 2004a; National Endowment for Financial Education, 2004b; Peng, Bartholomae, Fox, & Craverner, 2007; Sotak, Ferrari, Hudson, Cochran, & Bridgeman, 2008; Wenzler, & Chartier, 1999; Willis, 2008). Nevertheless, questions exist concerning the effectiveness of financial education in improving financial literacy (Lyons, Palmer, Jayaratne, & Scherpf, 2006).

Purpose of the Study

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. One of the Alabama Cooperative Extension System's goals is to increase financial literacy. In many cases, interactive financial education programs have a mixed history in relations to their impact on increasing knowledge and improving financial behavior of participants (Collins & O'Rourke, 2010; Haynes-Boardas, Kiss, & Yilmazar, 2008; Lyons, White, & Howard, 2008; Lyons, et al., 2003;

Martin, 2007). The study examined changes in financial behavior, financial knowledge, and participant's perception of the overall program after experiencing the *Reality Check* simulation. This study identified planned changes in financial behaviors; financial knowledge gained by participants, and effects of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of the *Reality Check* program.

In particular, this study answered the question of whether Alabama Extension's *Reality Check* financial education program is making an impact on youth by changing financial behaviors and improving financial knowledge. This study filled in some of the gaps found in financial literacy research to aid Alabama Cooperative Extension System and stakeholders interested in expanding the scope of the *Reality Check* and other personal finance programs offered in schools and to support legislation with the mandate of personal financial education in the state of Alabama. It can also help to improve program effectiveness, identify best practices, and lead to policy changes specifically for requiring all schools to offer financial education.

Today's youth are making financial mistakes by spending too much and saving too little Norvilitis et al. (2006). Struggling for economic prosperity is difficult, and it is especially hard for young people who have never learned about how to achieve financial security (Jump$tart Coalition for Personal Financial Literacy, 2009). There is a need to be concerned about youth financial knowledge based on the trends reported in various studies (Danes 1994, Duguay, 2006; Jones, 2005; Martin & Oliva, 2001; Narvilite, et al., 2006; O'Neil, 1992; Peng, Bartholomue, Fox, & Cravener, 2007). Financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (American Savings Education Council (ASEC), n.d., 2001; Martin & Oliva, 2001; O'Neill, 1992). As reported, one-third of high school seniors

already use a credit card and have credit card debt, and continue to acquire other types of debt which exposes the lack of understanding of the long-term consequences of these debts (Schwab, 2006; Jump$tart Coalition for Personal Financial Literacy, 2003; U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

Research Questions

The following questions were used in this study:

RQ1. What are the differences, if any, in students' self-reported financial behavior before and after participating in *Reality Check*?

RQ2. What are the differences, if any, among participants' financial knowledge before and after participating in *Reality Check*?

RQ3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

Significance of the Study

The intent of this study is to acquire results that will be used to determine the effectiveness of the Alabama Cooperative Extension Systems Youth *Reality Check* financial education program. This study will provide feedback on the *Reality Check* financial education program and whether or not it is making a difference in the lives of students initially as a short-term effect. All findings will be shared with Alabama Cooperative Extension System's administration and recommendations will be made as well. Furthermore, results from this study will assist Region Extension Agents in making appropriate changes to improve the *Reality Check* program.

Some studies show that an enormous amount of college students are acquiring substantial amounts of debt from student loans and credit cards (Hayhoe, et al., 2000; Kara, Kaynak, & Kucukemoroglu, 1994; Miller, 2002). The repercussions of a negative impact on their credit if

they fail to repay the loan could be devastating. Some students acquire loans to live an excessive lifestyle by purchasing things they want instead of only acquiring enough funds to pay for basic needs such as tuition, books, school supplies, meals, room and board, not realizing that student loans will have to be repaid one day with interest. Therefore, this study will also serve to guide the development of interventions that can help students learn basic financial skills necessary to avoid making decisions that lead them to debt or financial trouble in adulthood.

Limitations

Limitations of the study will include:

1. The population of this study was affected by parents' willingness to allow their child or children to participate in the study.
2. The population of this study was affected by educators' willingness to be involved and assist with data collection for the study.
3. Some data were collected using a self-report method. Self-reported information cannot be guaranteed factual which limited generalizability.
4. Another limitation of this study was social desirability. As with all self-reported information, participants might respond in ways that signify common patterns and that might not be an accurate account of their actual behaviors. In some cases, respondents are likely to knowingly or unknowingly overstate their behavioral change after participating in a program. This type of action can occur indirectly if respondents make the assumption that the researcher is looking for a certain response.

   Finally, as with any survey collecting self-reported financial variables, these variables may contain some amount of measurement error. Respondents may inflate behaviors they perceive to be positive and deflate behaviors they perceive to be negative. Some people

are hesitant to provide any financial information so they may skip questions or provide inaccurate responses.

5. Unanticipated situations limited the sample size. Due to several planned fieldtrips that some of the teachers were not aware of, the original estimated number of students did not participate in the study in several schools. One school was excluded from the study due to a three to four month gap in data collection which could have possibly affected the results.
6. Participants had similar educational levels and were of similar age. Therefore, results cannot be generalized to other individuals of different educational levels and age other than middle and high school students.

Assumptions

The following assumptions were made:

1. The researcher spent time to make sure all participants understood how to use the materials.
2. Students who participated in *Reality Check* completed all parts of the program.
3. Students answered all survey questions honestly and consistently.
4. Students who participate in *Reality Check* become more financial literate than those who do not participate.

Definitions of Terms

The following terms are used throughout this document due to some terms that are unique to this field or can be used in multiple ways. These terms are defined in this section for clarity.

1. **Behavior change** refers to eliminating an undesirable behavior (paying off debt), or developing a desirable behavior (saving money). Behavior change includes both components

simultaneously (Xiao, O'Neill, Prochaska, Kerbel, Brennan, & Bristow, 2001).

2. **Financial Behavior** refers to practices that should be conducted to be a cost effective consumer by searching for alternatives when making spending decisions.

3**. Financial education** includes "any program that addresses the knowledge, attitude, or behavior of an individual towards financial topics and concepts" (Fox et. al., 2003, p. 195, also cited by Bateson, 2009).

4. **Financial knowledge** refers to the understanding of key financial terms and concepts needed to function daily in American society (Bowen, 2002).

5. **Financial literacy** is the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security (National Standards in K–12 Personal Finance Education, 2007, p. 5).

6. **Personal finance education** refers to "the study of income and its determinants, money management and budgeting, savings and investing, and credit and debit" (Tennyson & Nguyen, 2001. p. 243).

7. **Personal financial literacy** "refers to the principles and methods that individuals use to achieve their financial goals" (Maryland State Department of Education, 2010). It also refers to the ability to read, analyze, manage and communicate about the personal financial conditions that affect material well-being (Cude et al., 2006; also cited by Vitt et al., 2000).

8. **Practice Adoption** refers to any movement towards behavior change.

9. **Reality Check Simulation** is design to introduce participants to the realities of being financially responsible by learning the importance of budgeting, prioritizing spending decisions, and saving money (Loose, 1998).

10. **Simulation** is the act or process of pretending (Collins English Dictionary, 2009). Simulations are thought to facilitate development of knowledge, proficiency, and confidence and are thought to be superior to lecture methods for teaching about complex situations and choosing among alternatives (Oh, 2002). Simulations are used in training and organizational development (Kriz, 2003; Wenzler & Chartier, 1999) and are being used more frequently in the business enterprise (Goosen et al., 2001).

Organization of the Study

This section focuses on a brief summary of Chapter 1 and what is to come in the remaining chapters. Chapter 1 introduced this study, presented the problem to be addressed, the purpose of the study, research questions, limitations, and assumptions. Chapter 2 of the dissertation provides a review of relevant literature that includes a discussion about financial literacy, Alabama Cooperative Extension overview, history of *Reality Check*, need for financial education, financial literacy act, state mandates, effectiveness of personal finance education, approaches to teaching financial education, personal financial literacy standards for youth and adults, youth financial education and behavior, parents and family and financial literacy, evaluating financial literacy, financial literacy education programs and the summary of literature. A discussion of the methods is located in Chapter 3 which includes the population, participants and sample; characteristics of participants, behavior measures, instrumentation, data collection and procedures; and data analysis. The findings of the study are presented in Chapter 4. Lastly, Chapter 5 contains a summary of the study, conclusions, implications and recommendations for further practice and research.

Chapter 2

Review of Literature

Introduction

In today's world, the ability to manage personal finances has become increasingly important. Youth must understand the problems they face in the marketplace, specifically with the condition of the economy today. This is a pressing issue because youth will one day become adults and be faced with making such decisions as deciding on savings and borrowing for a down payment on a house, a child's education, or a car loan. Some studies have shown that Americans have inadequate knowledge of personal finances (Chen & Volpe, 1998; KPMG, 1995; PSRA, 1996, 1997; Vanguard Group/Money Magazine, 1997; Volpe, Chen, & Liu, 2006). To prevent youth from becoming victims of financial ignorance, educating them about personal finance is a critical concern. Unfortunately, youth fail to make appropriate financial decisions because they have not received a sound personal finance education (Hira, 1993; O'Neill, 1993). To address this pressing issue, this dissertation describes research undertaken to explore the effectiveness of Alabama Cooperative Extension System's *Reality Check* youth financial education program.

Purpose of the Study

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. One of the Alabama Cooperative Extension System's goals is to increase financial literacy. In many cases, interactive financial education programs have a mixed history in relations to their impact on increasing knowledge and improving financial behavior of participants. The study examined changes in

financial behavior, financial knowledge, and participant's perception of the overall program after experiencing the Reality Check simulation. This study identified planned changes in financial behaviors; financial knowledge gained by participants, and effects of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of the *Reality Check* program.

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reported, one-third of high school seniors already use a credit card and have credit card debt, and continues to acquire other types of debt which exposes the lack of understanding of the long-term consequences of these debts (Jump$tart Coalition for Personal Financial Literacy, 2003; U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

Research Questions

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RQ3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

Financial Literacy

Financial literacy is a broad topic. Many researchers over the years have developed their own definitions or meanings for financial literacy, financial knowledge, or financial education. However, financial literacy, financial knowledge and financial education are used interchangeably in our society. For the purpose of this study, "financial literacy is defined as the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security" (National Standards in K–12 Personal Finance Education, 2007, p. 5).

Financial literacy has been defined in various studies. There are three financial literacy definitions that are most prominent. First, Fox, Bartholomae, and Lee (2005) defined financial literacy as one's understanding and knowledge of financial concepts. Second, Thaden and

Rookey (2005) defined financial literacy as the understanding of financial facts, concepts, principles, and technological tools that are fundamental to making sound financial decisions. Third, Vitt and Anderson (2001) defined financial literacy as the ability to read, analyze, manage, and communicate about the personal financial conditions affecting material well-being. This includes the ability to discern financial choices, discuss money and financial issues without discomfort, plan for the future, and respond completely to life events affecting everyday financial decisions, including various events happening in the general economy. As identified in some studies, an increase in personal debt level and decrease in personal saving rates has been used as evidence of the lack of financial literacy (Kinzie, 2007; MacDonald, 2008; Young Americans Center for Financial Education, 2007). Based on this information, there is an indication that people are spending more than they save.

Financial literacy is generally a tool used to address particular catastrophes in how youth and young adults use or mismanage money. Financial literacy programs for adults and youth attempt to provide all participants with a minimum basic knowledge of money management skills relating to banking, saving, finance, insurance, and credit. Financial literacy influences financial knowledge, attitudes, and behaviors of people (Ajzen & Fishbein, 1980; Grable & Joo 1997; Varcoe & Wright, 1991). For instance, a study conducted by Collins and O'Rouke (2010) indicated that financial education increases knowledge more than it promotes behavior change. Peng and colleagues (Peng et al., 2007) found a significant relationship between participation in college level personal finance classes and higher investment knowledge. Another study found that short financial seminars had a positive impact on both financial knowledge and attitudes in relations to both installment and credit card debt (Fox et al., 2005).

Alabama Cooperative Extension Overview

Alabama Cooperative Extension System

In 1872 Auburn University was the first land-grant institution established in Alabama. Later in 1891, Alabama A&M was added as a land-grant institution. These institutions were created by Congress granting them land for the creation of institutions for higher learning in agricultural and mechanical arts. The Smith-Lever Act marked a new beginning for the history of Extension in 1914 (Alabama Cooperative Extension System Highlights, 2004).

The Alabama Cooperative Extension System (ACES) is the outreach organization branch of two land-grant universities, Auburn University (1862) and Alabama A&M Universities (1890) whose primary function is to provide educational outreach to people in the community (Alabama Cooperative Extension System Highlights, 2004). Tuskegee University is also a cooperating partner, however, only Alabama A&M and Auburn Universities were united as one system under the ruling of Judge Harold Murphy in 1995 because of a federal court case filed in 1981 known as Knight vs. Alabama (Decatur Daily, 2006). The Alabama Cooperative Extension System operates in all of Alabama's 67 counties in addition to nine Urban Centers and six Extension, and Research Centers where more than 900 faculty, professional educators, and staff members are employed (ACES Annual Report, 2004; Henderson, 2001). This current year of 2014 marks the centennial of Alabama Cooperative Extension.

Alabama Cooperative Extension System's Mission

Since its inception, the Alabama Cooperative Extension System has had a mission to "take the university to the people." This is accomplished in collaboration with a host of partners and stakeholders from both the private and public sector, as well as financial support from county, state, and federal governments (Alabama Cooperative Extension System Highlights,

2004, p. 2). The mission of ACES is achieved by providing research-based educational programs in the areas of Agriculture, Economic and Community Development, Urban Affairs and New Nontraditional Programs, Family and Consumer Science, 4-H and Youth Development, and Forestry, Wildlife, and Natural Resources (ACES: Meeting Our Mission, 2012).

Alabama Cooperative Extension System's 4-H and Youth Development Program

The 4-H and Youth Development Program assist youth in developing life skills. These life skills are learned through a variety of hands-on, as well as minds on experiences are designed to foster personal development in four areas - the head, heart, hands, and health (ACES Annual Report, 2004).

The 4-H program is offered to students as young as 5 years old through the Clover Bud Program and to students up to 19 years old through 4-H. It is one of the only programs offered to students at no cost. With an increase of interest in the program, volunteers are recruited and trained to deliver the program to a large number of youth across the State of Alabama. 4-H programs emphasize character education, leadership development, citizenship, health and development of personal interests and talents. The program also provides students with opportunities to participate in activities that challenge them to develop their skills while teaching them valuable life skills such as summer camp, leadership retreats, volunteer service and participation in national events. The Alabama Cooperative Extension System's "ACES Meeting Our Mission Fact Sheet" (2012) also states that:

> Alabama Cooperative Extension System's 4-H and Youth Development Program reaches more than 92,000 youth, ages 5–18 which serves as Alabama's largest youth education organization. It provides hands-on teaching in agriculture and animal sciences, natural resources and the environment, science and technology, citizenship, and health. It also develops and nurtures life, leadership, and communication skills, including the character and values needed to be productive citizens. In addition, it provides education and activities for youth with parents in the military through Operation Military Kids (p.1).

History of ACES's *Reality Check* Program

The *Reality Check* program was created by Dave Loose in Nashville, Tennessee and was adopted by the Alabama Cooperative Extension System in 2005. In Alabama, this is a signature youth financial education program implemented by the Alabama Cooperative Extension System. The program has been conducted in schools and community groups across the state. It is designed to teach financial concepts, increase financial knowledge and influence changes in financial behavior. The *Reality Check* program is offered on a regular basis to the general population of middle and high school age students across the state to help increase financial literacy.

The Need for Financial Education

Due to lack of financial education, youth, young adults, and adults alike make poor financial decisions (Brobeck, 2002; Mandell & Klein, 2009; Volpe, Chen & Liu, 2006). Various concerns for the levels of financial literacy in society as a whole has grown significantly in recent years and will become even more important in the future (Fox, Bartholomae & Lee, 2005). Prior studies of high school students consistently found that they are not receiving an adequate education in personal financial fundamentals and have poor knowledge (Bakken, 1967; Braunstein & Welch, 2002; CFA/AMEX, 1991; HSR, 1993; Jump$tart, 2008; Langrehr, 1979; NAEP, 1979).

The Foundation for Credit Counseling (2009) report revealed the following:

> Forty-one percent of U.S. adults, or more than 92 million people living in America, gave themselves a grade of C, D, or F on their knowledge of personal finance, suggesting there is considerable room for improvement. Showing no improvement since 2007, less than half adults (42%) keep close track on their spending. Nearly 16 million adults or seven percent don't know how much they spend on food, housing and entertainment, and do not monitor their overall spending. One-third of adults (32%), or 72 million people, reported that they have no savings and only 23% are now saving more than they did a year ago

> because of the current economic climate. Twenty–six percent, or more than 58 million adults, admit to not paying all of their bills on time. (p. 3)

Many American adults have inadequate knowledge of personal finances and fail to make correct decisions because they lack sound education in personal finance (Helman, Greenwald, VanDerhei, & Copeland, 2007; Vanguard Group, 1997). Although most teenagers may not earn income in the form of a paycheck, they may earn an allowance and need to know how to manage money to practice good financial management.

Mundy (2008) believed "students are the consumers of the future" and this is the major reason why it is important to educate young people. In addition, "financial education can help provide students with the building blocks which they will need to make sound financial decisions throughout their lives" (p.59). If all the states in the U. S. mandate the implementation of financial education programs, there is a greater chance that consumers can improve how they make financial decisions.

Another study conducted by Alexander, Jones, and Nigro (1998) examined responses from a survey of 2,000 randomly selected mutual fund investors who purchased shares from six different distribution channels. In this study, it was found that educational training still needs to be offered in order to improve the financial literacy of mutual fund investors. Investors can improve their knowledge of the expenses and risks associated with mutual funds. Mutual fund investors vary in their level of financial knowledge; however, financial literacy needs to be improved, even for those who participate in investments.

The use or misuse of financial knowledge can affect an entire national economy (Mandell, 2009). Clearly, more financial education is necessary if the financial behaviors of young adults are to have a positive impact on theeconomy. According to the Federal Reserve Division of Consumer and Community Affairs' 2002 paper called *Financial Literacy: An*

Overview of Practice, Research, and Policy (Braunstein & Welch (2002) indicated the following:

> Consumers lack a working knowledge of financial concepts and do not have the tools they need to make decisions that are beneficial to their economic well-being. This paper also noted that evidence concerning the benefits of financial training is consistent with conventional wisdom-education can result in more informed consumers who make better financial decisions. (p. 445- 446)

Financial literacy plays an important role in preventing individuals from becoming involved with fraudulent financial transactions or engaging in financially destructive behavior (Comptroller of the Currency, 2011). Personal bankruptcy filings more than doubled between 1990 and 2000 (American Bankruptcy Institute, 2001). More than 1,759,503 United States households were affected by bankruptcies, an increase of 400% over the last two decades (U. S. Courts Bankruptcy Filings, 2006).

Beverly and Burkhalter (2005) found that young people's knowledge of finance is lacking and many do not use optimal financial skills. Based on this research, children and young adults need more financial education in order to make more informed financial decisions as adults (Mandell, 2009). Another example is the Schwab's (2007) study. This survey revealed that 80% of teens between the ages of 13 to 18 years old responded that it was crucial for them have a lot of money during their lifetime. Eighty-six percent want and expect their parents to stop supporting them before age twenty-five. Sixty-three percent say they are knowledgeable about money management, including budgeting, saving and investing. Sixty-two percent of American teens, ages 13-18 believe they are prepared to deal with the adult financial world after high school. Forty-one percent of students consider themselves knowledgeable about how to budget money. Thirty-four percent believe they know how to pay bills. Twenty-six percent think they know how credit card interest and fees work. Twenty-four percent know whether a check

cashing service is good to use. Only fourteen percent know how income taxes work. Lastly, 13% know what a 401(k) plan is and how it works.

On the other hand, another example is the Jump$tart Coalition's (2008) study which surveyed 6,856 high school 12th graders in 40 states. The study revealed that 32% of high school seniors use credit cards and 53% use debit cards. Fifty-two percent of high school seniors did not know that paying off a credit card more slowly will result in higher finance charges. This study also found that 83% of high school seniors did not know that stocks are likely to yield higher returns than savings bonds, saving accounts and checking accounts over the next 18 years. There has never been a period within the last 18 years where this has been invalid.

In addition, the Jump$tart Coalition's (2008) survey disclosed that 60% of high school seniors did not know that they could lose their health insurance if their parents became unemployed. Sixty-four percent did not know that a house financed with a fixed-rate mortgage is a good hedge against a sudden increase in inflation. Consequently, 52% did not know they could check their credit report for free once a year through an online credit report.

There is a need for financial education in schools. Previous research conducted by the Networks Financial Institute of Indiana State University (2007) revealed that the majority of teachers (80%) think it is important to teach financial literacy in U. S. classrooms. Only about half of k-12 teachers, however, say they do teach some form of Financial Literacy to their students. The deficiency of time, state curriculum requirements, and demand are the top three challenges to teaching financial literacy topics, according to responses from teachers. Unfortunately, according to teachers, financial literacy skills are deficient among young people in the U. S., and many believe their students need to be exposed to the basic financial skills that

they will need to function in society. This research indicates some of the reasons why we need financial education for youth.

On the contrary, many college students lack the knowledge needed to manage their money. Unfortunately, they are also generating enormous amounts of debt, particularly with credit cards and student loans while attending school (Borden, Lee, Serido & Collins, 2008; Markovich & DeVaney, 1997; Roberts & Jones, 2001). In most cases, college students do not have a clue that their current debt load could negatively impact their future when it comes to making major purchases (Maekovich & DeVaney, 1997). Consequently, some college students get trapped into compulsive buying that is also known as “chronic, repetitive purchasing” (O’Guinn & Faber, 1989, p. 155), which becomes a primary response to negative events or feelings.

Exclusively, uncontrollable buying is often linked to debt, which comes from the misuse of money and credit cards in general. For instances, Roberts and Jones (2000) revealed that compulsive spenders were more prone to spend money to reflect power and feel important. Many college age students have abused the use of credit cards because of over spending and purchasing unnecessary items while attending a college or university (Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000).

When it comes to young adults, credit cards are easily accessible to college students and are promoted assertively towards students in college (Coulton, 1999; Mannix, 1999; Schembari, 2000). Ritzer (1995) verifies that students are being raised in a credit card society that leads them into debt and bankruptcy with very little knowledge of a variety of consequences. In many cases, to acquire credit cards, students did not have to prove if they were employed or had means to repay. However, too many students fall into the credit card debt trap because they are unaware of

what they are getting into. Approximately 70% of undergraduate students possess credit cards (Ludlum et al., 2012); compared to 66% of Midwest students who have at least one credit card (Robb & Sharpe, 2009).

In 2011, a study conducted by Schwab (2011), revealed that 39% of 18-year-olds reported knowing how to manage a credit card. This is a decline from 64% in 2007. The percentage of 18-year-olds that know how credit card interest and fees work also fell from 43% in 2007 to 32% in 2011 and the proportion with checking accounts fell by 24% from 75% to 51% (Schwab, 2011). Therefore, based on data revealed from various studies above, there is a need not only for financial education for youth and young adults but also a need to know if it leads to good financial behaviors.

Financial Literacy Act

Personal finance is recognized as a basic education course that is needed by all students. This alludes to the fact that financial literacy still remains a vital issue for the world's economy and financial development efforts. In 2003, the Financial Literacy and Education Improvement Act established a commission known as the Financial Literacy and Education Commission (FLEC). The Financial Literacy and Education Improvement Act was one of the first educational acts that helped establish the importance of financial literacy. This act was a part of the Fair and Accurate Credit Transactions (FACT) Act of 2003. The Fair and Accurate Credit Transactions (FACT) Act of 2003 was established to improve financial literacy and education in the United States. The Secretary of the Treasury was named as the head of the Financial Literacy and Education Commission. This commission mandated 19 other federal agencies and bureaus that organized the promotion of financial literacy between public and private sectors in the U.S. (United States Department of the Treasury, 2002).

Many strategies were developed using the Fair and Accurate Transactions (FACT) Act, one of which involved the collaboration of the Treasury Department and Midwestern University to develop a money-based math curriculum called Money Math: Lessons for Life, in 2001. In this curriculum, real-world personal financial scenarios are used to teach math concepts and basic finance to students in grades seven through nine (Financial Literacy and Education Commission, 2006, p. 108). This endeavor shows both education and government working hand in hand to provide training and guidance to help students learn basic financial concepts.

In 2006, FLEC developed its first national strategy, Taking Ownership of the Future: The National Strategy for Financial Literacy, which called to action a symposium to identify research priorities for promoting personal and family financial security. The initiative was followed in 2011 by Promoting Financial Success in the United States: The National Strategy for Financial Literacy. The commission also developed a national financial education web site (MyMoney.gov) and hotline (U.S. Department of the Treasury, 2012).

In 2007, Jump$tart Coalition determined standards classifying financial literacy subjects into six standards. There are six major standards of financial literacy for youth that include financial responsibility and decision making; income and careers; planning and money management; credit and debt; risk management and insurance; and saving and investing. On the other hand, the five components of financial literacy for adults include money management, credit, debt management, risk management, and investing and retirement planning. Due to the nature of youth not being as mature as adults, their financial literacy components vary to some extent. Because youth have to learn how to make appropriate decision as they grow and develop, the Jump$tart Coalition for Personal Financial Literacy adopted the components mentioned

above in order to appeal to youth so they could become financially literate (Jump$tart Coalition for Personal Financial Literacy, 2007).

In 2008, The President's Advisory Council on Financial Literacy was formed. Representatives from business, the clergy, and the non-profit sector including Jump$tart and several of its partners collaborated to work on improving financial literacy among Americans. The Council set out to "better educate people from all walks of life about matters pertaining to their finances and their future" (President Bush, 2008, p. 1). In 2008, the Council highlighted its accomplishments which included the launch of the first-ever National Financial Literacy Challenge. This was a personal finance exam taken by 46,000 high school students from all across the United States in May 2008 (Literacy, 2008, p. 2). Next, the council endorsed the creation of the Workplace Honor Roll program. This program acknowledged effective workplace financial education programs. Their last accomplishment for 2008 was the collaboration developed with the Financial Literacy Education Commission to coordinate federal efforts. In addition, there were 15 recommendations from the Council. Recommendation one stood out the most which stated: "The United States Congress or state legislatures should mandate financial education in all schools for students grades Kindergarten through 12" (Literacy, 2008, p. 3). At that time it was not certain what role the Council would play in President Obama's administration. The Obama Administration has continued to enforce the mandates that were already in place during the Bush Administration.

State Mandates

Previously, mandates in some states have called for the adoption of consumer education policies. A study conducted by Tennyson and Nguyen (2001) showed that high school financial curriculum mandates brought attention to financial education. When these students became

adults, they had an increased familiarity with financial matters. This was an indication that after a mandate is adopted by a secondary school, there is a steady growth of interest and exposure to financial education (Bernheim, Garrett, & Maki, 2001). This study also indicated that there is a definite advantage to exposing young adults to knowledge and skills involved in financial education.

In 2014, the majority of U.S. states mandated that students receive some exposure to consumer education in middle school or high school. Consumer education is fairly broadly conceived, and generally includes economics, consumer decision making, and consumer law as well as personal finance (Bernheim, Garrett, & Maki, 1997). State curriculum requirements vary considerably in both accuracy and focus. For example, some states require that students receive consumer education or economics education but not education in personal finance. Additionally, some state mandates require specific course content and either student testing, while others only set general educational guidelines or objectives (Clow, 1999; Financial Literacy Legislation, 2007; McDermott, 2011). Therefore, it is important to incorporate more financial education into the curriculum of consumer education.

Actions have been taken at the state and national levels to promote financial literacy on a long-term basis. However, more states are mandating and making personal finance education a top priority in public schools. Personal finance is recognized as a basic education course that is needed for all students. A mandate was made by the National Association of State Boards of Education (2006) and reiterated by the recent report of the President's Council on Financial Education (2008). The President's Council's first recommendation was to "mandate financial education in all schools for students in grades Kindergarten through 12th grade" (p. 3). Utah, Missouri, and Tennessee were the first three states to require at least one semester devoted to

personal financial education as a component of the high school graduation requirement. Another seventeen states require instruction in personal finance to be integrated into other subject matters (Jump$tart Coalition, 2008). As of 2011, a total of four U. S. states require at least one semester devoted to personal finance; twenty states require instruction in personal finance to be incorporated into other subject matters; and twenty-four states have no requirement although personal finance may be taught effectively (Jump$tart Coalition, 2011). Alabama's mandate took effect in 2013, requiring all high school students to have at least 20 hours of financial education before graduation.

Jump$tart is a national coalition of organizations dedicated to improving the financial literacy of pre-kindergarten through college-age youth by providing advocacy, research, standards and educational resources (Jump$tart Coalition for Personal Financial Literacy, 2003). Jump$tart also strives to prepare youth for life-long successful financial decision-making. Mandell (2006) Jump$tart Coalition Personal Financial Literacy National surveys have shown consistently that high school students who play a stock market game are considerably more financially knowledgeable than students not exposed to the stock market game or any other type of financial literacy game or real-life simulation. This suggests that students learn better when a course or real-life simulation is interactive, relevant and exciting. In addition, students who participate in such a financial course or activity stand a better chance of performing better if they are motivated to understand why personal financial management will play a vital role in their future (Mandell & Klein, 2007).

The Jump$tart findings prove the necessity for personal finance to be offered to all students from a policy perspective. An example of the support of this comes from a paper titled Against Financial Literacy Education (Willis, 2008) that cites the Jump$tart Coalition findings to

conclude that “the search for effective financial literacy education should be replaced by a search for policies more conducive to good consumer financial outcomes” (p. 284).

Most of the personal financial education mandated requirements are basically at the high school level in participating states (National Association of State Boards of Education, 2006). This is vital because public high schools are being funded on the federal and state government level which may be the last opportunity to mandate educational courses, especially personal finance for students. Since personal finance is offered as an option in some schools but not as a required course, fewer students may opt to take the class although some will and many may not. One reason for an immediate push for a personal finance education course is realizing that upon leaving high school, students approach adulthood and will have to face making financial decisions which could be detrimental if not properly educated on how to manage their finances.

Utah, Missouri, and Tennessee were the first three states to require at least one semester devoted to personal financial education as a component of the high school graduation requirement. In the year of 2009, the state of Virginia incorporated the same requirements for its students. Another seventeen states require instructions in personal finance to be integrated into other subject matters (Jump$tart Coalition, 2008).

As of 2011, Missouri, Tennessee, Utah, and Virginia require at least one semester devoted to personal finance. States that require instruction in personal finance be incorporated into other subject areas increased from 17 to 20. These states include Arizona, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, South Carolina, South Dakota, Texas and West Virginia. There are a total of twenty-six other states that have no requirement although personal finance may be taught effectively (Jump$tart Coalition, 2011).

Effectiveness of Personal Finance Education

As it relates to financial education for youth in high school, mixed findings have been reported. Many states have adopted personal financial literacy programs for delivery to high school students on topics such as money management, as well as credit and debt management for several decades (Jump$tart Coalition, 2008). However, the effectiveness of these programs have been examined and collectively shown that personal finance courses have a varied impact on students' financial knowledge and behavior. An example of this would be the amount of formal consumer education that does not significantly relate to seven core consumer skills, including financial management (Moschis & Churchill, 1978; Courchane & Zorn, 2005).

Researcher has identified the impact of the financial education program, Real Money, Real World. According to a follow-up study conducted by Bateson (2009), more than 80% of participants reported changes to the extent that they now repay money owed on time, set aside money for the future, and compare prices. Seventy-five percent of students implied they now think more carefully about spending money. Students reported substantial changes in their financial behavior after the program Real Money, Real World (Bateson, 2009).

In the same study above, only two percent of students reported making no changes in their spending (Bateson, 2009). As it relates to savings behavior, over 75% of the students reported that they now understand the importance of saving money. Additionally, about 67% of participants indicated they now save more money than they did before the Real Money, Real World program. Over 33% reported changes in all savings practice categories. However, only four percent of students indicted they made no changes in their savings (Bateson, 2009). Overall, findings from this study provided verification that Real Money, Real World presents financial management in a way that is easy to learn and attractive to youth. Students learn the advantages

of adopting good financial practices and are actually doing so after the program. The results of this study reveal how follow-up evaluation can be conducted to investigate behavioral changes and barriers to adopting recommended practices (Bateson, 2009).

Another effective personal finance education program used nationally is the NEFE's High School Financial Planning Program (HSFPP). The National Education Financial Endowment (NEFE) High School Financial Planning Program is offered online free to teachers and other educators. They offer a basic money management curriculum that allows educators to teach teens what they need in order to begin using financial skills they learn from the program. This program measured the impact of teen's financial knowledge, behavior, and self-efficacy in both 1998 and 2004 which is most recent compared to Danes' other studies (Danes, 2004; Danes et al., 1999). Immediately after conducting the (HSFPP) program, results showed significant improvement in students' financial knowledge, behavior, and confidence. When the same program was evaluated three months later, there was a continuation of positive impact changes in spending and saving habits (Danes & Haberman, 2004). However, there is no way to tell if or how long a financial education program impact lasts (Fox & Bartholomae, 2008).

Even though interactive, identifiable, and targeted programs tend to be more effective, "existing research on the effectiveness of financial education programs is incomplete and unconvincing" (Hathaway & Khatiwada, 2008, p. 16), due to the lack of program evaluations. One major problem is that state nor national standards have not been set for program evaluation, making it a challenge to measure the impact and effectiveness of programs, which means we cannot determine if our education attempts are truly successful at achieving their goal (Hathaway & Khatiwada, 2008).

Consequently, the current problem that needs to be addressed is that "we just don't know if the programs are not working or if we don't understand whether they are working because they are not being evaluated properly" (Hathaway & Khatiwada, 2008, p. 19). However, program evaluations could "help to identify best practices, improve program effectiveness, and lead to policies that help consumers make better decisions" (Hathaway & Khatiwada, 2008 p. 16).

Approaches to Teaching Financial Education

In terms of teaching financial education, there can be challenges when delivering information as significant and profound to students (Montgomery, Brown, & Deery, 1997). Engaging students is vital in the learning process for youth especially when teaching financial education. However, it has been recommended that when working with youth, they may acquire a better understanding through participating in active learning such as real-life simulation, experiential activities, and role playing (Aldrich, 2005; Chen, Wu, Li, & Chan, 2010; O'Neill, 2008; Salen, 2013; Suiter & Meszaros, 2005). Participation in some form of real-life simulation or scenarios can make abstract concepts more visible to students.

Kolb's (1984) experiential learning theory provides a holistic perspective that combines experience, perception, cognition, and behavior. Moreover, this model is helpful in improving the transfer of knowledge from scenario to scenario (Gardner & Korth, 1997). Experimental learning is unique.

As seen in Figure (1), learning experience includes four activities: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984). In relation to 4-H programming, "experiential learning takes place when a youth is involved in an activity, looks back at it critically, determines what was useful or important to remember, and uses this information to perform another activity" (USDA 4-H National Headquarters Fact Sheet,

2011(p. 1). Another way of viewing this is in order to complete the cycle; learners must take part in the experiences, reflect on them from various viewpoints or perspectives, form ideals that incorporate what they observed with theory, and utilize the model to direct future activities (Kolb, 1984).

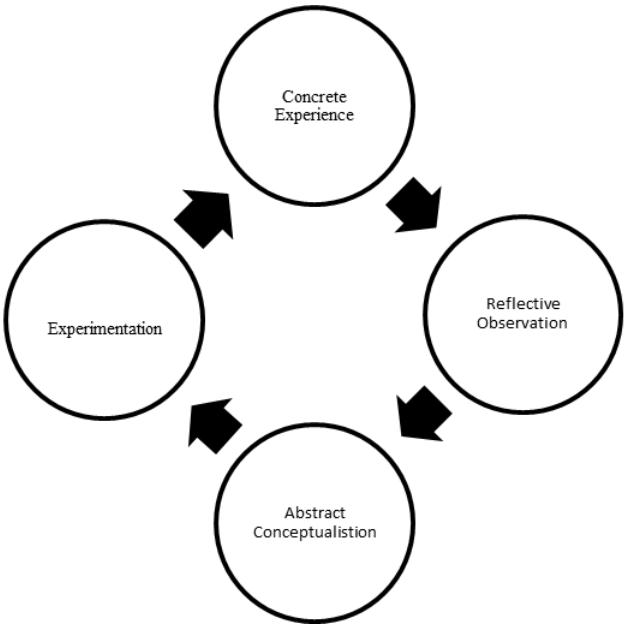

Figure 1. Kolb's (1984) Experimental Learning Cycle

Similar to Kolb's experiential learning model, experimental learning is also fostered in the National 4-H Youth Development programs. Although this model is used in 4-H, it can also be used when delivering youth financial literacy programs to teach new topics and life skills. The expression "learn by doing" is widely used in 4-H to teach youth different skills and to help them understand various concepts.

In 4-H programs, the experiential learning model has five-steps that guide the process by turning activities into fun learning experiences (USDA 4-H National Headquarter Fact Sheet, 2011). In addition, the 4-H Visual Arts series from CCS Curriculum combines two of the five steps into a three-step model that included Do, Reflect, and Apply (see Figure 2). First, in the" Do" process students experience the program and have an opportunity to engage in the activity.

Secondly, in order to reflect on an activity, participants share and process the information learned. Thirdly, when applying skills and techniques learned in the activity, youth can also generalize (USDA 4-H National Headquarter Fact Sheet, 2011). As a rule of thumb, it is vital to get students to reflect, generalize, and apply what they learned. Learning can be improved by using simulation and modeling to deepen understanding of a subject matter from multiple perspectives (Gordin & Pea, 1995); however, simulation has limits and restrictions (Schiavenato, 2009). Through leaning by doing, "students can acquire knowledge in a more interactive way instead of reading a passage to merely memorize a definition or a formula while learning an activity," (Schiavenato, 2009, p. 3). Therefore, if the experiences are going to be maximized to show the value of an activity, reflections and debriefing are a required (Lewis & Williams, 1994).

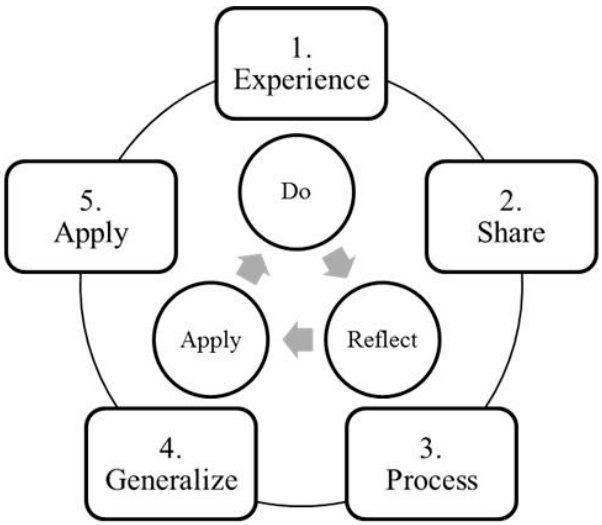

Figure 2. This 4-H experimental learning model depicts the 5 steps that guide the process of turning activities into fun learning experiences (4-H National Headquarter Fact Sheet, 2011).

Personal Financial Literacy National Standards

Financial literacy includes financial education, financial expectations, as well as financial satisfaction (Hira & Loibl, 2005). It influences financial knowledge, attitudes, and behaviors of

people (Ajzen & Fishbein, 1980; Grable & Joo, 1997; Varcoe & Wright, 1991). Moreover, increased financial knowledge influences students' attitudes positively toward business in general and their ability to be wise consumers in society (Collins & Rouke, 2010; Fox et al., 2005; Langrehr, 1979; Peng et al., 2007).

National Standards for Personal Financial Literacy for Adults

There are five components of financial literacy for adults. These components are money management, credit, debt management, risk management, and investing and retirement planning. If adults can master these five components, this becomes an indication that they are financially literate. It is recommended that adult financial literacy education programs be designed to appeal to multiple adult learning styles and modalities, and utilize any educational resources found to be effective (Institute for Financial Literacy, 2007). This implies that there is more than one way to teach and deliver financial literacy programs to help adults master what they need to learn about finances.

Each component has overall competency and standard benchmarks that adults have to master in order to be completely financial literate. The first component of financial literacy for an adult is *money management* (Institute for Financial Literacy, 2007). It has an overall competency that requires adults to "recognize how cash flow management and net worth analysis can be used as tools to achieve financial goals" (p. 2). For instance, achieving an understanding of *cash flow management* (Standard I) can help adults to identify the components of a budget, create personalized budget documents, and revise their budgets to reflect current cash-flow. Understanding *personal net worth* (Standard II) on the other hand, can help adults to identify the components of a personal net worth statement, create personalized net worth statements, and understand that their net worth will fluctuate as the values of their assets and liabilities change.

The final component in this category is the understanding *financial goal setting* (Standard III). The focus of this standard is for adults to be able to differentiate between short and long term financial goals, prioritize their financial goals, construct a realistic financial goal action plan, and revise their financial goals as life circumstances change. If adults are able to master these three standards involving money management, they are presumed to be one step closer to becoming financially literate (Institute for Financial Literacy, 2007).

The second component of financial literacy is *credit* (Institute for Financial Literacy, 2007). This component has an overall competency that requires adults to learn "how and where to obtain credit, as well as understanding the implication of using and misusing credit" (p. 3). *Obtaining credit* is the first standard that requires adults to learn how to differentiate among the types of credit, understand which types of credit are better suited for particular purposes than other types, identify types of financial institutions where credit can be obtained, and understand how the credit application process works. The second standard for credit is the *utilization of credit.* Adults can achieve this benchmark standard by comprehending the legal implication of using credit. They also have to understand what a credit report is, how to dispute errors in credit reports, and what consumer's rights are regarding credit reports. Understanding what credit scores mean and the significance of their use in modern life is also vital. The third standard is being able to recognize what precautions can be taken to prevent identity theft and fraud, and what to do if victimized. If adults are able to master these three standards relating to credit, they are presumed to be two steps closer to becoming financially literate (Institute for Financial Literacy, 2007).

The third component of financial literacy is *debt management* (Institute for Financial Literacy, 2007). This component's overall competency requires adults to "recognize how using

debt can be a tool in asset building" (p. 4). The first standard of debt management is *debt measurement.* This standard requires adults to know what tools are available to them to measure their debt load, determine what their appropriate debt load is, and understand the difference between good debt and bad debt. *Debt resolution* is the second standard of debt management. When adults can recognize the warning signs of excessive consumer debt, understand options available to assist with excessive debt loads, and evaluate which professionals can assist in dealing with excessive debt issues they will have mastered these two standards. Also, if adults are able to master both of these standards, they are presumed to be three steps closer to becoming financially literate (Institute for Financial Literacy, 2007).

The fourth component of financial literacy is *risk management* (Institute for Financial Literacy, 2007). The overall competency of this component requires adults to "use appropriate risk management strategies to protect assets and quality of life" (p. 5). *Insurance* is the first standard and if mastered, it will help adults to differentiate among the types of insurance products, understand their insurance needs, and comprehend the implications of being insured or uninsured. If mastered by adults, learning about standard two, r*isk management,* can help adults to evaluate the effectiveness of risk management tools in protecting against financial loss, assess their risk tolerance level, and use risk tolerance levels in developing risk management strategies. If adults are able to master these two standards of risk management, they are presumed to be four steps closer to becoming financially literate (Institute for Financial Literacy, 2007).

The fifth and final component of financial literacy for adults is *investing and retirement planning* (Institute for Financial Literacy, 2007). This final component of the overall competency requires adults to "implement investment and retirement strategies to achieve financial goals" (p. 6). The first standard in this component is *investing and retirement planning*. In this standard,

adults can differentiate among the types of investment vehicles, identify the types of financial institutions where investment products can be purchased, understand the differences between retirement and nonretirement, as well as qualified and non-qualified investments, and recognize the importance of planning for retirement. Lastly, the i*nvesting and retirement strategy* is the second and final standard in investing and retirement planning. Under the guidelines of this standard, adults can evaluate the risks and rewards associated with investment options, understand the role risk tolerance plays when choosing investment vehicles, comprehend the legal implications of investing, and assess their overall financial situation in determining retirement needs. If adults are able to master these two standards, they are presumed to be five steps closer to becoming financially literate. As a result, if all of the components are achieved by adults, they will be officially considered to be financially literate (Institute for Financial Literacy, 2007).

Chairman of the Board of Governors of the Federal Reserve System, Ben Bernanke stated that improving financial education is vital to the future of our economy and pronounced that "financially literate consumers make the financial marketplace work better, and they are better-informed citizens" (Bernanke, 2006, p. 1). Much attention has been drawn to young adults as well as adults as it relates to the state of their financial situation and the need for more to be done to increase financial literacy. Current college and university graduates contribute to one fragment of the population that need to understand that financial decisions today may have a positive or negative effect on their financial security in the future. With the responsibility of having to pay for education through the use of grants, loans, personal savings, scholarships, full or part time jobs, or parental contributions, students are left with the burden of making up the difference when there are not enough funds to meet their financial obligations. One study by the National

Center for Educational Statistics (2006) revealed that students who receive financial aid to assist in paying for their education were on average offered only 49 percent of the cost of their education in a combination of federal, state, and institutional grant aid. Student loans, consumer loans, and credit cards usually make up the remainder of the cost. In addition to students paying for their education, they are usually over taken with appealing credit card offers at nominal introductory rates that increase if balances are not paid in full or on time (Kara, Kaynak, & Kucukemoroglu, 1994; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Wisconsin Policy Research Institute, 2003).

Executive Director, Stephen Brobeck of Consumer Federation of America stated in his testimony before the Committee of Banking, Housing, and Urban Affairs of the United States Senate that "the financial vulnerability of low- and moderate-income households has increased simply because of the dramatic expansion of the availability of credit," (Brobeck, 2002, p. 1). The financial literacy crisis that is emerging in the United States is counterproductive to the financial direction of the economy that places more responsibility on individuals to manage their own finances (Athens, 2004; O'Connell, 2008). More training is required for the population to be able to effectively navigate the system because of a more diverse and complex economic environment. However, financial literacy can help keep individuals from making uneducated decisions but it cannot stop them from making unscrupulous decisions (Ferguson, 2002).

Concerning financial literacy studies, the first study was conducted by Danes and Hira to examine the money management knowledge of university students (Danes & Hira, 1987). Danes and Hira (1987) found that students were knowledgeable regarding the general use of credit cards as a form of identification and the additional costs associated with late payments.

On the contrary, a study by Chen and Volpe (1998) focused directly on the financial

literacy of university students. Unlike the Financial Literacy and Education Act, Chen and Volpe (1998) did not specify a financial literacy definition. However, they outlined that their survey instrument would evaluate, a) savings and borrowing, b) insurance, c) investments, and d) general financial knowledge. Volpe, Chen, and Pavlicko (1996) and Chen and Volpe (1998) found that students who majored in business performed better on financial literacy surveys than non-business majors. It has not been tested why business majors perform better on financial literacy surveys but it has been assumed that business majors have been exposed to more financial matters and they are more interested in reading and learning financial related materials (Volpe, Chen, & Pavlicko, 1996; Chen & Volpe, 1998).

Jorgensen and Savla (2010) provided insight into the state of financial literacy among a sample of college students. In this study, parents significantly influenced their children's financial knowledge, attitude, and behavior. As a negative indicator, college students continued to score low in financial knowledge, attitude, and behavior. Although students' level of knowledge increased by classes rank, college students may lack the necessary knowledge to handle financial responsibility in and after college. It was also indicated that without an appropriate understanding of their personal finances, college students may be more likely to mismanage their finances now and in the future. Also, students who participated in college-level financial education classes were found to have higher levels of investment knowledge than students who did not participate in a financial education class (Fox et al., 2005; Peng, Bartholomue, Fox, & Cravener, 2007).

Since adults are more mature than teens, it is natural to assume that adults have more knowledge about financial issues. The Consumer Federation of America, TRW credit reporting agency known as Experian, and the Educational Testing Service both collaborated by conducting

a study in 1990 on adult financial literacy. The TRW acronym does not represent anything other than the name of the credit-reporting agency. This study revealed that participants' responses from thirteen different consumer subject areas indicated there were large gaps in the consumer and financial knowledge of adults. For instance, less than 70% of the questions were answered correctly by respondents in the following areas: auto insurance (53%), credit (56%), life insurance (46%) and checking/savings (54%) (Consumer Federation of America, 1993).

Financial literacy has also been important in the workplace. If employees have financial problems, it could be a result of them not being able to focus on work. A great number of employers have been providing financial education to assist their employees in managing their retirement plan (Bernheim & Garrett, 2003; Employee Benefits Research Institute, 2004). A few studies found that workplace financial education was effective in increasing saving behaviors (Bernheim & Garrett, 1996; Bernheim & Garrett, 2003; Clark & d'Ambrosio, 2003; Clark & Shieber, 1998; Employee Benefit Research Institute, 2004). Cooperative Extension agencies across the United States provide an enormous amount of financial literacy educational programs for the general public (Vitt et al., 2000). The programs presented on average involve basic financial management that cover such topics as budgeting, credit and debt management, investing, savings, estate planning, and retirement planning. Currently, limited research has been conducted on the impact of Extension workplace financial programs on individual's personal finances (Fletcher, Beebout, & Mendenhall, 1997).

Other studies have found that workplace financial education resulted in increased financial literacy, increased retirement, and improvement of financial management (Bayer, Bernheim & Scholz, 1996; Bernheim & Garrett, 2003; Clark & Shieber, 1998; Clark & d'Ambrosio, 2003; Employee Benefits Research Institute, 2004). For example, Bernheim &

Garrett (2003) found that employer-based financial education stimulates saving, both in general and for retirement. In addition, Clark and Shieber (1998) found that participation in financial education seminars changed individuals' retirement goals and retirement savings behaviors in a positive way.

Another example involved a study conducted by Kim (2007) that found significant changes in financial management behavior, financial well-being and perceived knowledge as a result of workplace financial literacy programs. Participants in this study improved their personal finances in other major areas such as credit management, general financial planning and cash management in addition to their financial well-being and financial knowledge.

National Standards Personal Finance Education for Youth

Youth financial knowledge and behavior are important because habits learned early create a foundation for future financial security or mishaps (American Savings Education Council (ASEC), n.d., 2001; Martin & Oliva, 2001; O'Neill, 1992) especially with the use credit of cards. One-third of high school seniors already use a credit card and have credit card debt. They continue to acquire other types of debt which expose the lack of understanding of long-term consequences due to these debts (Jump$tart Coalition for Personal Financial Literacy, 2003; U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

In order to obtain competence in financial literacy, youth must understand the problems they will face in the marketplace. They must have training to distinguish the best way to help them not to become victims of financial ignorance. As stated in the *Journal of Consumer Affairs,* "…… young people are leaving school without the basic skills to manage their personal financial affairs, putting them at a high risk for not being able to plan responsibly for their financial

future" (Howlett, Kees, & Kemp, 2006, p. 240). This ignorance can be strengthened through financial education.

As a way to help youth become financially literate, high school teachers have been mandated in several states to provide students with education and skills on topics related to money management decisions. The lack of attention on financial literacy in public high schools has an impact on prospective consumers in the area of sound financial decisions. Actions have been taken at the state and national levels to promote financial literacy on a long-term basis. However, more states are mandating and making personal finance education a top priority in public schools.

The impact of financial literacy has reached such record proportions that the Credit Union National Association has made financial education a part of their mission. It is encouraging for them to know that both the private and public sector are making financial education a priority (National Credit Union Association, 2002).

According to Hogarth (2006), the consistent themes running through various definitions of financial literacy include the following:

> (a) being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; (b) understanding the basic concepts underlying the management of money and assets (e.g., the time value of money in investments and the pooling of risk in insurance); and (c) using that knowledge and understanding to plan, implement, and evaluate financial decisions. (p. 3)

The six major components of financial literacy for youth are as follows: financial responsibility and decision making; income and careers; planning and money management; credit and debt; risk management and insurance; and saving and investing. Each component focuses on an overall competency derived from the Jump$tart Coalition's definition of financial literacy. The six components, overall competency, and benchmark standards help youth to

become financially literate (National Standards in K–12 Personal Finance Education, 2007). After the completion of the six major components, youth graduating from a high school in U. S. should be able to take individual responsibility for their personal economic wellbeing.

According to the National Standards in K-12 Personal Finance Education (2007), a financial literate youth should know how to: find, evaluate, and apply financial information; set financial goals and plan to achieve them; develop income-earning potential and the ability to save; use financial services effectively; meet financial obligations; and build and protect wealth (Lusardi, Mitchell & Vilsa, 2010).

As previously mentioned, due to the nature of youth not being as mature as adults, their financial literacy components vary to some extent. The first component of financial literacy for youth is *financial responsibility and decision making* (National Standards in K–12 Personal Finance Education, 2007). The overall competency for this component expects youth to "apply reliable information and systematic decision making to personal financial decisions" (p. 4). The standard benchmarks for youth are for them to take responsibility for personal financial decisions, find and evaluate financial information from a variety of sources, summarize major consumer protection laws, make financial decisions by systematically considering alternatives and consequences develop communication strategies for discussing financial issues and control personal information (National Standards in K–12 Personal Finance Education, 2007).

The second component of financial literacy for youth is *income and careers* (National Standards in K–12 Personal Finance Education, 2007).The overall competency for this component requires youth to be able to "use a career plan to develop personal income potential" (p. 4).When youth can explore career options, identify sources of personal income, and describe factors affecting take home pay, this will be an indication that they met the expected standard

benchmarks (National Standards in K–12 Personal Finance Education, 2007).

The third youth component is *planning and money management* (National Standards in K–12 Personal Finance Education, 2007). If youth are able to "organize their personal finances and use a budget to manage cash flow" (p. 4), it will be evident that they achieved the overall competency for this component. If these standard benchmarks are met, youth will be able to develop a plan for spending and saving, develop a system for keeping and using financial records, describe a personal financial plan, apply consumer skills to purchase decisions, consider charitable giving, develop a personal financial plan, and examine the purpose and importance of a will (National Standards in K–12 Personal Finance Education, 2007).

Credit and debt is the fourth youth component (National Standards in K–12 Personal Finance Education). The overall competency for this component indicated that youth are expected to "maintain creditworthiness, borrow at favorable terms, and manage debt" (p. 4). The standard benchmark for this component can be met if youth can identify the cost and benefits of various types of credit, explain the purpose of a credit record and identify borrowers' credit report rights, describe ways to avoid or correct debt problems and summarize major consumer credit laws (National Standards in K–12 Personal Finance Education, 2007).

The fifth known financial literacy youth component is *risk management and insurance* (National Standards in K–12 Personal Finance Education, 2007). Youth successfully complete this competency when they can "use appropriate and cost-effective risk management strategies" (p. 4). On the other hand, youth accomplish this competency when they can master the standard benchmarks by being able to identify common types of risk and basic risk management methods, explain the purpose and importance of property and liability insurance protection, and explain the purpose and importance of health, disability, and life insurance protection (National

Standards in K–12 Personal Finance Education, 2007).

The sixth and final financial literacy youth component is *saving and investing* (National Standards in K–12 Personal Finance Education, 2007). For proficiency in this component, youth need to "master implementing a diversified investment strategy that is compatible with personal goals" (p. 4). This standards benchmark involves youth being able to discuss how saving contributes to financial well-being, explain how investing builds wealth and helps meet financial goals, evaluate investment alternatives, describe how to buy and sell investments, explain how taxes affect the rate of return on investments, and investigate how agencies that regulate financial markets protect investors (National Standards in K–12 Personal Finance Education, 2007).

The Consumer Federation of America joined with American Express Travel Related Services Company, Inc. to sponsor a nationwide test of high school students' consumer knowledge (Consumer Federation of America, 1991). In this study a total of 428 high school seniors were surveyed in shopping malls at eight major cities across the country. The results concluded that high school seniors were not prepared to make several essential purchasing decisions they will need to make as young adults after they graduate from high school. Students scored low in the areas of knowledge of credit, checking and savings accounts, and auto insurance. Students were also considered less knowledgeable about topics relating to calculating annual percentage rate (APR) of loan or interest payments, shopping for auto insurance and the degree that rates vary, the important of credit rating, and how to correct errors on credit reports (Consumer Federation of America, 1991).

In 1997-98, an evaluation of the National Endowment for Financial Education (NEFE), High School Financial Planning Program looked at the short-term effects of financial education in schools. After participating in the NEFE program, 30% of students reported that they began a

savings program. Fifteen percent increased their savings and 40% said they had gained skills for tracking spending. In addition, they were more informed about the cost of credit, more knowledgeable about investments, and more secure with their money management skills. The present NEFE High School Financial Planning Program was formally known as the High School Financial Planning Program (HSDFPP). Huddleston et al., (1999) used a five-tiered approach to evaluate the impact of the High School Financial Planning Program (HSDFPP) Curriculum on high school students' financial behavior. In this study, it was found that personal financial programs had a positive impact on students' financial literacy, behavior and self-efficacy levels.

Several studies have been conducted on financial literacy for youth. JumpStart Coalition for Personal Financial Literacy conducted its first nationwide survey of 12th grade students in 1997-98 to determine the ability of young people to survive in today's complex economy. Results revealed that only 10.2% of the 1,532 high school seniors were able to answer at least three quarters of the basic, age-relevant questions correctly with an average grade of 57.3% which is considered a failing score (Jump$tart Coalition for Personal Financial Literacy, 1997-98). The nationwide second survey was conducted in 2000 and administered to 723 high school seniors. The results were worse than those of the first survey. The overall test scores decreased by 5.4% which fell from 57.3% to 51.9% (Jump$tart Coalition for Personal Financial Literacy, 2000). In 2002's study the third nationwide survey was administered to 4,024 twelfth graders and the results continued to decrease from 51.9% to 50.2%. Of this decline, the greatest decreases were found in money management and saving relate questions (Jump$tart Coalition for Personal Financial Literacy, 2002).

Unlike the results mentioned from the Jump$tart Coalition for Personal Financial Literacy surveys from 1997-98, 2000, and 2002 a slight change took place in 2004. Results from

the 2004 national survey of high school students tested the financial literacy of 4,074 twelfth graders. This group of students scored an average of 52.3% which was a little over a two percent increase from 2002 (Jump$tart Coalition for Personal Financial Literacy, 2004). However, the scores from the previous two studies were four percentage points below the baseline study of 1997-98, which was still considered failing. On the other hand, results from a 2006 survey showed that the scores increased by one tenth of a percent, while the 2008 study results average score was 48.3%, the worst out of the 1997-98, 2000, 2002, 2004, and 2006 studies (Jump$tart Coalition for Personal Financial Literacy, 2006, 2008). The 2008 survey was a matching survey for both 12th graders and full-time college students. Results from the college students were much more positive. The average score was 62.2%, a 15% percent increase above the 48.3% scores of seniors in 2008's study (Jump$tart Coalition for Personal Financial Literacy, 2008).

Other studies revealed that youth who attended high school in a state that required students to complete a consumer education course before graduation were found to have higher saving rates and higher net worth several years after the completion of the course (Bernheim, Garrett, & Maki, 2001). Likewise, those who attended employer-provided financial education workshops were found to make better financial decisions, have increased confidence when making investment decisions, and have better control over their credit use (Garman, Kim, Kratzer, Brunson, & Joo, 1998; Hira & Loibl, 2005).

Previous research discovered financial education should be left to the formal education system and all states should mandate public schools to include a financial curriculum (Tschache, 2009). Researchers at Stanford University conducted a study that found that high school financial curriculum mandates have raised exposure to financial curricula. For students exposed to a financial curriculum, when they became adults they had an increased familiarity with financial

topics. The study implied that after a mandate is implemented by a secondary school, there was a steady growth of interest and exposure to financial education (Bernheim, Garrett, & Maki, 2001).

Therefore, in the area of financial education, the skills and knowledge students need can make or break families financially. Topics that are needed to create understanding in the development of personal economics are credit, real estate ownership, retirement planning, taxation and investing (Shaker, 2001). However, topics are not limited to those just mentioned. There are many issues that financial educators face when trying to figure what key factors need to be addressed. In reviewing professional issues for financial educators, the following concepts are used: economics, finance, consumer behavior, science, history, sociology, and family science. As educators, skills are developed in various financial topics ranging from budgeting to retirement plans (Schuchardt et al., 2007). Those concepts along with many others in financial education can be topics that can add to the knowledge and skills of high school students, college students, and most importantly the consumer.

Youth Financial Education and Behavior

Researchers are trying to answer the question, "Does financial education leads to better financial decisions if people were financial literate?" In this case, theory suggests that "financial education leads to greater financial knowledge, greater financial knowledge then leads to better financial behavior, and better financial behavior ultimately leads to improved consumer outcomes" (Hathaway & Khatiwada, 2008, p. 1)."Financial knowledge is positively linked to consumer financial behavior" (Hathaway & Khatiwada, 2008, p. 3). However, this raises concerns for the financial future of today's youth, especially those from low income families.

Norvilitis et al. (2006) and Jones (2005) emphasized the need to train students how to effectively manage their personal finances. This includes anything from learning how to manage

an allowance or paycheck to setting up a budget, balancing a checkbook, understanding credit, saving money, paying for financial obligations, or setting and obtaining financial goals. Financial literacy is a critical component to creating a knowledgeable consumer.

In the 1990s, organizations began to realize that financial education was necessary for youth in this generation in order for them to make better consumer decisions in their future. To determine the financial literacy level of high school seniors, the Jump$tart Coalition for Personal Financial Literacy has been conducting surveys since 1997. The average score of high school seniors in 2005 was (52%), a failing score on most United States grading scales. It was also found that only 16% of the respondents had taken an entire course in personal finance in high school (Duguay, 2006). This survey provides evidence that students have not had the training or the knowledge to make wise decisions about their economic future or their financial well-being.

In 2010, there was a study conducted on *Financial Capabilities of College Students from State with Varying Financial Education Policies* (Gutter, Copur, & Garrison, 2010). Results from this study indicated that students from states where a financial education course was required had the highest report of financial knowledge and were more likely to display positive financial behaviors and dispositions. Compared to other studies, young adults were more likely to save, pay off credit cards in full each month and not be compulsive buyers, be willing to take average financial risk, as well as less likely to max out credit cards, and make late credit card payments (Gutter, Copur, & Garrison, 2010).

Other findings by Gutter, Copur and Garrison (2010) indicate that state policy plays a major role in college student's financial behavior when controlling for variables such as demographics, financial education and financial social learning opportunities to name a few. Although this may vary state by state, only states that require students to take a course that

related to budgeting, saving, and credit usage play a significant part in helping students to gain financial knowledge and improve financial behaviors. This study also showed there was a correlation between financial education and financial knowledge, and one between financial knowledge and financial behavior. States can have a greater impact in financial education by lobbying for course requirements rather than just state standards (Gutter, Copur, & Garrison, 2010).

The current economic recession has brought worldwide attention to the threat of having a financially illiterate society. The 2011 Survey conducted by the National Council for Economic Education demonstrate that while there has clearly been progress since the first Survey in 1998, over the year of 2000, the trend has been declining and regressing in the wrong direction. Other study results indicated that illiteracy is a widespread burden on financial basics (ASEC, 2001; Braunstein &Welch, 2002; JumpStart Coaliation 2008). However, the 2011 survey can possibly show an opportunity for a much needed conservation to take place between those who recognize that this knowledge is essential for youth and young adults alike, and the decision makers in power that can influence change.

Various findings from the 2011 survey disclosed an increase in 21states in 2009 to 22 states in 2011 that required students to take an economics course as a high school graduation requirement (National Council for Economic Education, 2011). There was a decrease in 2011 in 19 states in 2009 to 16 states that required the testing of student knowledge in economics. However, although there has been no improvement seen in the area of personal finance, only 13 states still required students to take a personal finance course (or personal finance included in an economics course) as a high school graduation requirement. Also, a total of 36 states now

required that personal finance content standards be implemented which is an increase of 2 states since 2009 (National Council for Economic Education, 2011).

In relation to young adults, previous research suggested that the level of available resources has an impact on financial behavior, as consumers with less available resources may fail to meet all of their financial obligations, or lack the means to save (Aizcorbe, Kennickell, & Moore, 2003; Hilgert et al., 2003). Research focusing on college students indicated that minority students were more likely to display risky financial behavior (Lyons, 2004). Therefore, financial education is vital for youth and young adults if there is a chance to improve their behavior as it relates to managing their finances.

Another study disclosed that college seniors who graduated in 2010 owed an average of $25,250 in student loan debt, up five percent from 2009 (Project on Student Debt, 2010). This study basically focused on the average debt levels for the 50 states and District of Columbia for more than 1,000 U.S. colleges and universities. The unemployment rate for young college graduates rose from over eight percent in 2009 to 9.1% in 2010, the highest annual rate on record (Bureau of Labor Statistics, 2010-2011). However, the unemployment rate for young college graduates continues to be much lower than that for young high school graduates. The average unemployment rate for 20 to 24 year-olds with only a high school education was 20.4% in 2010 which is another indication to be concerned about youth financial education and their behavior.

Experts from several studies agree that financial literacy has a strong connection with self-beneficial financial behavior (Hilgert, Hogarth, & Beverly, 2003). This alludes to the fact that financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (America Savings Education Council [ASEC], n.d. 2001;

Martin & Oliva, 2001; O'Neill, 1992). However, making self-beneficial decisions regarding consumer financing can impose a negative impact on the economy.

Hilgert, Hogarth, and Beverly (2003) revealed that financial literacy has been positively related to self-beneficial financial behavior. An example of this would be their development of a Financial Practices Index that was centered on self-benefiting behavior in cash-flow management, credit management, saving and investment practices. Results of the Financial Practices Index were compared with scores of a financial literacy quiz which revealed a positive relation between financial literacy scores and Financial Practice Index scores. Therefore, results from this study suggested that financial knowledge is related to self-beneficial financial practices.

However, a study conducted by Van Rooij, Lusardi, and Alessie (2007) involving Dutch adults found that those with low financial literacy were more likely than others to depend on family and friends for financial advice and are less likely to invest in stocks. As it relates to youth in a study conducted by Mandell (2006) using the Jump$tart survey, it was discovered that high school seniors who never bounced a check or who balanced a checkbook had considerably higher financial literacy scores than others with checking accounts.

Parents and Family and Financial Literacy

A study conducted by Marshall and Magruder (1960) related the development of children's financial knowledge and practices to parent practices. Marshall and Magruder studied over 500 rural Kentucky children and their parents to consider the behavior of a child and the parent's financial practices. This study revealed that coin and purchasing power scores increased with age, as did children's experience with money. The study also observed changes in a child's

financial knowledge and responsibilities with age and related findings to financial practices exercised by parents.

A study conducted by Danes (1994) revealed that failing to provide youth with rigorous understanding of personal finance may cause them to make bad financial choices and decisions in adulthood. It is a necessary to teach youth about personal finances. Solutions are being sought to solve the worldwide financial crisis, and financial literacy is assumed to be in greater demand to create financial literate individuals who lack financial skills to make sound financial decisions (Joo, 1998).

Danes' (1994) study also noted that parents play an essential role in transferring knowledge of the realistic and sensitive aspects of money. Clarke, Heaton, Israelsen, and Eggett (2005) argued that a small amount of research exists pertaining to the passing of information from parent to child about adult roles and responsibilities, particularly about finances. Based on previous research, it is apparent that more research is essential to see how parents effectively communicate financial messages to their children (Pinto et al., 2005).

Hilgert and Hogarth (2003) conducted a national survey involving 1,004 consumers across the United States that found that people primarily learned their financial practices and habits from their family or through personal experience. Mandell (2004) reported the same results that showed students are learning financial practices from their parents, and the parents have learned their financial practices from their parents (Hilgert & Hogarth, 2003). This sends a message that it is essential for parents to be financially literate in order to teach their children positive financial behavior and habits.

A substantial number of teenagers learn about money management from their parents, establishing the most effective way to improve adults' financial knowledge that offers a solid

foundation to improve the financial literacy of future generations (Lucey & Giannangelo, 2006). The need for financial literacy is on the rise as the debt rates continue to increase in many U. S. households. Some financial issues are revealed all over the United States as observed in the increase of job loss, family size, and low saving rates. With these two issues along, it is more difficult to transfer wealth. Consequently, children from low-income families will have a lesser chance of benefiting from any financial benefits gained by their parents due to the current decline in finances (Banks & Tanner, 1999; Scanion & Page-Adams, 2001; Sherraden, 2002).

Consequently, these findings confirmed the results of work analyzing financial knowledge among high school students. Seven percent of the students were deemed to be financially literate in the 2006 Jump$tart Coalition for Personal Financial Literacy survey which included disproportionately white males whose parents had college degrees (Mandell, 2008). It also confirmed findings of previous work among college students, where again parents played a role in student's financial socialization (Cude et al., 2006).

Lusardi, Mitchell, and Curto (2010) found an important channel through which young adults acquire financial knowledge. This channel is through their parents. For example, college educated males whose parents had stocks and retirement savings was about 45% more likely to know about risk diversification than a female with less than a high school education whose parents were not wealthy. Nonetheless, this study also demonstrated that financial literacy is low; fewer than 33% of young adults possess basic knowledge of interest rates, inflation, and risk diversification. In addition, the findings from this study implied that those whose mothers had a higher education or whose families had stocks or retirement savings were more financially literate, specifically on questions related to advanced financial knowledge, such as the workings of risk diversification.

Looking further, Lusardi, Mitchel, and Curto, (2010) discovered that cognitive ability was a strong predictor of financial literacy. This indicated that those with higher cognitive ability, as measured by Armed Services Vocational Aptitude Battery (ASVAB) scores in high school, were more likely to display higher financial knowledge as young adults.

Evaluating Financial Literacy

Financial literacy is a major concern all over the world (ANZ, 2008; Athens, 2004; Beal & Delpachitra, 2003; Howlett, Kees, & Kemp, 2008; Jiang & Dunn, 2013; U. S. Department of Treasury, 2012), nevertheless, there are few studies that have examined whether behavioral changes take place after participation in a financial education program. The measures of financial literacy used in existing studies may be inaccurate. One example would be a study conducted by Lusardi and Mitchell (2006), which relied on only three questions to measure financial literacy, whereas Stango and Zinman (2007) relied on one question. When measuring financial literacy, a one size fits all method is not effective in all situations because measuring the financial knowledge, behavior, and perception of a youth would be different than that of an adult because of their level of understanding (Lyons et al., 2006).

Previous studies have indicated that there are a lot of difficulties in measuring the effectiveness of financial education. In many cases, financial education has been shown to be beneficial, and has a positive impact on the lives of people. It has been difficult to measure what Lyons (2005), kind of an effect and to what degree a program is making an impact on those who participate. According to researchers as well as financial practitioners, continue to debate the accuracy of various evaluation methods and the measures to use. Program evaluators and researchers alike have come into agreement that four common reliable measures to use in financial research would include changes knowledge, attitudes, behaviors, and outcomes when

measuring savings or debt reduction. A change in behavior does not indicate in all cases that there is an increase in financial knowledge. In addition, the wide variety of financial education objectives makes measuring changes in behavior difficult. A study evaluating the impact of mortgage counseling on first time homebuyers would have to be conducted differently than one measuring the change in financial knowledge of high school students as the result of financial education being introduced into the curriculum (Lyons, 2005).

Over the years, enormous amounts of financial education programs have been developed to enhance the financial well-being of youth, young adult, and adults alike (Alabama Cooperative Extension System, 2004; America Saves, 2012; Federal Deposit Insurance Corporation, 2001 Federal Reserve Bank, 2010; Federal Trade Commission, 2014; JumpStart Coalition for Personal Finance, 2011;National Endowment for Financial Education, 2004;). However, research is limited related to measuring the effectiveness of financial education (Bamberger, Rugh, & Mabry, 2012; Collins & O'Rourke, 2010; Gall, Gall, & Borg, 2007; Zhan, Anderson, and Scott, 2006). The problem is determining what should be measured and how it should be measured. Because different studies use different evaluations for the most part, program outcomes, indicators, and data collection methods vary substantially by program and target audience, which makes it more difficult to design effective program evaluations. Nevertheless, high school seniors are often a warranted population that are sought after to measure financial literacy because they are closer to the age for ownership of a variety of financial assets and they will soon acquire debt and be in a position where they have to repay their debt (Mandell, 2008).

Evaluation frameworks need to be tailored to fit the program and individual objectives. Sebstad, Cohen, and Stack (2006) stated, "any evaluation strategy needs to start by defining a

specific set of questions, relevant levels of analysis, and measurable indicators. The choice will depend on the purpose of the assessment, the audience, and resources available. It also will depend on what reasonably can be expected to change as a result of the program within the time frame of the study." (p. 4).

Marcolin and Abrams (2006) identified the need for research focused specifically on measurement of financial literacy. Typically, financial literacy and financial knowledge indicators are used as inputs to model the need for financial education and explain variation in financial outcomes such as savings, investing, and debt behavior. Few studies exclusively emphasize measurement of financial literacy as an objective.

Over a period of 10 years, Huston (2010) reviewed the range of financial literacy measures used in research. This study indicated that currently there are no standardized instruments to measure financial literacy. The purpose of Huston's work was to develop a more standardized measurement for financial literacy. In this study, 71 individual studies relating to personal finance were reviewed. Terms such as financial literacy, financial knowledge or a closely related construct were included and reviewed. In reviewing the studies for commonality of financial domain content, four main categories were identified: personal finance basics, borrowing, saving/investing, and protection.

Another finding in this research showed that 72% of studies failed to provide a definition of financial literacy, while 47% used the terms financial literacy and financial knowledge synonymously. Out of every 10 studies, as many as nine did not provide an indication as to whether a participant was financially literate (Huston, 2010).

Other studies have made attempts to see if their respondents were financially literate. One example is a study conducted by Volpe, Chen, and Pavlicko (1996) which concluded that a

respondent with an investment IQ score of 70 or better was considered to be investment literate. When considering if one is financially literate, there appears to be a conflict from the Jump$tart surveys. For instance, a score of 60% was needed to be financially literate according to Mandell (1997); however, a score of 75% was needed to be considered financially literate for the 2009 Jump$tart survey. According to Hogarth (2006), several other evaluations of financial education programs are underway. The Consumer Federation of America is leading a longitudinal project to evaluate the impacts of credit counseling, including a variety of counseling delivery formats. An example of the formats are in-person, web-based, or over the phone. The America Saves program is doing a multilevel evaluation of Cleveland Saves, exploring changes at the household and organizational levels. The Philadelphia Federal Reserve Bank is engaged in an evaluation of homeowner counseling programs. Finally, the Federal Reserve Board is beginning a project with the Department of Defense and the U.S. Army post at Ft. Bliss for a longitudinal evaluation of their financial education program (Federal Reserve Bank, 2010). In the future, there should be information about the outcomes and impacts that financial education has on individuals and their communities.

Nonetheless, many organizations who offer financial education are challenged with showing how their program impacts youth or adults. According to Willis (2008), financial literacy study results are weaken due to not having enough controls needed to demonstrate the causal connections between education and literacy to financial decisions and behaviors which is the biggest problem with methods. Worthen and Sanders (1987) stated that program evaluation can be a useful tool in order to formally determine “the quality, effectiveness, or value of a program, product, project, process, objective, or curriculum” (p. 27). In addition, Patton (1997) believed “there are three potential ways to use evaluation which are to “judge merit or worth of a

program; to improve a program; or to generate knowledge about what is needed to improve the program" (p. 10).

Three main barriers to developing a standardized approach in measuring financial literacy was discovered in Huston's (2010) analysis. These barriers included the lack of conceptualization and definition of the concept financial literacy, content of the instrument, and instrument interpretation. The results revealed that almost 75% of the studies did not explain the concept that was used and majority used financial literacy and financial knowledge interchangeably. However, only 25% of the studies included all of the four finance components in their measurements as previously stated. Eight-eight percent of the studies did not include how to interpret the measurement results. There was no ordinary or overall understanding of the concept for financial literacy.

Therefore, there is a need to have some form of evaluation to document what and how financial education programs are effective and making a difference. As concluded by Danes et al. (1999), verifying program effectiveness, developing an evaluation process and instrument that can be duplicated, and contributing to the knowledge development about the effectiveness of financial literacy education of teens is the goal of program evaluation for youth financial literacy programs. There continues to be an increase in the development and delivery of financial education programs (Fox & Bartholomae, 2008). This indicates the need to track the impact of financial education programs in the lives of consumers through evaluation.

Financial Literacy Education Programs

Currently, several programs are available to the public that attempt to improve financial literacy among Americans. This topic has become more and more important, particularly because of the current financial crisis (Bernanke, 2012). As a result, attempts are being made to provide

education to the public on how to do things from balancing a checkbook to planning for retirement. However, Ben Bernanke, Chairman of the Federal Reserve indicated, “effective financial education is not just about teaching students about financial products or performing financial calculations. It also involves “teaching essential skills and concepts they will need to make major financial choices” (Bernanke, 2012, p. 1).

There has been research on the issue of financial education, from either a policy perspective (Bayer, Bernheim, & Scholz, 1996; Bernheim, 1998; Braunstein & Welch, 2002; Caskey, 2001; Fox, Bartholomae, & Lee, 2005) or a pragmatic perspective (Bowen, 1996; Garman, 1998; Hogarth & Swanson, 1993; Montalto, 2000; Perry & Ards, 2001; Rand, 2004; Toussaint-Comeau & Rhine, 2000).

Financial literature materials and educational programs for teenagers are easily accessible (Hogarth, 2002). However, these programs are normally offered by Cooperative Extension, schools, colleges, faith-based organizations, banks, credit unions, community groups, employers, and others (Vitt, Anderson, Kent, Lyter, Siegenthaler, & Ward, 2000).

The America Saves program launched in 1999, is an initiative of the Consumer Federation of America involving more than 1,000 non-profit, government, and corporate groups that encourage individuals and families to save money and build personal wealth (America Saves, 2001). The mission of this nationwide campaign, sponsored by nonprofit, corporate, and government groups help individuals and families save and build wealth. The program targets low to moderate-income families as an effort to raise their awareness and help them to become more financially secure. Through local and regional campaigns, America Saves recruits savers, who commit to the program and pledge to save. Thus far, over 350,000 people have made a personal commitment to save by joining America Saves. America Saves members have committed to save

$21,942,061.00 over the past 12 years. As a result of their pledge to save, savers receive educational strategies and information for fulfilling their financial goals, such as reducing debt, building an emergency fund, and saving for a home, education, or retirement. The Federal Reserve Bank has played a significant leadership role in developing and launching the Saves program. The program has also launched the targeted initiatives Black America Saves, Hispanic America Saves, and Military Saves. America Saves campaign is coordinated by the Consumer Federation of America (CFA), a nonprofit organization. Similarly, in the state of Alabama, the Alabama Cooperative Extension System coordinates the Alabama Saves campaign.

A second program sponsored by The Federal Deposit Insurance Corporation (FDIC) financial literacy program is Money Smart: A Financial Education Program which was launched in 2001. The curriculum was created for the purpose of helping individuals who are unbanked to develop better financial and banking skills to improve their relationships (Federal Deposit Insurance Corporation, 2001). For adults, there are 10 Money Smart Training modules that instructors and corporations can use to teach financial education. The modules include Bank on It, Borrowing Basics, Check it Out, Money Matters, Pay Yourself First, Keep it Safe, To Your Credit, Charge it Right, Loan to Own, and Your Own Home.

In addition to these training modules, there is also education provided particularly to young adults, where “youth ages 12 to 20 learn the basics of handling their money and finances, including how to create positive relationships with financial institutions” (Federal Deposit Insurance Corporation, 2001, p.1). The eight training modules for young people include Bank on It; Check it Out, Setting Financial Goals, Pay Yourself First, Borrowing Basics, Charge it Right, Paying for College and Cars, and A Roof over Your Head. These training programs are similar to

those of the adult program, but are clearly geared towards issues young people face. The teaching modules are taught for 90 minutes (Federal Deposit Insurance Corporation, 2001, p.1).

A third program is on the Federal Trade Commission website, a National Tax Identity Theft Awareness Week. This program is designed to inform consumers how to protect themselves and others from becoming a victim of tax identity theft. This can easily happen if someone's uses another person's Social Security number to get a tax refund or a job (Federal Trade Commission, 2014).

A fourth program, Federal Reserve Education is the Federal Reserve System's recently redesigned financial education web site, designed to increase the use of Federal Reserve educational materials and promote financial education in the classroom. The website has material intended for the general public, as well as materials specifically geared toward teachers of high school and college students. There is free access to educational materials, a resource search engine for teachers and games for various ages and knowledge levels (Federal Reserve Education, 2013).

A fifth financial literacy program, My Money is found at mymoney.gov., a federal government educational website. This is a United States' government website dedicated to teaching all Americans the basics about financial education. Like the previously mentioned programs, consumers search the site and find various information regarding credit, financial planning, budgeting, saving, and much more relating to personal finance (Financial Literacy and Education Commission, 2006).

A sixth program mentioned various times throughout this paper is the Jump$tart Coalition for Personal Financial Literacy that focuses on educating students. The program strives to improve the financial literacy of kindergarten through college age youth by providing

advocacy, research and, standards. The NEFE's High School Financial Planning Program (HSFPP) is a turnkey financial literacy program specifically focused on basic personal finance skills that are relevant to the lives of pre-teens, teens, and young adults (National Endowment for Financial Education, 2011). The National Endowment for Financial Education is known as NEFE. NEFE's is one of few financial literacy resources with a website that targets youth by listing various educational resources on its Economic Independent Clearinghouse database (National Endowment for Financial Education, 2011). A great number of high schools are using the NEFE Financial Education Curricular. The curriculum is organized into six module topics that include planning, borrowing, earning capability, investing, financial services, and insurance. Also, for each module there is a program booklet for each teacher, a variety of 45 minute teacher lesson plans, and numerous online resources and learning activities. This program is free for students and educators (National Endowment for Financial Education, 2011).

Another program include a Football Game Simulation in West Virginia which is used in the classroom to teach personal finance (West Virginia Treasurer's Office, 2006). In December of 2006, school officials, State Treasurer John Purdur, Visa USA and New England Patriots All-Pro wide receiver Troy Brown collaborated to introduce students to Financial Football Training Camp. By students participating, they will learn important lessons dealing with making informed financial decisions as they enter college and beyond (West Virginia Treasurer's Office, 2006).

The Family and Consumer Science (FCS) has a financial literacy program which is a 6-week unit designed to meet the Colorado Core Life Management Curriculum Standard II (Fox & Bartholomae, 2007). It includes Managing Your Finances, and FCS the Life Management course, that supports the math and language arts curricula Education National Standard 2.0. The goal is to teach skills for living independently. The ultimate goal of financial literacy overall is to

build a financially strong society of individuals and families who are financially literate and able to make wise choices with their money. The primary focus of the unit is to ensure that students develop the knowledge and financial literacy skills necessary to make informed choices regarding money management, banking, use of credit, savings and investments, insurance, and taxes. The financial literacy program boosts math, language arts, and technology skills while also teaching youth how to make better decisions with their money (Fox & Bartholomae, 2007).

Real Money, Real World is a youth financial literacy program developed by Ohio State University Extension (Bridgeman et al., 2005), which was adapted with permission from a University of Illinois publication. The six-lesson curriculum was created to simulate real-life experiences to help make youth aware of the money management skills they need in adulthood.

Reality Check is a youth financial literacy program used by Alabama Cooperative Extension System, which was adapted with permission from Dave Loose of Tennessee. The curriculum was created to simulate real-life experiences to help make youth aware of the money management skills they need in adulthood.

Reality Check. *Reality Check* is a real-life financial simulation for youth which gives young people the opportunity to take a brief look into the future in a fun and exciting way (Loose, 1998). Youth are encouraged to make healthy and wise lifestyle choices similar to those adults face on a daily basis. The *Reality Check* simulation is designed to introduce participants to the realities of being financially responsible 25-year old adults by learning the importance of budgeting, prioritizing spending decisions, and saving money. Participants learn financial concepts, gain valuable experience in writing checks, paying bills, and making daily decisions that all adults must tackle on a monthly basis. Also, participants get to see the relationship

between education and a career. There are nine Regional Extension Agents who travel across the State of Alabama to facilitate *Reality Check*. (Alabama Cooperative Extension System, 2014).

Before the real-life simulation, youth are introduced to basic financial topics and discussions during orientation as they relate to the 15 storefront booths. During the real-life simulation, students are given a student card sheet with each storefront icon listed, a Realville Bank checking and savings account ledger, and sample check. Each student card has a different career with an annual and monthly salary. Students have to budget their money based on their monthly net salary. Students are assigned a family status such as married, married with a working spouse, or single, and some are assigned one or two children. Also, each student is assigned an educational status which includes a high school drop-out, high school graduate, tech school graduate, or a college graduate. In addition, there are a total of 15 transactions students can make. The transactions and rules are as follows:

Uncle Sam (Taxes. Students must have taxes taken out. Therefore, taxes are deducted prior to the simulation to help save time.

Reality Automotive. Students must have a means of transportation in the form of a car or bus pass. If they purchase a bus pass, they must purchase a pass for each of their family members for one month.

Realville Realty. Students must have a place to live. They cannot live with parents, grandparents, or in their vehicles. The size of their living quarters has to accommodate their entire family.

Realville Utilities. Students are required to purchase electric service, gas, water, and phone service which can be a land line or cell phone. Cable TV, internet, and pager services are optional.

Chec Clothier. Students must purchase at least one outfit and a pair of shoes for themselves, their spouse, or a child.

Just for Fun. Students have an option to purchase some form of entertainment.

RC Daycare. If students have children, they must have some type of childcare unless they have a non-working spouse.

Super-Mart. Students much purchase groceries and toiletries. Manicures, pedicures, and haircuts are optional.

Realville Insurance. Students must have health insurance, homeowners, and car insurance. Life, dental and rental insurances are optional, but recommended.

Realville Bank. Each student starts the Reality Check simulation with a checking account already established. They must put money into one of four accounts. It is recommended that they put a minimum of twenty-five dollars into their savings account. However, other options are for them to put money into a 401(k), 12-month CD, or mutual funds account.

Realville Jobs. Students are not required to visit Realville Jobs. However, they have an option to get a part-time job in order to make ends meet.

That's Life. Students must pull a card and do what it says. For instance, a card may say "pay $50 for your family to eat at a pizza restaurant." All cards have random things that happen in life that may be expected or unexpected.

Helping Hands. Students are not required to donate to any charity. At the same time, they have an option of donating to the charity of their choice.

Back-to-School. Students are not required to go back to school. If they are drop-outs, or only have a high school diploma or tech degree, they have an option to go back to school.

RealCard. Each student has a “credit card” at their disposal at the beginning of the simulation. They are not required to use it.

Although these are some of the most popular financial education programs above, as well as the financial education program used in Alabama and Ohio, some (Vitt et al., 2000 and 2005; Jacob et al., 2000) have surveyed a variety of educational community-based organizations to determine the availability and extent of initiatives. Vitt et al., (2000) identified 91 programs offered by schools, Cooperative Extension System , colleges (including community colleges), the military, faith-based organizations, community groups, employers and others. Jacob et al., (2000) also identified a list of schools and Cooperative Extension programs as well as those offered by credit counseling agencies, employers and financial institutions, specifically targeting low-income audiences. The Jump$tart Coalition has over 560 resources in its financial education database. The National Endowment for Financial Education lists over 150 educational resources and curricula from a wide range of agencies, organizations, and firms in its Economic Independence Clearinghouse database; many of these materials are available in multiple languages (NEFE, 2001). The Federal Reserve Bank of San Francisco includes 56 programs and resources in its Guide to Financial Literacy Resources (Robinson, 2002).

Summary

As studies continue to reveal that a higher percentage of U. S. citizens are filing personal bankruptcy and that the savings rates are steadily decreasing year by year, the need for wise financial management skills and personal finance knowledge is rising in order to pursue a secure financial future. While a growing number of states are imposing all types of mandatory educational policy in personal finance, little is known about how mandated education actually affects student financial literacy, or which type of mandate has truly benefited students. Much

available evidence suggests that teens are lacking in basic knowledge and their understanding of personal finance principles such as spending and money management, saving and investing, and the use of credit and debt. Previous studies indicated that students scored poorly on personal finance topics. On the two tests administered by the Jump$tart Coalition, students only answered correctly 57% of the questions and in 2000 students averaged 52% of correct answers (JumpStart Coalition for Personal Finance, 1997, 2000).

Previous studies by the Consumer Federation of America (1991) and Danes and Hira (1987) found similar results that reflected Americans low rate of savings, constant misuse of credit and increased rates of bankruptcy. They have stimulated concerns that teens need financial educational training to effectively manage their finances in adulthood. On the other hand, NEFE High School Financial Planning Program produces significant change in both student knowledge and behavior (Danes, Huddleston-Casas, & Boyce, 1999). Likewise, Barrese, Gamer and Thrower (1998) found that high school students who study an insurance education module significantly improve their understanding of insurance concepts. Earlier studies by Langrehr (1979), Langrehr and Mason (1978), and Peterson (1992) also discovered that students who take a certain type of course in consumer education or economics significantly improve their competency in the subject area studied.

Trends continue to suggest that with financial literacy in general, students cannot afford to wait until middle or high school to begin learning about financial literacy. It must start in elementary school where students begin to learn basic concepts dealing with finances and build on it as they progress through primary and secondary school. Building a strong financial educational background at a young age, preferably grade school will help to shape young

people's financial behavior and prepare them to not only make money but also manage money to be financially secure throughout their lives (Borden, Serido, & Collins, 2008).

Important components of personal financial literacy include planning, budgeting, earning, saving, managing financial risks such as health or property events, investing, filing taxes, and the responsible use of debt including credit cards in which policy makers must continue to push for students to be exposed to these topics as a way to help them to become financially literate. For instance, according to results from the Networks Financial Institute (NFI) national research, class instructors validated how vital it is to include financial literacy as part of their class course (National Institute of Financial and Economic Literacy, 2011).

Overall, the collective response by public and private organizations to the accepted and often demonstrated the need for financial education has been impressive in relations to efforts. However, this has not solved the issue. This literature review provided an overview of the wide range of programs aimed at the need for improving American's financial literacy as well as a short review of the current evidence of the effectiveness of financial education programs.

Chapter 3

Methods

Introduction

The intention of this study was to determine the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. Students who participated in the *Reality Check* program were administered a pre-test and post-test measuring the differences between financial behavior changes. Specific comparisons were made between the financial knowledge changes. The study also examined the effect of demographics (race, gender, age, grade, household status, and hometown population size) on participants' perception of the *Reality Check* program.

Purpose of the Study

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. One of the Alabama Cooperative Extension System's goals is to increase financial literacy. In many cases, interactive financial education programs have a mixed history in relations to their impact on increasing knowledge and improving financial behavior of participants. The study examined changes in financial behavior, financial knowledge, and the effect of participant's perception of the overall program after experiencing the *Reality Check* simulation. This study identified planned changes in financial behaviors; financial knowledge gained by participants, and effects of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of the *Reality Check* program

In particular, this study answered the question of whether Alabama Extension's *Reality Check* financial education program is making an impact on youth by changing financial behaviors and improving financial knowledge. This study filled in some of the gaps found in financial literacy research to aid Alabama Cooperative Extension System and stakeholders interested in expanding the scope of the *Reality Check* and other personal finance programs offered in schools and to support legislative with the mandate of personal financial education in the state of Alabama. It can also help to improve program effectiveness, identify best practices, and lead to policy changes specifically for requiring all schools to offer financial education.

Today's youth are making financial mistakes by spending too much and saving too little Norvilitis et al. (2006). Struggling for economic prosperity is difficult, and it is especially hard for young people who have never learned about how to achieve financial security (Jump$tart Coalition for Personal Financial Literacy, 2009). There is a need to be concerned about financial literacy among youth based on the trends reported in various studies (Danes 1994, Duguay, 2006; Jones, 2005; Martin & Oliva, 2001; Narvilite, et al., 2006; O'Neil, 1992; Peng, Bartholomue, Fox, & Cravener, 2007). Financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (American Savings Education Council (ASEC), n.d.2001; Martin & Oliva, 2001; O'Neill, 1992) especially with the use credit of cards. As reported, one-third of high school seniors already use a credit card and have credit card debt, and continues to acquire other types of debt which exposes the lack of understanding of the long-term consequences of these debts (Jump$tart Coalition for Personal Financial Literacy, 2003; U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

Research Questions

The following questions were used in this study:

RQ1. What are the differences, if any, in students' self-reported financial behavior before and after participating in *Reality Check*?

RQ2. What are the differences, if any, among participants' financial knowledge before and after participating in *Reality Check*?

RQ3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

Design of the Study

Many researchers agree that there is a need for youth to become financially literate (Fox, Bartholomae, & Lee, 2005; Golden, 2006; Lusardi, Mitchel, & Curto, 2010; Mandell, 2008; Varcoe et at., 2002). The *Reality Check* program intervention research occurred for two days during normal classroom instruction time. For both days, each activity lasted 52 minutes. Each participant took the first 10 minutes of the class period to complete a paper/pencil pre-test survey before the Reality Check program orientation lecture that involved a class discussion on financial topics on day one. Students participated in the *Reality Check* simulation and then spent the last10 minutes completing a paper/pencil post-survey before leaving class on day two.

The *Reality Check* program normally is delivered within a two-hour period in one setting for a group of 40 to 50 students. However, this is rarely possible in a school setting and time is divided usually into two days. Fifteen storefront booths manned by volunteers are set up for participants to visit as they engage in the hands-on real-life financial simulation to experience the realities of being a financially responsible 25-year old adult.

The overall purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's *Reality Check* Program. Annual reports indicated that many Extension Agents in Alabama Cooperative Extension System have used *Reality Check* with success. However, the information documenting program outcomes have not been collected and analyzed in a systematic way, nor have such results showing program impact been shared through scholarly publications and presentation so that peers might benefit from this knowledge.

For the past few years, the Alabama Cooperative Extension System (ACES) has emphasized a great amount of attention on program evaluation and impact. Due to the demand for the Reality Check program across the State of Alabama, along with the time, effort, and resources put into the program by the agency, the research evaluated financial behavior, financial knowledge, and student's perception for this research. The researcher collected data in the beginning and at the conclusion of the program.

The Real Money, Real World statewide evaluation taken in 2007 is an example of this type of program (Sotak et al., 2008). Results from this study showed that the use of the Real Money, Real World curriculum revealed positive results. "Key findings indicate that the curriculum accomplishes its goals of raising awareness, changing attitudes, and motivating students to plan for behavior changes concerning financial management, education, and career choices. Youth reported that participating in the program was very beneficial and gave them a better idea of what is involved in earning, spending, and managing money," (Sotak et al., 2008, p. 17).

Therefore, similar to Sotak et al. (2008) study, this study was designed to evaluate immediate short-term intended behavioral changes in student's financial behavior, and financial knowledge changes in addition to looking at participant's perception of the *Reality Check*

financial education program. Through this research study, the researcher only assessed short-term effects of the program. Results showed immediate impact of the *Reality Check* program intervention so the Alabama Cooperative Extension System would know if the program is effective and if it is making a difference in the lives of student participants. The results of this study provide more knowledge about the program's short-term outcomes. The researcher obtained permission from the Institutional Research Board (IRB) of Auburn University to conduct this study (See Appendix A).

Population

In this research study, specific attention was given to the middle and high school population. This targeted population represents an important segment of youth who are in need of increased awareness of financial literacy. Beverly and Burkhalter (2005) found that young people's knowledge of finance is lacking and many do not use optimal financial skills. Based on this research, youth and young adults need more financial education in order to make more informed financial decisions as adults (Mandell, 2009). From learning how to manage an allowance or paycheck to setting up a budget, balancing a checkbook, understanding credit, saving money, paying for financial obligations, or setting and obtaining financial goals, financial literacy is a critical component to creating a knowledgeable consumer. Norvilitis et al. (2006) and Jones (2005) emphasized the need to train students on how to effectively manage their personal finances. Previous research found that financial education should be left to the formal education system and all states should mandate public schools to include a financial curriculum (Tschache, 2009).

To obtain a significant sample size of this population, the minimum number of surveys collected was set at 300. This research study had a total of 403 surveys that were collected

voluntarily from eight schools in the following nine regions: Region one, Region two, Region three, Region four, Region five (excluded), Region six, Region seven, Region eight, and Region nine in a farm, rural, town, city or suburb areas. Region five was excluded due to the four month gap in collecting the data. Of those 403 surveys, 396 surveys were used for the analyses (see Table 1). While preparing data collection spreadsheets for analysis, seven surveys were eliminated from analysis if the participants did not complete both the pre-test and post-test.

Table 1

Regions with County, Grade Levels, Estimated Number of Participants, and # of Consent Forms Returned

Alabama Regions	County	Grades Level	Estimated # of Students Participants	Actual Numbers of Students who returned Consent Forms
Region 1	Lawrence	9-12	40	9
Region 2	Jackson	9-12	72	59
Region 3	Birmingham	9-12	45	12
Region 4	Chambers	9	52	36
Region 5	Tuscaloosa	9-12	35	Excluded
Region 6	Dallas	7	138	75
Region 7	Monroe	9-12	139	98
Region 8	Dale	9-12	46	31
Region 9	Lee	9-12	131	83
TOTAL			698	403

Note: N=396 students returned surveys provided usable data. Region 5 was excluded from the study.

The region locations of the student population sample consisted of 2.3% in Region one, 13.9% in Region two, 3.0% in Region three, 8.6% in Region four, 0% for Region five (excluded), 17.7% in Region six, 21.0% in Region seven, 7.6% in Region eight, and 26.0% in Region nine (see Table 2).

Table 2

Research Sites Regions and Usable Surveys

Regions	*N*	% of Useable Surveys
Region 1	9	2.3
Region 2	55	13.9
Region 3	12	3.0
Region 4	34	8.6
Region 5	0	0
Region 6	70	17.7
Region 7	83	21.0
Region 8	30	7.6
Region 9	103	26.0

Note: (*N*=396). Region 5 was excluded from the study.

The *Reality Check* program is offered on a regular basis to the general population of middle and high school (7th through 12th grades) age students across the state of Alabama to help increase financial literacy. This program is used in public, private, and home schools, churches, community groups, and technology schools or centers. Financial literacy and financial behavior of youth are imperative because adopting early behavioral patterns create a foundation for future financial behavior and well-being (America Savings Education Council (ASEC), n.d. 2001; Martin & Oliva, 2001; O'Neill, 1992). Therefore, this population was appropriate to study the effectiveness of the Alabama Cooperative Extension's *Reality Check* program to evaluate the impact. The population of this study included male and female students who were currently in middle or high school. The study was supposed to be conducted at nine schools, one per region in the state of Alabama during the months of April through May. Only eight of nine schools participated in the study. Region five was excluded from the study due to a three to four month gap in scheduling data collection to avoid retroactive interferences. In this case, it was not possible to conduct the *Reality Check* program and collect the data in a timely manner before the end of the school year. Figure 3 illustrates each region with the county breakdowns. According

to Wohldmann, Healy, and Bourne (2008), retroactive interference (RI) is a phenomenon that occurs when newly learned information interferes with and impedes the recall of previously learned information. The participating schools' population consisted of five high schools, one middle school, and two Center of Technology schools.

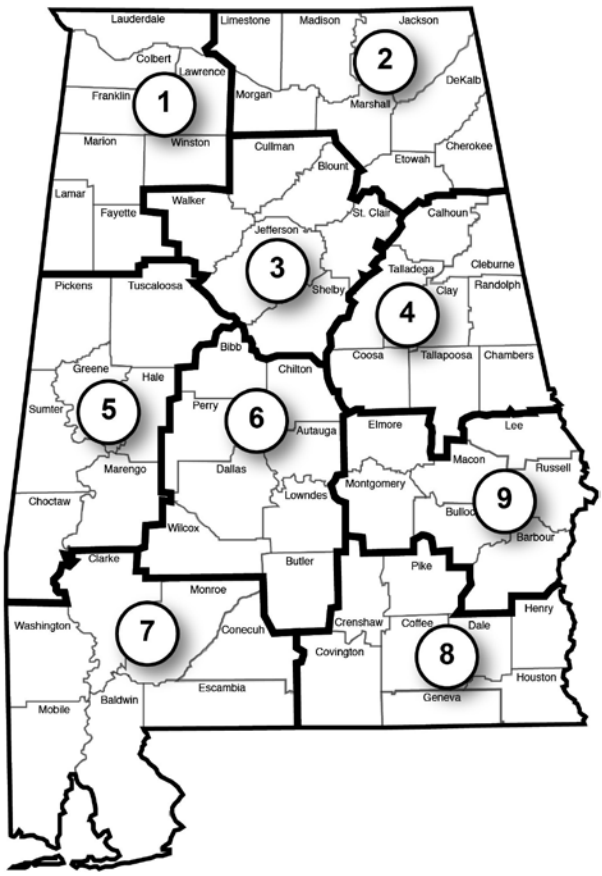

Figure 3. Consumer Science and Personal Finance Regional Map break down of Counties (Alabama Cooperative Extension System, 2014)

Instrumentation

Instrument Development

The researcher developed a survey to measure changes in financial behavior, financial knowledge, and perceptions of participants who participated in the *Reality Check* program. The

Reality Check pre-test and post-test was developed to assess program participants' current and intended behavior changes, and any changes in current knowledge. In addition, data was collected on the youths' perceptions of the *Reality Check* program. Appendix C presents the pre-test and post-test instrument.

The survey instrument consisted of questions for financial literacy derived from previous research as well as those developed by the present researcher. The instruments used in this study were modified from ones originated by Danes et al. (1999) and Mandell (2008). The pre-test contained a total of 18 financial literacy questions. Eight were 5-point Likert scale behavior questions of which seven were developed by Danes et al. and one was added specifically for this study. The remaining 10 financial knowledge questions were multiple-choice questions and were used to measure participant's level of the financial literacy. Two were general questions that asked participants to select who they would give credit to for learning money management skills they possessed before participating in the *Reality Check* program; and what classes at their school exposed them to financial education. The other six questions were demographic questions.

In accordance with a repeated-measures design, the post-test contained the same 5-point Likert-scale behavior questions and 10 multiple choice financial knowledge questions as the pre-test. However, in an attempt to avoid test-wiseness, defined as the use of strategies to increase chances of selecting the correct answer choices on a given test (Farr, Pritchard, & Smitten, 1990; Sarnacki, 1979; Reich, 2009; Rogers & Bateson, 1991), the 18 financial literacy questions were rearranged and presented to the participants in a different order. In addition, there were eight perception questions and one open-ended question. The inclusion of the one open-ended question

allowed for multiple responses about what participants will do as a result of participating in the *Reality Check* program.

The pre-test instrument was in part an adaptation of a similar instrument that assessed financial knowledge, behavior, and self-efficacy developed by Danes et al., 1999. Seven of the financial behavior questions (1, 2, 3, 4, 5, 6, and 8) were used from Danes et al.'s research study. While these researchers investigated the impact of a financial planning curriculum and it also measured financial changes. The 5-point Likert scale (behavioral assessment of personal finance) used for the seven behavior questions were adapted and changed for use in this study. Danes et al. (1999) investigated changes in financial behaviors both immediately following and three months after completing the curriculum. Although the instrument developed by Danes et al. was designed for use with high school students to assess the impact of the National Endowment for Financial Education's (NEFE), it is similar enough to the *Reality Check* curriculum that it proved useful as a starting point to assess financial behavior of middle and high school students.

Four knowledge questions (9,10,14, and 18) were used from the Mandell's (2008) instrument that measured the financial literacy of young American adults. Mandell investigated financial knowledge and the instrument was designed for use with high school students as well as college students to assess the impact of the Jump$tart Financial Literacy for Young American Adults (JumpStart Survey, 2008). The other six knowledge questions (11,12,13,15,16, and17) were developed specifically for this study based some of the financial literacy national standards bench mark requirements for youth, and eight perception 5-point Likert scale questions (19,20,21,22,23,24,25, and 26) were also developed. One open-ended behavior question was added to ask participants to list one or more thing they would do as a result of participating in the RC program (27).

Participants were asked the following demographic questions: race, gender, age, grade, household type, and home location living status. Participants' perception of the *Reality Check* program was obtained as an independent variable. The first section of the survey consisted of 8 personal finance behavior assessment questions. The 5-point Likert scale used to capture students' financial behavior involved ratings as following ranging from 1 to 5: 1= Never, 2= Almost Never, 3= Often, 4= Almost Always, and 5= Always. Those who had higher (3,4,or 5) scores on the scale were assumed to have practiced or planned to practice the mentioned financial behaviors. The second section consisted of the knowledge assessment of personal finance. The third section was allocated to the demographic characteristics questions. The fourth section consisted of a 5-point Likert scale used to capture students' perception that includes the following ratings ranging from 1 to 5: 1= Definitely Disagree, 2= Disagree, 3= Neither Disagree nor Agree, 4= Agree, and 5= Definitely Agree. Those who had higher scores (4 or 5) on the scale were assumed to have a higher perception of the *Reality Check* program. Each respondent selected the scale choice that represented how he or she felt about each option. There was one open ended question asking what participants would do as a result of participating in the *Reality Check* program.

Content for the 18 personal financial literacy items was based on the original curriculum guidelines established by the Jump$tart Coalition. Each item related to one or more of the standards. Financial responsibility and decision making had seven questions appearing on the survey which related to the theme areas of basic concepts and money. Income and careers had two questions on the survey. Four questions pertained to planning and money management. Credit and debt only had one question on the survey. Two questions pertained to risk management and insurance. Lastly, four questions pertained to saving and investing.

The instrument also contained items pertaining to student's personal characteristics. One item instructed students to identify who they would give credit to for learning about the money management skills they already possess. It provided seven choices for responses: My parents, My grandparents, My friends, My teacher(s), A class at school, Life experience, or Other. This question was not used in any of the analyses. This question was asked to further explain the implications and needs for more financial education in the schools.

One item asked students to identify their classes at their school that exposed them to financial education. It provided seven choices for responses: Computer, Consumer Science, Economics, English, Math, Science, or other. This question was not used in any of the analyses. This question was asked to further explain about the subject areas that may be targeted to further promote and improve financial education. Four demographic questions asked students to identify their race, gender, age, and grade level. Another demographic question asked students to choose the best answer that described their household: nuclear family (mother and father), single parent family (mother or father), or legal guardian (a parent granted guardianship by the court). The other question asked students select the best answer that identified their home location population size where they lived. These items consisted of selections of farm, rural area/town with less than (10,000) populations, town with more than (10,000-50,000) population, suburb with over (50,000) population, or city with over (50,000) population.

Validity

Validity is the "extent to which a data collection instruments, or processes, measure what they supposed to measure" (Ross & Shannon, 2008, p. 219). Roberts (2004), in her book *The Dissertation Journey*, indicates that when a researcher develops his or her own instrument or modifies an existing one, it must undergo field testing. After a series of reviews and revisions by

the researcher, in order to ensure the validity of the instrument, copies of the pre-test and post-test survey were sent to a team of Extension's personal finance experts and one consumer science teacher to acquire feedback. Educators were asked to review the instruments for readability at the middle and high school levels checking to make sure the financial terminology was appropriate for both age groups to understand. As additional support for readability, a grade level check was conducted using Microsoft Word, which yielded a 7.3 academic grade reading level.

Based on Alabama Extension's personal finance expert recommendations, four items were changed and three were re-worded. There were no recommendations made to eliminate any of the items from the original instrument. The final version of the pre-test contained 18 financial literacy items and eight personal items. In addition, the final version of the pre-test and post-test contained the same 18 financial behavior and knowledge items, eight personal items, eight perception items, and one item relating to the participant's overall attitude for the question matrix (see Table 3).

Table 3

Reality Check Evaluation Question Matrix

Question No.	Source	Indicator	Concept	Questionnaire Instrument	Activity Measurement Likert-Scales
1,2,3,4,5,6, 8	Adapted from Danes, Huddleson-Casas, & Boyce	Financial Responsibility	Financial Behavior	Pre & Post	Five point Likert-scale, 8 only – multiple choice
7	Self-Developed	Needs Vs. Wants	Financial Behavior	Pre & Post	Five point Likert-scale
9	Jump$tart Coalition	Spending, Financing, investing	Financial Knowledge	Pre & Post	Multiple Choice
10	Jump$tart Coalition	Taxes	Financial Knowledge	Pre & Post	Multiple Choice
11	Self-Developed	Financial Responsibility	Financial Knowledge	Pre & Post	Multiple Choice
12	Self-	Saving, investment	Financial	Pre & Post	Multiple Choice

	Developed		Knowledge		
13	Self-Developed	Risk	Financial Knowledge	Pre & Post	Multiple Choice
14	Jump$tart Coalition	Risk	Financial Knowledge	Pre & Post	Multiple Choice
15	Self-Developed	Banking	Financial Knowledge	Pre & Post	Multiple Choice
16	Self-Developed	Financing and credit	Financial Knowledge	Pre & Post	Multiple Choice
17	Jump$tart	Credit	Financial Knowledge	Pre & Post	Multiple Choice
18	Jump$tart	Income	Financial Knowledge	Pre & Post	Multiple Choice
19	Self-Developed	Financial Skills Learned	Financial Literacy	Pre	Multiple Choice
20	Self-Developed	Financial Education	Financial Literacy	Pre	Multiple Choice
21	Self-Develop	Ethnicity	Demographics	Pre	Multiple Choice
22	General	Gender	Demographics	Pre	Multiple Choice
23	General	Age	Demographics	Pre	Fill in the blank
24	General	Grade Level	Demographics	Pre	Multiple Choice
25	General	Family Household Type	Demographics	Pre	Multiple Choice
26	General	Home Location	Demographics	Pre	Multiple Choice
19	Self-Developed	Program Benefits	Perception	Post	Five point Likert-scale
20	Self-Developed	SMART Goals	Perception	Post	Five point Likert-scale
21	Self-Developed	Improving Financial Skills	Perception	Post	Five point Likert-scale
22	Self-Developed	Relationship b/w Education & Career	Perception	Post	Five point Likert-scale
23	Self-Developed	Budgeting	Perception	Post	Five point Likert-scale
24	Self-Developed	Recommendation	Perception	Post	Five point Likert-scale
25	Self-Developed	Confidence	Perception	Post	Five point Likert-scale
26	Self-Developed	Recommendation	Perception	Post	Five point Likert-Scale
27	Self-Developed	Making a change	Behavior Change	Post	Open-ended question

Although the instrument closely follows the format and methods used by Danes et al. (1999), their study included only high school students. Likewise, the instrument used by Danes et al. (1999) for high school students was also used by Bateson (2009) for middle school student in a research study titled *A Follow-up Study of Ohio State University Extension's Youth Financial*

Literacy Program Real Money, Real World: Behavioral Changes of Program Participants. This study included both high and middle school students. Since this study was not conducted only with high school students nor previously used with middle school students, a pilot test was needed.

Pilot Test

The purpose of the pilot test was to check for readability on middle and high school levels, participants' ease of use, understanding, and total time needed for completion. The researcher had planned for the instrument to be tested by a total of fifteen to twenty 4-H members in which only 10 actually showed up for the pilot test with ages ranging from 12 to 18. Bad weather played a significant role in low student participation for the pilot. After the pilot was completed, two questions (19,24) on post-test in the perception section were edited slightly to increase readability and understanding. Based on previous study, it was expected that the survey instruments for both the pre-test and post-test would take approximately 15 to 20 minutes to complete. The pilot confirmed that it would take a total of 20 minutes to complete both the pre-test and post-test survey instruments with each taking approximately 10 minutes to complete. According to the pre-test results, only two items needed to be reworded and clarified. The first item changed was originally worded as "What will happen, if you do not make your car payment?" For better clarity to fit the original responses of a) Foreclosure, b) Repossession, c) Incarceration, and d) All of the above, the wording was changed to "What is likely to happen, if an individual fails to make all agreed payments on a vehicle?" The second item changed was originally worded as "Everyone need this type of fund at some point in life." For better clarity to fit the original responses of a) Emergency Fund, b) Mutual Fund, c) Trust Fund, and d) General Fund, the wording was changed to "When something happens in life that is not planned, it is

important to have a _____." To avoid test-wiseness, the post-test behavior and knowledge questions were re-ordered on the final instrument.

Reliability

Reliability is defined as the "extent to which [the data-collection instruments] yield consistent results with minimal error" (Ross & Shannon, 2008, p. 219). A statistical check of internal consistency was performed on each individual behavior and perception scale in the data set using Cronbach's alpha. Cronbach's alpha is a coefficient of reliability, or internal consistency. Ross and Shannon (2008) asserted that the more consistent the results from an evaluation are, the more reliable they are. Likewise, Ary, Jacobs, and Razivieh, (2002) emphasize that Cronbach's alpha is most used by researchers when they use Likert-type scales to collect data. Alpha coefficients range in value from 0 to 1, the higher the score, the more reliable the scores from the scale are. Santos (1999) noted .70 as an acceptable reliability coefficient. George and Mallery (2003) also asserted that when Cronbach's alpha is a .70 or more it indicates an acceptable and excellent internal consistency. For this study, the analysis yielded a good coefficient reliability scale for behavior pre-test Cronbach's alpha value .74, behavior post-test Cronbach's alpha value .90, and student's perception scale Cronbach's alpha value .92 (see Table 4).

Table 4

Cronbach's Alpha for Behavior Pre-test Scale, Behavior Post-test Scale, and Perception Scale

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	*N* of Items
Behavior Pre-test Scale	.74	.74	8
Behavior Post-test Scale	.90	.90	8
Perception Scale	.92	.92	8

To ensure the instrument's reliability, the original Personal Finance Curriculum Standards for grade 7 through grade 12, established by the Jump$tart Coalition provided the instrument's content basis (Jump$tart Coalition for Personal Financial Literacy, 2007, p. 4), defines these standards. The Coalition revised these standards in January 2007, after the instrument's development. The Coalition established standards in six areas: financial responsibility and decision making; income and careers; planning and money management; credit and debt; risk management and insurance; and saving and investing.

Ethical Issues

Ethical issues such as confidentiality, cause no harm to respondents, anonymity and consent were taken into consideration while conducting the research. This indicates the researcher treated the collected information with confidentiality by not stating that particular respondents made a certain statement or selected a certain answer. The other ethical issue taken into consideration was anonymity whereby the respondent should not provide under any circumstance their names or reference numbers that may identify them as the particular individual that gave certain statements (Punch, 2005). In this study, the researcher did not ask for any names nor any other information-identifying participants.

The other ethical issue was consent. According to Fowler (2008), participants should be briefed on the purpose of the study and also be informed on any recording that may take place, this way the researcher should gain the consent of the participants by briefing them on the purpose of the study and also how the information will be recorded. Each participant was provided with a copy of the consent letter that gave details of the research and what was required of participants to ensure that no deception in data collection would occur. Additionally, the research should not cause harm to the individuals, this takes place whereby the researcher should

not ask questions that offend the participants (Fowler, 2008). To avoid this, the researcher had a professional team of experts to review the questions to make certain they were not offensive. Also prior to conducting the research, the researcher met with the Regional Extension Agents who would be available to facilitate the *Reality Check* program to inform them of the purpose of the research, the procedure, and the boundaries each were to stay in. Each Regional Extension Agent was instructed specifically not to discuss anything with the participants that were not related to the research. As a precaution, the researcher was onsite to help control this possible ethnical violation.

Consistent with ethical procedures, participation in this research was voluntary. As a briefing, students were reminded that refusal to participate before or during data collection had no effect on grades or evaluation of their performance in class. Respondents were informed that participation was voluntary and their parents had a right to change their mind about their student participating in the study. In addition, even though the survey questions were not invasive or focused on sensitive issues, the participants were informed that they could skip any question or set of questions that made them feel uncomfortable.

In this research, study concerns of parental consent were critical. The Joint Committee on Standards for evaluation requires that evaluations have four features: utility, feasibility, propriety, and accuracy (Patton, 1997). For the wellbeing of those involved in the evaluation process and those affected by the results, the propriety standards warrant that an evaluation will be conducted legally as well as ethically because the propriety is a great concern when evaluation participants are minors. Parental consent was required for students to participate in this study in order to be in compliance with legal obligations and ethical guidelines. All information obtained in connection with this study that could be identified to a child, would

remain confidential and be disclosed only with the parent's permission. If parents gave permission by signing the consent document, only the information collected would be disclosed in the form of a completed research study; their child's name and identity would remain confidential. Therefore, the researcher followed all guidelines required for the protection of human subjects as outlined by the Institutional Review Board (IRB) (See Appendix A).

Privacy and Confidentiality of Student Data

The proper courses of action were taken to insure the privacy and confidentiality of the data collected at the research sites. The researcher obtained permission from the Institutional Research Board (IRB) of Auburn University to conduct this study (See Appendix A). As required by the IRB, the researcher obtained written permission from school principals to conduct this study with an understanding that only the researcher and committee chairperson had permission to view students' responses to the data obtained. During the course of the study, all data obtained were kept in a secure file at the researcher's office. Copies of the date were kept under lock and key at the Madison County Extension Office. A numbering system on index cards was used to keep student information anonymous while allowing the researcher to match the pre-test and post-test. Prior to collecting data for this study, it was estimated that 938 students would participate in the study. Data was collected from 403 (42.9%) middle and high school students between the ages of 12 to 18 and included age 19 if the student was still in grade 12.

Procedures

To obtain data for this study, contact was made to Regional Extension Agents and County Executive Coordinators in Alabama requesting them to recommend a teacher or a school administrator in assigned work regions. Teachers and school administrators were identified and teachers were asked via phone calls and e-mail to indicate their interest in the research using

their class. After teachers responded via email verifying their willingness to help with the research, they were asked to follow-up with their school's administrators who were contacted via e-mail informing them about the study and inviting them to grant permission for their school to be a research site.

Invitation letters were sent via email to school principals to seek permission for their school to be a research site. Of all school principals asked to participate in the research, all accepted the invitation. No additional criteria were required for a school to participate in the research besides identifying a host teacher to work with the researcher. Participation was on a voluntary basis after principals were invited to participate. Principals were asked to indicate their consent to participate in the research on their school's letterhead. Upon completion of this request, principals were instructed to send letters to the researcher via email, fax, scan, or through regular mail. After receiving permission letters on letterheads from school principals, letters were submitted to the Institutional Review Board (IRB) with the proposal for approval (see Appendix B).

Prior to collecting data for this study, the researcher obtained permission from the Institutional Review Board (IRB) at Auburn University and was granted expedited status for the study with Protocol Number # 13-131 EP 1304 (see Appendix A). After receiving final approval from the Institutional Review Board (IRB), teachers were contacted to schedule dates for the research to be conducted. Upon scheduling dates and establishing an estimated number of students from each participating school, parental consent forms were copied and mailed to each research site. The researcher sent the parental consent forms to each school's host teacher for distribution to students to seek parental permission before participating in the research. The

parental consent form explained the nature of the study and expectations of participants (see Appendix A).

All students were invited to participate in the study. Student participation was voluntary with parent's informed consent. Refusal to participate involved no penalty, there were no risks, and if at any time a person wished to stop participating, he or she was free to do so. Any participants that were 12 to 18 years old or 19 in some cases in grade 7 to grade 12 were allowed to participate in the study; however, no student was permitted to participate in the study if parental consent documents were not completed and returned to the researcher before the research began.

After students returned the consent forms, teachers provided the researcher the total number of eligible student participants. Student participation was voluntary and students without returned parental consent forms were asked not to fill out the pre-test and post-test instruments, although they were still allowed to participate in the *Reality Check* program. Data collection for this study was conducted from April 22, 2013 to May 20, 2013. Data was not collected in Region 5 due to the three to four month time lapse in between scheduling. Below, Table 5 shows by county the principals agreements and mail schedule.

Table 5

Participating Counties Principal Agreement and Mail Schedule

Region	Principal Agreed for School to Participate in Study	Date Mailed Evaluation to Schools
North Region 1	Yes	April 19, 2013
North Region 2	Yes	April 19, 2013
North Region 3	Yes	April 19, 2013
Southeast Region 4	Yes	April 19, 2013
Southwest Region 5	Yes	April 19, 2013
Southwest Region 6	Yes	April 19, 2013
Southwest Region 7*	Yes	April 17, 2013*
Southeast Region 8	Yes	April 19, 2013
Southeast Region 9	Yes	April 19, 2013

Note: Region 5 was excluded from the study. *Survey instruments were sent over night to the school in Region 7.

Each student received individual numbered index cards. Before distributing the survey instruments, the researcher numbered index cards for each class and the respective instruments for matching purposes. Regional numbers were written on the pre-test and post-test. Participants received an index card in exchange for their signed parental consent form. The index cards linked both the pre-test and post-test. Index cards were distributed in a non-sequential manner to preserve the anonymity of participants.

The researcher administered the survey instrument during the months of April through May with either a Regional Extension Agent or the researcher proctoring. Upon survey completion, students returned the pre-test instrument on day one and repeated the same protocol on day two for the post-test at the conclusion of the *Reality Check* program intervention. To protect the privacy of participants, the research instrument did not contain any identifiers; therefore, all responses were anonymous. All survey instruments were returned to the researcher. All responses were kept confidential and anonymous.

The data collection was facilitated by the researcher and took place in the classroom. Data collection took place in two stages. First, a pre-test survey was administered before the *Reality Check* orientation and lecture. The pre-test survey targeted participant's current self-reported financial behavior, financial knowledge, and general questions. Secondly, the post-test survey was conducted after the *Reality Check* program and captured changes in self-reported financial behavior and financial knowledge, as well as participant's perception of the program. It also captured what respondents said they will do as a result of participating in the *Reality Check* program.

Variables

The dependent variable for Research Question 1 was related to one's self-reported financial behavior of *Reality Check*. The independent variables were financial behavior pre-test and post-test scores. There were eight 5-point Likert scale financial behavior questions with 5 attributes where 1 = Never, 2 = Almost Never, 3 = Often, 4 = Almost Always and 5 = Always. The behavior questions were assigned a numerical score and grouped together. Each test score was entered into SPSS and analyzed using a paired *t*-test.

For Research Question 2, the dependent variable was financial knowledge of *Reality Check*. The independent variables were the pretest and posttest financial knowledge score. Each of the 10 knowledge questions were assigned a numerical score where 1 = correct answer, and 0 = incorrect answer for each question. Each question was assigned a numerical score and grouped together. Test scores were entered into SPSS and analyzed using a paired t-test.

For Research Question 3, the dependent variable was the student's perception of the *Reality Check* program. The independent variables included demographics data such as race, gender, age, grade level, family household status, and home location. Each individual independent variable was correlated with the perception questions using a One-way ANOVA. There were eight 5-point Likert scale perception questions with 5 attributes where 1 = Definitely Disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, and 5 = Definitely Agree. Before recoding, the following variables were entered into the SPSS system. The race variable was assigned seven attributes, 1= White, 2= African American, 3=Alaskan/American Indian, 4= Asian/European American, 5= Hawaiian/Pacific Islander, 6= Two or more race ethnicity, and 7= Other. The gender variable had two attributes of 1 = Male and 2= Female. The age variable had eight attributes that were 1= 12 years old, 2= 13 years old, 3= 14 years old, 4= 15 years old,

5= 16 years old, 6= 17 years, 7= 18 years old and 8= 19 years old. The grade level variable had six attributes that included 1= Grade 7, 2= Grade 8, 3= Grade 9, 4= Grade 10, 5= Grade 11, and 6= Grade 12. The family household status had three attributes of a 1= Nuclear family (both parents), 2= Single parent home (one parent), and 3= Legal guardian parent. In addition, the living location had five attributes 1 = Farm, 2= rural/town areas with less than (10,000) population, 3= Town with (10,000-50,000) population, 4= Suburb with over (50,000) populations, and 5= city with over (50,000) populations.

Data Analysis

The methodological approach to data analysis used in this study was quantitative. After collecting survey instruments, responses were coded and entered into the computer database statistical software package SPSS v. 21. All missing data was left blank and the computer automatically computed as missing data without coding. The first analysis involved computing descriptive statistics for each variable, such as frequencies, means, and standard deviations. Frequencies and percentages were computed to describe all participants' demographics (race, gender, age, grade, household type, and home location living status).

After analyzing the descriptive data, a paired sample *t*-test was analyzed in this study for Research Questions 1 and 2. When analyzing the t-statistic, a large value of *t* is usually interpreted as evidence that the value of the sample statistic is one that would be unlikely to be observed if the null hypothesis were true (Warner, 2008). Standard deviation indicates how much observations deviate from the mean. Degrees of freedom (*df)* are the number of independent pieces of information on which a statistic is based (Warner, 2008). The *p* value represents the theoretical probability of obtaining a research result to or greater than the one obtained in the study, when the null hypothesis is correct (Warner, 2008,).

In this study, a paired sample *t*-test was run using the Financial Behavior before and after scales to determine if differences existed in the participants' before and after the *Reality Check* intervention. A paired sample *t*-test was also run using the Financial Knowledge before and after scales to determine if differences existed in the before and after knowledge scores. Before running the paired sample *t*-test, the researcher compiled the total number of questions answered correctly for each participant's survey. The pre-test and post-test scores were entered into SPSS v. 21 and coded as 1= correct answers and 0= incorrect answers. If any significance found, Cohen's D was calculated to determine the effect-size of the sample for both the financial behavior and the financial knowledge.

One-way ANOVA was conducted to explore the effect of demographics (race, gender, age, grade level, family household type, home location) on participants' perception of the *Reality Check* program. Before running the ANOVA, the race variables were recoded into dummy variables. In order to create the race scales, responses were recoded 1= White, 2= African American, 3 =All other races. The gender variable had two attributes of 1 = Male and 2= Female. In order to create age scales, responses were recoded 1= 12-13 years, 2= 14-15 years, 3= 16-17 years, and 4= 18-19 years old. In order to create grade level scales, responses were recoded 1= Grade 7 and 8, 2= Grade 9 and 10, 3= Grade 11 and 12. The family household status had three attributes of a 1= Nuclear family (both parents), 2= Single parent home (one parent), and 3= Legal guardian parent. In addition, in order to create a home location scale, responses were recoded 1= Farm, rural areas or town with less than (10,000) population, 2= Town with (10,000-50,000) population, 3= Suburb and city with over (50,000) populations. Differences were determined by analysis of variance ($p \leq .05$). For demographic variables that

have more than two groups (race/ethnicity, age, grade level, family household, and home location location). Scheffe' test was used to identify differences between individual groups.

There was one open-ended question asked on the survey instrument. Responses for this question were analyzed via open coding to identify themes (Strauss & Corbin, 1990). As defined by Strauss and Corbin (1990), open coding is the "process of breaking down, examining, comparing, conceptualizing, and categorizing data" (p. 61). Through the process of open coding, the researcher is allowed to examine the raw data for each question on a line-by-line (Strauss & Corbin, 1990). This strategy is used to allow the researcher to place similar items into categories utilizing themes that arise from searching through the data in an inductive manner. The themes and remarks were highlighted for the open ended question relating to what participants will do as a result of participating in the *Reality Check* program (see Appendix E).

Summary

This chapter detailed the methods that were used throughout the study. The chapter reviewed various concerns and reasons why a quasi-experimental design was chosen. An examination of the criteria surrounding the sample population, a description of the instrument, and data collection procedures, study's variables, and an accounting of the data analyses used in the study were discussed. Data were solicited from 403 middle and high school students from across the state of Alabama in eight of nine regions. The next chapter presents the findings based in the preceding methods.

Chapter 4

Findings

Introduction

This study was designed to determine the effectiveness of Alabama Cooperative Extension System's Youth *Reality Check* financial education program. Analyses of the data from the pre-test and post-test are presented in this chapter. Results from comparing the differences between before and after financial behavior changes; and financial knowledge changes are reported. The effect between the overall perception of the *Reality Check* program and demographics (race, gender, age, grade, household status, and home location population size) are reported to show if there were significant differences between perception and demographics. The findings reported are based on *N*=396 responses from participants.

Purpose of the Study

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. One of the Alabama Cooperative Extension System's goals is to increase financial literacy. In many cases, interactive financial education programs have a mixed history in relations to their impact on increasing knowledge and improving financial behavior of participants. The study examined changes in financial behavior, financial knowledge, and participant's perception of the overall program after experiencing the *Reality Check* simulation. This study identified planned changes in financial behaviors; financial knowledge gained by participants, and effects of demographics (race,

gender, age, grade level, family household type, home location) on participant's perception of the *Reality Check* program.

In particular, this study answered the question of whether Alabama Extension's *Reality Check* financial education program is making an impact on youth by changing financial behaviors and improving financial knowledge. This study filled in some of the gaps found in financial literacy research to aid Alabama Cooperative Extension System and stakeholders interested in expanding the scope of the *Reality Check* and other personal finance programs offered in schools and to support legislative with the mandate of personal financial education in the state of Alabama. It can also help to improve program effectiveness, identify best practices, and lead to policy changes specifically for requiring all schools to offer financial education.

Today's youth are making financial mistakes by spending too much and saving too little Norvilitis et al. (2006). Struggling for economic prosperity is difficult, and it is especially hard for young people who have never learned about how to achieve financial security (Jump$tart Coalition for Personal Financial Literacy, 2009). There is a need to be concerned about youth financial knowledge based on the trends reported in various studies (Danes 1994, Duguay, 2006; Jones, 2005; Martin & Oliva, 2001; Narvilite, et al., 2006; O'Neil, 1992; Peng, Bartholomue, Fox, & Cravener, 2007). Financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (American Savings Education Council (ASEC), n.d. 2001; Martin & Oliva, 2001; O'Neill, 1992) especially with the use credit of cards. As reported, one-third of high school seniors already use a credit card and have credit card debt, and continues to acquire other types of debt which exposes the lack of understanding of the long-term consequences of these debts (Jump$tart Coalition for Personal Financial Literacy, 2003;

U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

Research Questions

The following questions were used in this study:

RQ1. What are the differences, if any, in students' self-reported financial behavior before and after participating in *Reality Check*?

RQ2. What are the differences, if any, among participants' financial knowledge before and after participating in *Reality Check*?

RQ3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

The sample of this study consisted of *N*=396 middle and high school students located in eight of nine regions in the State of Alabama. Of the 403 participants, 382 were 18 years old or younger. There were 21 students who were 19 years old which was above the age that required parent consent. Since these students were still in high school, parents were asked to give consent for their child to participate. Of those 21 participants, all returned a completed parental consent document in addition to the 382 students who were under age 18. However, overall 396 surveys were useable for the study (*N*=396).

Pre-test and post-test questions were examined and coded for the eight financial behavior questions. Pre-test and post-test questions were reviewed and graded for the financial knowledge questions. Any question left unanswered was counted as an incorrect answer. Each question was valued at 1 point resulting in a total of 10 possible points for all questions. The financial literacy knowledge score was calculated by adding all correct answers. When entering the data for the pre-test and the post-test for financial knowledge questions, each correct answer was coded (1)

and each incorrect coded (0). Each of the eight demographic questions were coded and entered. Also, participant's perceptions of the *Reality Check* program were coded before entering the data into the computer program SPSS 21.

Demographic Characteristics

Findings reported are based on responses from *N*=396 participants. This section presents findings related to all three research questions. Characteristics involving demographic statistic were collected by race, gender, age, grade, household status, and home location. Table 6 reveals all demographics included in this study. The student participants between the ages of 12 and 19 with a mean age of 15.3 (*SD*=1.74). The race/ethnicity of 199 (50.3%) participants was mostly African American, followed by 153 (38.6%) Caucasian American, and 44 (11.1%) other. There were more females 230 (58%) than males 166 (42.0%). Grade 9 was the average grade of the participants. The overall grade level breakdown was 73 (18.4%) grade 7, 198 (50.0%) grade 9, 29 (7.3%) grade 10, 45 (11.4%) grade 11, and 51 (12.9%) grade 12. Students in grades 7 through 12 were invited to participate in the study. There were no 8th grade participants in the study, although they were initially include to participate. Household status was another demographic category collected in the study. The majority of participants 49.9% responded that they live in a nuclear family (both parents), 42.8% living in a single parent home (one parent), and 7.3% responded living with a legal guardian parent. Legal guardian refers to any guardian who the court appointed to care for a child. Finally, home location was another demographic category used in this study. The majority of participants in the study responded either living 46.9% on a farm, in a rural or town location with less than (10,000) population, 41.3% living in town with (10,000-50,000) population and 11.9% living in a suburb or city with over (50,000) population.

Table 6

Demographic Characteristics of Students

Demographics	*n*	%	$\bar{X}$
Age			15.3
12-13	65	16.5	
14-15	172	43.6	
16-17	109	27.7	
18-19	48	12.2	
Race			
White/Caucasian	153	38.6	
Black/African American	199	50.3	
Alaskan/American Indian	1	.3	
Asian/European America	3	.8	
Hawaiian/Pacific Islander	2	.5	
Two or more race ethnicity	21	5.3	
Other	17	4.3	
Gender			
Male	166	42.0	
Female	230	58.0	
Grade level			
7th	73	18.4	
9th	198	50.0	
10th	29	7.3	
11th	45	11.4	
12th	51	12.9	
Household			
Nuclear Family	197	49.9	
Single Parent Family	169	42.8	
Legal Guardian Parent	29	7.3	
Home location			
Farm	16	4.1	
Rural area/town with 10,000 population	169	42.8	
Town with 10,000 to 50,000 population	163	41.3	
Suburb with over 50,000 population	10	2.5	
City with over 50,000 population	37	9.4	

(*N*=396)

Research Question 1

What are the differences, if any, in students' self-reported financial behavior before and after participating in *Reality Check*?

Eight questions from the pre-test and post-test focused on participant's financial behavior before and after participating in the *Reality Check* program. Frequency distributions were calculated for each question. Table 6 reports the frequencies and percentages of financial behavior changes. Financial behavior that participants indicated practicing the most before and after the program were determined by combining responses to "often," "almost always," and "always" scores. The financial behaviors participants reported practicing the most before the program included buying items needed first, then items wanted 91.3%, setting aside money for future needs or wants 77.2%, and saving money on a regular basis 77.0%. Participants reported that after the program, the financial behaviors they plan to practice the most in the future included the same three habits listed above. There was an increase of 18.7% change in the area of setting money aside for future needs or wants, and a 16.4 % change for saving money on a regular basis, respectfully. On the other hand, buying items needed first, then items wanted slightly increased by (1.1%).

On the contrary, participants reported that before the program, they practiced the same three habits the least with a combined response of "never" or "almost never," to included writing goals for managing money (63.9%), discussing money management with my family(62.3%), and using a spending plan or budget 58.8% as reported in Table 7. Participants also indicated that after the program, the habits they planned to do the least included two of the three items listed above which include discussing money management with my family (20.3%) and writing goals for managing money (15.2%).The third habit least practiced by the participants was comparing

prices when shopping (13.7%). There was a change in habits least practiced before and after the program. The discussing money management with family response decreased from 62.3% to 20.3%, writing goals for managing money decreased from 63.9% to 15.2%, and using a spending plan or budget decreased from 58.8% to 13.7%. This decrease in these scores indicate a change in the mind of participants because more decided to either start practicing these financial practices often, almost always, or always rather than never or almost never.

Overall, financial behaviors that increased the most from what participants reported as doing “often,” “almost always,” and “always” before the program compared to what they plan to do after the program included writing goals for managing money which increased from 36.2% to 84.7%,a change of (48.5%). Using a spending plan increased from 41.1% to 89.1% yielding a change of (48.0%). Discussing money management with family increased from 37.4% to 79.6%, which was a change of (42.2%). Further analysis was conducted to see where and if there were any significant differences in the noted changes.

Table 7
Frequencies and Percentages of Financial Behavior Changes of Reality Check Participants

Financial Behavior		1		2		1+2	1+2	3		4		5		3+4+5		3+4+5
		Never		Almost Never		Combined	Combined Change	Often		Almost Always		Always		Combined		Combined Change
		N	%	N	%	%	%	N	%	N	%	N	%	N	%	%
1. Tracking spending…..	Before	122	30.8	82	20.7	51.5		108	27.3	54	13.6	30	7.6	192	48.5	
	After	27	6.8	18	4.6	11.4	40.1	94	23.9	89	22.6	166	42.1	349	88.6	40.1
2. Comparing prices…...	Before	39	9.8	58	14.6	24.4		139	35.1	71	17.9	89	22.5	299	55.5	
	After	32	8.1	22	5.6	13.7	10.7	61	15.5	81	20.6	198	5.03	340	86.4	30.9
3. Setting aside money for future…..	Before	43	10.9	47	11.9	22.8		143	36.1	73	18.4	90	22.7	306	77.2	
	After	8	2.0	8	2.0	4.0	18.8	65	16.5	107	27.2	205	52.2	377	95.9	18.7
4. Spending plan/budget...	Before	135	34.1	98	24.7	58.8		94	23.7	42	10.6	27	6.8	163	41.1	
	After	22	5.6	21	5.3	10.9	47.9	97	24.6	92	23.4	162	41.1	351	89.1	48.0
5. Writing goals for money….	Before	170	42.9	83	21.0	63.9		89	22.5	34	8.6	20	5.1	143	36.2	

	After	24	6.1	36	9.1	15.2	48.7	102	25.9	88	22.3	144	36.5	334	84.7	48.5
6. Saving money.....	Before	38	9.6	53	13.4	23.0		136	34.3	83	21.0	86	21.7	305	77.0	
	After	13	3.3	13	3.3	6.6	29.6	70	17.8	99	25.2	198	50.4	367	93.4	16.4
7. Buying items needed… then items wanted.	Before	26	6.6	48	12.1	18.7		134	33.8	88	22.2	100	25.3	322	91.3	
	After	12	3.0	18	4.6	7.6	11.1	80	20.3	96	24.4	188	47.7	364	92.4	1.1
8. Discussing money management. …..	Before	149	37.6	99	25.0	62.3		78	19.7	40	10.1	30	7.6	148	37.4	
	After	33	8.4	47	11.9	20.3	42.0	88	22.3	82	20.8	144	36.5	314	79.6	42.2

The alpha level was set at 0.05 throughout the study. The discussion of the results focuses on the findings that are statistically significant at or beyond the .05 alpha level. A paired *t*-test was conducted to test for differences before and after the *Reality Check* program to explore for possible significant differences in the Financial Behavior Before and Financial Behavior After scores. Financial behavior pre-test and post-test items means and standard deviations are presented in Table 8. The results of the paired *t*- test indicated that there was an overall significant difference in the before scores (M=2.82, SD=.736) and after scores (M=3.96, SD=.887); t (393) =-23.50, p <.001. These results suggest that there was a change in the before and after financial behavior test scores. Specifically, the findings show that participant's scores increased on the posttest indicating that they plan to practice better financial behaviors after participating in the *Reality Check* program.

For all significant differences found, an effect size was calculated using the following formula: $d = \frac{t}{\sqrt{n}}$. Cohen's d and the effect-size correlation were calculated using the means and standard deviation from the two groups. Cohen's d was calculated as 1.399, a very large effect size according to Cohen's d (1992) guidelines (Effect size – small =.20, Medium =.50 and Large =.80 or higher). This indicates the *Reality Check* program has a large effect on influencing participants to plan to change their financial behavior.

Table 8

Paired t-test Comparison of Financial Behavior Pre-test and Post-test Items Means and Standard Deviations

Questions	$\bar{X}$	*SD*	*t*	*p*
1. Tracking spending …….				
Before	2.46	1.26	-17.55	.000
After	3.89	1.20		
2. Comparing prices…….				
Before	3.29	1.24	-9.282	.000
After	3.99	1.27		
3. Setting aside money for future …..				
Before	3.30	1.25	.-13.59	.000
After	4.25	.942		
4. Spending plan/budget…				
Before	2.31	1.24	-21.56	.000
After	3.89	1.17		
5. Writing goals for money……				
Before	2.12	1.20	.-20.98	.000
After	3.74	1.21		
6. Saving money…….				
Before	3.32	1.23	-11.73	.000
After	4.16	1.04		
7. Buying items needed… then items wanted.				
Before	3.48	1.18	-8.75	.000
After	4.09	1.06		
8. Discussing money management….				
Before	2.24	1.27	-17.26	.000
After	3.65	1.31		
Overall				
Before	2.82	.736	-23.50	.000
After	3.96	.887		

*p < .05. See Appendix C for complete questions.

Research Question 2

What are the differences, if any among participants' financial knowledge before and after participating in *Reality Check*?

Ten multiple-choice pre-test and post-test questions were posed to respondents regarding their knowledge of financial concepts before and after participating in the *Reality Check* program. The passing score for the knowledge test is 70% (seven correct questions out of ten). Fifty-six percent of respondents received passing scores on the pre-test and 81% of respondents received passing scores on the post-test. There was an overall change from the pre-test to the post-test score of 25 percentage points. The average pre-test knowledge score was 65%, an overall failing score. The pre-test knowledge median score was 70%. In contrast, the average post-test knowledge score was 78.9%, an overall passing score. The post-test knowledge median score was 80%. This indicates that participants had an overall 13.9% increase in their financial knowledge score after participating in the *Reality Check* program and a 10% increase in their median score.

Frequency distributions were calculated for each question. The ten financial knowledge questions from the pretest and posttest frequencies, percent, and percentage change in financial knowledge are presented in Table 8. The top three questions that reported the highest knowledge score changes were "which of the services below are considered a necessary expense when living on your own?" (34.2%); "assuming that life insurance is a necessity, if each of the following persons had the same amount of take home pay, which would need the greatest amount of life insurance?" (29%); and "what is likely to happen, if an individual fails to make all agreed payments on a vehicle" (23.6%). The correct responses to these questions were c) electricity, water, and/or gas services; a) a young single woman with two young children; and b) repossession.

As reported in Table 8, the top three questions with the lowest financial knowledge score changes were as follows: 1) Question 9 asked, "Which of the following instruments is not

typically associated with spending? The correct response to this question was b) Certificate of deposit (4.8%). 2) Question 12 asked, “When something happens in life that is not planned, it is important to have a _____. The correct answer to this question was a. Emergency fund (7.6%). 3) Question 15 asked “When writing in a checkbook ledger, it is important to keep up with the following.” The correct answer was d) All of the above (7.8%) was the correct answer to this question).

Over all, participants’ financial knowledge scores increased from the pretest to the posttest for the remainder of the questions. Question 10 asked, “Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay?” The correct answer was c. Federal income tax, social security and Medicare contributions (35.7% to 44.7%). Question 11inquired “Which of the services below are considered a necessary expense when living on your own?" The correct response was c) Electricity, water, and/or gas services (46.6% to 80.8%). Question 13 asked, “Which insurance is most beneficial to have for making visits to the doctor’s office?” The answer a) Medical Insurance was correct (82.6% to 90.9%). Question 14inquired “Assuming that life insurance is a necessity, if each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?” The correct response was c) a Young single woman with two young children (73.7%).

In addition, Question 16 asked, “What is likely to happen, if an individual fails to make all agreed payments on a vehicle?” The correct answer was b) Repossession (59.5% to 83.1%). Question 17inquired, “All the following are TRUE about credit cards except _____.” The correct response was b) Anyone can have a credit card regardless of age (65.5% to 82.8%). Question18 gave a situation about “Don and Bill work together in the finance department of the

same company and earn the same pay. Bill spends his free time taking work-related classes to improve his computer skills; while Don spends his free time socializing with friends and working out at a fitness center. The question asked was "After five years, what is likely to be true?" The correct response was c) Bill will make more because he is more valuable to his company (61.7 % to 75.7%). Further analysis was conducted to see where and if there were any significant differences in the noted increase changes in the financial knowledge scores.

Table 9

Frequencies and Percentage Change of Pretest and Posttest Knowledge Questions Scores

Financial Knowledge Questions	*N*	% Correct	% Change
9. Which of the following instruments is not typically associated with spending? a) Debit Card b) Certificate of deposit c) Cash d) Credit Card			
Before	346	87.4	+ 4.8
After	365	92.2	
10. Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay? a) Social security and Medicare contributions b) Federal income tax, property tax, and Medicare and social security contributions c) Federal income tax, social security and Medicare contributions d) Federal income tax, sales tax, and social security contribution			
Before	141	35.7	+ 9
After	176	44.7	
11. Which of the services below are considered a necessary expense when living on your own? a) Telephone and cable services b) Electricity, water, and/or gas services c) Internet, and ADT security services d) All of the above			
Before	184	46.6	+ 34.2
After	319	80.8	

12. When something happens in life that is not planned, it is important to have a _____. a) Emergency Fund b) Mutual Fund c) Trust Fund d) General Fund			
Before	343	86.6	+ 7.6
After	373	94.2	
13. Which insurance is most beneficial to have for making visit to the doctor's office? a) Medical Insurance b) Mortgage Insurance c) Life Insurance d) None of the above			
Before	327	82.6	+ 8.3
After	360	90.9	
14. Assuming that life insurance is a necessity , who would need the greatest amount of life insurance? a) An elderly retired man, with a wife who is also retired b) A young married man without children c) A young single woman with two young children d) A young single woman without children			
Before	176	44.7	+ 29
After	292	73.7	
15. When writing in a checkbook ledger, it is important to keep up with the following… a) Balance b) Date c) Transaction name d) All of the above			
Before	313	79.0	+ 7.8
After	343	86.8	
16. What is likely to happen, if an individual fails to make all agreed payments on a vehicle? a) Foreclosure b) Repossession c) Incarceration d) All of the above			
Before	235	59.5	+ 23.6
After	329	83.1	
17. All the following are TRUE about credit cards except ___. a) You have to pay on credit cards b) Anyone can have a credit card regardless of age c) Credit card users have to pay late fees if they do not pay on time d) Some credit cards have an annual fee			
Before	258	65.5	+ 17.3
After	328	82.8	

18. Don and Bill work together in the finance department of the same company and earn the same pay. Bill spends his free time taking work-related classes to improve his computer skills while Don spends his free time socializing with friends and working out at a fitness center. After five years, what is likely to be true? a) Don will make more because he is more social. b) Don will make more because Bill is likely to be laid off. c) Bill will make more because he is more valuable to his company. d) Don and Bill will continue to make the same money.			
Before	243	61.7	+ 14.0
After	299	75.7	

Note: The correct answers are highlighted.

A paired *t*-test was conducted to test for differences before and after the *Reality Check* program to explore for possible significant differences in the scores of Financial Knowledge Before and Financial Knowledge After the program. The result of the paired *t*- test indicate that there was an overall significant difference in the before mean scores (M=65.0, SD=21.0) and after scores (M=80.0, SD=18.0); t (395)= -15.51, p<.001. These results suggest that there was a change in the before and after knowledge test scores (see Table 10). Specifically, the findings show that participant's scores from the post-test were higher than the pretest. Cohen's d and the effect-size correlation were calculated using the mean and standard deviation values to estimate the effect of the size of the two groups. Cohen's d was calculated as 0.767, a medium effect size. This indicates that the *Reality Check* program has a medium but significant effect on participant's financial knowledge.

Table 10

Paired t-test Comparison of Financial Knowledge Pre-test and Post-test Items Means and Standard Deviations

Financial Knowledge Statements	$\bar{X}$	*SD*	*t*	*P*
9. Which of the following instruments is not typically associated with spending? a) Debit Card b) Certificate of deposit c) Cash d) Credit Card				
Before	.87	.33	-2.27	.024
After	.92	.27		
10. Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay? a) Social security and Medicare contributions b) Federal income tax, property tax, and Medicare and social security contributions c) Federal income tax, social security and Medicare contributions d) Federal income tax, sales tax, and social security contribution				
Before	.36	.48	-2.94	.004
After	.45	.50		
11. Which of the services below are considered a necessary expense when living on your own? a) Telephone and cable services b) Electricity, water, and/or gas services c) Internet, and ADT security services d) All of the above				
Before	.47	.50	-12.74	.000
After	.81	.40		
12. When something happens in life that is not planned, it is important to have a _____. a) Emergency Fund b) Mutual Fund c) Trust Fund d) General Fund				
Before	.87	.34	-4.34	.000
After	.94	.23		
13. Which insurance is most beneficial to have for making visit to the doctor's office? a) Medical Insurance b) Mortgage Insurance c) Life Insurance d) None of the above				
Before	.83	.38	4.05	.000
After	.91	.29		

14. Assuming that life insurance is a necessity, if each of the following persons had the same amount of take home pay, would need the greatest amount of life insurance? a) An elderly retired man, with a wife who is also retired b) A young married man without children c) A young single woman with two young children d) A young single woman without children				
Before	.45	.50	-10.10	.000
After	.74	.44		
15. When writing in a checkbook ledger, it is important to keep up with the following. a) Balance b) Date c) Transaction name d) All of the above				
Before	.79	.41	-3.74	.000
After	.87	.34		
16. What is likely to happen, if an individual fails to make all agreed payments on a vehicle? a) Foreclosure b) Repossession c) Incarceration d) All of the above				
Before	.59	.49	-9.43	.000
After	.83	.38		
17. All the following are TRUE about credit cards except ___. a) You have to pay on credit cards b) Anyone can have a credit card regardless of age c) Credit card users have to pay late fees if they do not pay on time d) Some credit cards have an annual fee				
Before	.65	.48	-6.65	.000
After	.83	.38		
18. Don and Bill work together in the finance department of the same company and earn the same pay…….. After five years, what is likely to be true? a) Don will make more because he is more social. b) Don will make more because Bill is likely to be laid off. c) Bill will make more because he is more valuable to his company. d) Don and Bill will continue to make the same money.				
Before	.62	.49	-5.03	.000
After	.76	.43		

KnowPreOv-KnowPosOv				
Before	.65	.21	-15.51	.000
After	.80	.17		

Note: *p <.001.

Research Question 3

What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

Eight questions from the post-test focused on participant's perception of the *Reality Check* program. Frequency distributions were calculated for each question. The frequency of student's perception of the *Reality Check* program is presented in Table 11.

Participant's perceptions after the program were determined by combining responses to "agree," and "definitely agree." The top three perceptions of the *Reality Check* program that participants reported to be what they thought most highly of after the program included the *Reality Check* program is beneficial to participants and prepares them for the real world 372 (94.0%); the *Reality Check* program can improve students financial management skills 365 (92.4%); and the *Reality Check* program has taught me how to set SMART goals 359 (90.7%).

Table 11

Frequency Table of Perceptions of the Reality Check Program

Perception Questions		*1*		*2*		*3*		*4*		*5*		*4+5*	
Variable		Definitely Disagree		Disagree		Neither Disagree nor Agree		Agree		Definitely Agree		Combined	
		N	%	N	%	N	%	N	%	N	%	N	%
19. RC is beneficial….	After	6	1.5	5	1.3	13	3.3	159	40.2	213	53.8	372	94.0
20. RC has taught me how to set SMART financial goals.	After	8	2.0	5	1.3	24	6.1	161	40.7	198	50.0	359	90.7
21. RC can improve students' financial management skills.	After	7	1.8	2	.5	21	5.3	185	46.8	180	45.6	365	92.4
22. RC helped me to see the relationship between education and career ….	After	7	1.8	8	2.0	40	10.1	160	40.4	181	45.7	341	86.1
23. RC influences the ability to manage (budget) money.	After	10	2.5	6	1.5	27	6.8	154	39.0	198	50.1	352	89.1
24. All middle and high school students should be required to go through a Reality Check program.	After	11	2.8	9	2.3	44	11.1	129	32.6	203	51.3	332	83.9
25. I feel more confident when making financial decisions.	After	10	2.5	5	1.3	37	9.4	170	43.0	173	43.8	343	86.8
26. I would recommend the Reality Check program to other teens…….	After	9	2.3	5	1.3	35	8.8	140	35.4	207	52.3	347	87.7

Note: See Appendix C for complete questions.

Question 3 Race/Ethnicity Variables. A one-way analysis of variance was conducted to compare the effect of race (independent variable) on participant's perception (dependent variable) of

Reality Check. Analysis of variance results of the comparisons of perception of *Reality Check* items means and standard deviations by race are presented in Table 12. The one-way ANOVA showed that race had a significant effect on the perception of students recommending the *Reality Check* program to other teens F(2,393)=3.68, p=.02. There were differences in mean scores based on student's race. The results of a post-hoc multiple comparisons Scheffe' test revealed that African Americans and other Races (Alaskan/American Indian, Asian/European American, Hawaiian/Pacific Islander, and Two or more race ethnicity and Other) participants had an significant effect on participants perception of recommending the *Reality Check* program to other teens. Fewer African Americans (*M*=1.59, *SD*=.82) than Other Races (*M*=1.98, SD=1.24) plan to recommend the *Reality Check* program to other teens. No other specific post-hoc contrasts were significant.

Table 12

One-Way ANOVA Comparison of Perception of Reality Check (RC) Items Means and Standard Deviations by Race

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	2.26	2	1.13	1.99	.13
	Within Groups	223.04	393	.57		
	Total	225.29	395			
20. RC has taught me how to set SMART financial goals.	Between Group	3.93	2	1.97	2.97	.05
	Within Groups	260.57	393	.67		
	Total	264.51	395			
21. RC can improve students' financial management skills.	Between Group	.43	2	.21	.37	.70
	Within Groups	226.12	392	.58		
	Total	226.54	394			
22. RC helped me to see the relationship between education and career……	Between Group	2.28	2	1.14	1.57	.21
	Within Groups	286.41	393	.73		
	Total	288.69	395			

23. RC influences the ability to manage (budget) money.	Between Group	.33	2	.17	.22	.80
	Within Groups	296.54	392	.76		
	Total	296.87	394			
24. All middle and high school students should be required to go through a RC program.	Between Group	.46	2	.23	.26	.76
	Within Groups	352.09	393	.90		
	Total	352.55	395			
25. I feel confident when making financial decisions.	Between Group	2.80	2	1.40	1.87	.16
	Within Groups	293.87	392	.75		
	Total	296.67	394			
26. I would recommend the RC program to other ……..	Between Group	5.46	2	2.73	3.68	.02*
	Within Groups	291.52	393	.74		
	Total	296.98	395			

*p<.05. See Appendix C for complete questions.

Question 3 Gender Variable. A one-way analysis of variance was conducted to compare the effect of gender (independent variable) on participant's perception (dependent variable) of *Reality Check*. The one-way ANOVA showed that gender had a significant effect on the perception of students recommending the *Reality Check* program to other teens F(1,393)=7.24, p=.01. There were differences in mean scores based on students' gender. More males have plans (*M*=1.80, *SD*=.97) than females (*M*=1.56, *SD*=.77) to recommend the *Reality Check* program to other teens. No other specific post-hoc contrasts were significant. The effect between male and female significantly differs (see Table 13).

Table 13

One-Way ANOVA Comparison of Perception of Reality Check Items Means and Standard Deviations by Gender

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	.41	1	.41	.72	.40
	Within Groups	224.6	393	.57		
	Total	225.10	394			
20. RC has taught me how to set SMART financial goals.	Between Group	.15	1	.15	.23	.63
	Within Groups	264.23	393	.67		
	Total	264.38	394			
21. RC can improve students' financial management skills.	Between Group	.21	1	.21	.36	.55
	Within Groups	226.22	392	.58		
	Total	226.43	393			
22. RC helped me to see the relationship between education and career……	Between Group	.62	1	.62	.84	.36
	Within Groups	288.00	393	.73		
	Total	288.62	394			
23. RC influences the ability to manage (budget) money.	Between Group	.30	1	.30	.39	.53
	Within Groups	296.47	392	.76		
	Total	296.76	393			
24. All middle and high school students should be required to go through a RC program.	Between Group	.06	1	.06	.07	.80
	Within Groups	352.41	393	.90		
	Total	352.47	394			
25. I feel confident when making financial decisions.	Between Group	.05	1	.05	.07	.80
	Within Groups	296.56	392	.76		
	Total	296.61	393			
26. I would recommend the RC program to other ……..	Between Group	5.37	1	5.37	7.24	.01*
	Within Groups	291.49	393	.74		
	Total	296.86	394			

*p < .05 See Appendix C for complete questions.

Question 3 Age. A one-way analysis of variance was conducted to compare the effect of age (independent variable) on participant's perception (dependent variable) of *Reality Check*. The one-way ANOVA showed that there was no difference in mean scores based on student's age as

shown in Table 14. Post hoc tests were not appropriate because several groups had less than three individuals in a group.

Table 14

One-Way ANOVA Comparison of Perception of Reality Check Items Means and Standard Deviations by Age

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	2.17	3	.73	1.27	.28
	Within Groups	222.61	390	.57		
	Total	224.78	393			
20. RC has taught me how to set SMART financial goals.	Between Group	4.23	3	1.41	2.12	.10
	Within Groups	259.73	390	.67		
	Total	263.96	393			
21. RC can improve students' financial management skills.	Between Group	1.34	3	.45	.77	.51
	Within Groups	224.65	389	.58		
	Total	226.00	392			
22. RC helped me to see the relationship between education and career……	Between Group	4.63	3	1.54	2.12	.10
	Within Groups	283.44	390	.73		
	Total	288.07	393			
23. RC influences the ability to manage (budget) money.	Between Group	.20	3	.07	.09	.97
	Within Groups	296.12	389	.76		
	Total	296.31	392			
24. All middle and high school students should be required to go through a RC program.	Between Group	5.69	3	1.90	2.14	.10
	Within Groups	346.25	390	.89		
	Total	351.94	393			
25. I feel confident when making financial decisions.	Between Group	1.54	3	.51	.68	.57
	Within Groups	294.49	389	.76		
	Total	296.04	392			
26. I would recommend the RC program to other ……..	Between Group	1.33	3	.44	.58	.63
	Within Groups	295.10	390	.76		
	Total	296.43	393			

*p <.05. See Appendix C for complete questions.

Question 3 Grade Level. A one-way analysis of variance was conducted to compare the effect of grade level (independent variable) on participant's perception (dependent variable) of *Reality Check*. The analysis of variance results of the comparison of perception of *Reality Check* items

means and standard deviations by grade level are presented in Table 15. The one-way ANOVA showed that grade level had a significant effect on students perception of feeling that the *Reality Check* program helped them to see the relationship between education and career options F(2,392)=3.87, p=.02. There were differences in mean scores based on student's grade level. The results of a post-hoc multiple comparisons Scheffe' test indicated that Grades 9 and 10, as well as Grades 11 and 12 had a significant effect on the participants perception of the *Reality Check* program helping students to see the relationship between education and career choices. Grades 9 and 10 (*M*=1.84, *SD*=.89) had a higher mean than Grades 11 and 12 (*M*=1.59, *SD*=.84) for the *Reality Check* program helping them to see the relationship between education and career choices. This result indicates that more Grades 9 and 10 students than Grades 11 and 12 students felt that the *Reality Check* program helped them to see the relationship between education and career options. No other specific post-hoc contrasts were significant.

Table 15

One-Way ANOVA Comparison of Perception of Reality Check Items Means and Standard Deviations by Grade Level

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	1.09	2	.54	.95	.39
	Within Groups	223.88	392	.57		
	Total	224.97	394			
20. RC has taught me how to set SMART financial goals.	Between Group	1.09	2	.55	.81	.45
	Within Groups	263.00	392	.67		
	Total	264.09	394			
21. RC can improve students' financial management skills.	Between Group	.23	2	.12	.20	.82
	Within Groups	225.87	391	.58		
	Total	226.10	393			
22. RC helped me to see the relationship between education and career……	Between Group	5.58	2	2.79	3.87	.02*
	Within Groups	282.56	392	.72		
	Total	288.14	394			

23. RC influences the ability to manage (budget) money.	Between Group	.10	2	.05	.06	.94
	Within Groups	296.32	391	.76		
	Total	296.42	393			
24. All middle and high school students should be required to go through a RC program.	Between Group	4.16	2	2.08	2.34	.10
	Within Groups	347.86	392	.89		
	Total	352.02	394			
25. I feel confident when making financial decisions.	Between Group	2.50	2	1.25	1.66	.19
	Within Groups	293.60	391	.75		
	Total	296.09	393			
26. I would recommend the RC program to other ……..	Between Group	1.08	2	.54	.72	.50
	Within Groups	295.46	392	.75		
	Total	296.54	394			

*p <.05. See Appendix C for complete questions.

Question 3 Household Type. A one-way analysis of variance was conducted to compare the effect of household type (independent variable) on participant's perception (dependent variable) of *Reality Check*. The one-way ANOVA showed that there was no difference in mean scores based on students' household type (see Table 16).

Table 16

One-Way ANOVA Comparison of Perception of Reality Check Items Means and Standard Deviations by Family Household Type

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	.20	2	.10	.17	.84
	Within Groups	224.78	392	.57		
	Total	224.97	394			
20. RC has taught me how to set SMART financial goals.	Between Group	.10	2	.05	.07	.93
	Within Groups	263.99	392	.67		
	Total	264.09	394			
21. RC can improve students' financial management skills.	Between Group	.10	2	.50	.08	.92
	Within Groups	226.01	391	.58		
	Total	226.10	393			
22. RC helped me to see the relationship between education and career……	Between Group	.10	2	.50	.07	.94
	Within Groups	288.04	392	.74		
	Total	288.14	394			
23. RC influences the ability to manage (budget) money.	Between Group	2.60	2	1.30	1.73	.18
	Within Groups	293.82	391	.75		
	Total	296.42	393			
24. All middle and high school students should be required to go through a RC program.	Between Group	.25	2	.12	.14	.87
	Within Groups	351.77	392	.90		
	Total	352.02	394			
25. I feel confident when making financial decisions.	Between Group	.05	2	.03	.035	.97
	Within Groups	296.04	391	.76		
	Total	296.09	393			
26. I would recommend the RC program to other ……..	Between Group	.14	2	.07	.09	.91
	Within Groups	296.41	392	.76		
	Total	296.54	394			

*p <.05. See Appendix C for complete questions.

Question 3 Home Location. A one-way analysis of variance was conducted to compare the effect of home location (independent variable) on participant's perception (dependent variable) of *Reality Check*. The analysis of variance results of the comparison of perception of *Reality Check* items means and standard deviations by home location is presented in Table 17. The one-way ANOVA showed that home location had a significant effect on participants perception that the

Reality Check program can improve financial management skills F(2,391)=4.14, p=.02. There were differences in mean scores based on student's home location. The results of a post-hoc Scheffe' test indicated that students who lived on a farm and in a rural or town area with less than 10,000 population or in a town with 10,000 – 50,000 population had less of an effect on participant's perception that the *Reality Check* program can improve financial management skills. Farm and rural/town areas with less than 10,000 population and town with 10,000 – 50,000 population did not significantly differ. Participants who lived in a town with 10,000 – 50,000 population (*M*=1.61, *SD*=.72) had a lower mean than participants who lived in a suburb or city with over 50,000 population (*M*=1.96, *SD*=1.00). This indicates that participants who lived in a town with 10,000 – 50,000 population did not feel as strong as participants who lived in suburb or city with over 50,000 population that the *Reality Check* program can improve their financial management skills. No other specific post-hoc contrasts were significant.

Table 17

One-Way ANOVA Comparison of Perception of Reality Check Items
Means and Standard Deviations by Home Location

Variables	Source	*SS*	*df*	*MS*	*F*	*p*
19. RC is beneficial...	Between Group	2.30	2	1.15	2.02	.13
	Within Groups	222.67	392	.57		
	Total	224.97	394			
20. RC has taught me how to set SMART financial goals.	Between Group	.79	2	.39	.58	.56
	Within Groups	263.30	392	.67		
	Total	264.09	394			
21. RC can improve students' financial management skills.	Between Group	4.68	2	2.34	4.14	.02*
	Within Groups	221.42	391	.57		
	Total	226.10	393			
22. RC helped me to see the relationship between education and career……	Between Group	.44	2	.22	.30	.74
	Within Groups	287.70	392	.74		
	Total	288.14	394			

23. RC influences the ability to manage (budget) money.	Between Group	.23	2	.12	.15	.86
	Within Groups	296.19	391	.76		
	Total	296.42	393			
24. All middle and high school students should be required to go through a RC program.	Between Group	1.39	2	.69	.77	.46
	Within Groups	350.63	392	.89		
	Total	352.02	394			
25. I feel confident when making financial decisions.	Between Group	3.10	2	1.55	2.07	.13
	Within Groups	293.00	391	.75		
	Total	296.09	393			
26. I would recommend the RC program to other ……..	Between Group	2.57	2	1.2	1.71	.18
	Within Groups	293.97	3923	8		
	Total	296.54	94	.75		

*p <.05. See Appendix C for complete questions.

An open-ended question asked students to list one or more things they would do as a result of participating in the *Reality Check* program. Of the *N*= 396 participants who participated in the research, 281 (71.0%) students provided responses to this question. Student responses were examined using open-coding and revealed themes that were narrowed down to topics relating to managing money/budgeting/tracking money, deciding on needs vs. wants, saving money, making better financial decisions, plan spending/spend more wisely/save money, compare prices, goal setting, taking education more serious, thinking about employment, discuss money management with family, shopping wisely, and other. All similar responses were combined into similar categories. The majority 73 (26%) of the participants said as a result of participating in the *Reality Check* program they would manage, budget, or track their spending. Also, as a result of participating in the *Reality Check* program, participants listed other themes and the researcher rated each set of themes by frequency that relates to the following topics such as 61 (21.7%) saving money, 49 (17.4%) deciding on needs vs. wants, 34 (12.1%) making better financial decisions, 25 (8.8%) planning spending/ spend more wisely/saving money, 15 (5.3%) taking education more serious, 9 (3.2%) thinking about employment, 6 (2.1%) comparing prices, 4 (1.4%) discuss money management with family, 3 (1%) other, 2 (.7%) goal setting, and 1 (.3%)

shopping wisely. Table 18 displays an abbreviated listing of the different themes generated and data to support each theme. See Appendix E for the full listing of each individual response from participants.

Table 18

Things Students Listed They Would Do As a Result of Participating in the Reality Check Program

Themes Generated	***Data to Support Themes***	***N***	***%***
Managing money/budgeting/tracking expenses	"Talk to my parents about money managing money and to help me with it." "I will start to plan out what I do with my money and make a budget" "I'm going to start tracking my expenses." "Think about a pie when I think about dividing my money out." "Track my expenses and tell my older brother what I've learned in all two days." "I will track my expenses and watch how I spend my money." "When I get a job, I will budget my money wisely."	73	26
Deciding on needs vs. wants	"I will now think and ask if I really need this before I buy it." "Use good decision making when choosing what purchases I need and don't need." "Limit my spending to what I need." "Purchase what I need first and then what I need" "I will get the things I need then if I have extra money, then "I will get my wants." "I will make my decisions wisely and always put my needs before my wants." "I will decide if one purchase really has priority over another."	49	17.4
Saving Money	"Learn how to save money." "I will start saving more because I shop a lot and need to save so I won't be broke." "I will now start to save money while I don't have any bills and put that money into a savings account." "Save my money and don't buy crazy things" "Save my money wisely" "I will start saving money more often." "From now on, when I get my allowance, I will save 5.00 for my future."	61	21.7

Themes Generated	*Data to Support Themes*	*N*	*%*
Make better financial decisions	"I'll pay more attention to things I buy." "Make a list of things I want to buy and balance my money out." "I would talk to all my friends so they would understand the importance of paying bills." "Make sure I think twice about what I buy" "There is a lot more to pay than just electricity, water, and gas for living on your own." "Be smart about purchasing different insurances." "Purchase things that are not all name brand or fancy."	34	12.1
Plan spending/spend more wisely/save money	"I'll buy cheaper things to save more money." "Start spending wisely" "Pay more attention to how I spend" "I now know how to spend money more responsibly." "I am more confident with my spending." "I will think before spending now." "I will plan/ think about how to spend my money."	25	8.8
Compare Prices	"I will compare prices when I buy stuff." "I will research more on prices." "I will research more on prices." "I will compare prices " "Compare prices" "I will compare prices."	6	2.1
Goal Setting	"Set a goals for myself" "I will set more goals on how to use and spend my money."	2	.7
Taking Education More Serious	"I'm going to take school seriously." "I definitely plan to attend college." "I am going to keep working hard in school so I can get a good education." "I plan to finish high school go to college to get a good paying job." "I plan to graduate and not be a single mom and have money to get a house." "I will take a finance class to help me learn more about this." "Don't drop out of school."	15	5.3
Thinking about Employment	"Marry someone with a job." "Get a better job and help around the house." "Start looking for a job." "I will think about careers." "When I get older, get a job that makes a lot more money." "I will get a job and keep my family." "Work, and help with bills"	9	3.2

Themes Generated	***Data to Support Themes***	***N***	***%***
Discuss Money Management with family	"Discuss money management with my parents." "I will start talking to my family about managing the money we spend." "Talk to my family about money management." "Talk to my parents about helping me set up a checking account."	4	1.4
Shopping wisely	"I will shop more wisely."	1	.3
Other	"Do not have a wife." "Get a good evaluation" "All of the above"	3	1

Chapter 5

Summary, Implications, Recommendations, and Conclusions

Introduction

This chapter summarize each research question is based on the results of the data analysis along with a description of the findings. It will present implications of this study, recommendations for future studies, and the conclusion.

Purpose of the Study

The purpose of this study was to measure the effectiveness of the Alabama Cooperative Extension System's Youth *Reality Check* financial education program. One of the Alabama Cooperative Extension System's goals is to increase financial literacy. In many cases, interactive financial education programs have a mixed history in relations to their impact on increasing knowledge and improving financial behavior of participants. The study examined changes in financial behavior, financial knowledge, and participant's perception of the overall program after experiencing the *Reality Check* simulation. This study identified planned changes in financial behaviors; financial knowledge gained by participants, and effects of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of the *Reality Check* program.

In particular, this study answered the question of whether Alabama Extension's *Reality Check* financial education program is making an impact on youth by changing financial behaviors and improving financial knowledge. This study filled in some of the gaps found in financial literacy research to aid Alabama Cooperative Extension System and stakeholders

interested in expanding the scope of the *Reality Check* and other personal finance programs offered in schools and to support legislative with the mandate of personal financial education in the state of Alabama. It can also help to improve program effectiveness, identify best practices, and lead to policy changes specifically for requiring all schools to offer financial education.

Today's youth are making financial mistakes by spending too much and saving too little Norvilitis et al. (2006). Struggling for economic prosperity is difficult, and it is especially hard for young people who have never learned about how to achieve financial security (Jump$tart Coalition for Personal Financial Literacy, 2009). There is a need to be concerned about youth financial knowledge based on the trends reported in various studies (Danes 1994, Duguay, 2006; Jones, 2005; Martin & Oliva, 2001; Narvilite, et al., 2006; O'Neil, 1992; Peng, Bartholomue, Fox, & Cravener, 2007). Financial knowledge and the financial behavior of youth are imperative because early behavior patterns create a foundation for future financial conduct and financial security, especially with the use of credit cards (American Savings Education Council (ASEC), n.d. 2001; Martin & Oliva, 2001; O'Neill, 1992) especially with the use credit of cards. As reported, one-third of high school seniors already use a credit card and have credit card debt, and continues to acquire other types of debt which exposes the lack of understanding of the long-term consequences of these debts (Jump$tart Coalition for Personal Financial Literacy, 2003; U.S. General Accounting Office, 2001; Wisconsin Policy Research Institute, 2003; Yankelovich Partners, 2001).

Research Questions

The following questions were used in this study:

Q1. What are the differences, if any, in students' self-reported financial behavior before and after participating in *Reality Check*?

RQ2. What are the differences, if any, among participants' financial knowledge before and after participating in *Reality Check*?

RQ3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*?

Summary of Research Questions

Three research questions were used in this study. A pre-test and post-test was conducted before and after the *Reality Check* program to measure changes in both intended financial behavior, and changes in financial knowledge. The perception of participants was also measured using a post-test. A total of *N*=396 middle and high school students from eight counties in Alabama participated in the study.

Summary of Research Question 1. The question was "what are the differences, if any, in students' self-reported financial behavior before and after participating in the *Reality Check*" included a financial behavioral scale. Descriptive analysis was conducted utilizing participants pre-test and post-test financial behavior scores. A paired sample t-test was run using the Financial Behavior before and after scales to determine if any differences existed. The financial behavior pre-test and post-test score is an independent variable measured against the dependent variable of self-reported financial behavior. There were eight 5-point Likert scale behavior questions. The scale provided the respondents with the following ratings: 1) never, 2) almost never, 3) often, 4) almost always, and 5) always. Responses were analyzed using descriptive statistics with SPSS software providing the outputs.

Research Question 1 focused on the differences, if any, in students' self-reported financial behavior before and after participating in the *Reality Check* program. Participants rated eight different financial behavioral practices. These practices included tracking expenses,

comparing prices, setting money aside for future needs/wants, spending plan/budget, writing goals for managing money, saving money on a regular basis, trying to buy items needed first, and then items I wanted, and discussing money management family. These questions related to financial education taught as part of the *Reality Check* program.

Based on the findings from this study, the *Reality Check* program provided an adequate incentive for participants to improve the frequency with which they engaged in various financial behavior practices. The frequency of all eight practices increased whereas the number of students reporting “never” or “almost never” decreased after the program. Participants reported that after the program, reporting “often” or “almost always” or “always,” the financial behaviors they plan to practice the most in the future included buying items needed first, then items wanted; setting money aside for future needs or wants, and saving money on a regular basis.

Participants that responded to either choices of “never” or “almost never,” reported that before the program, the habits they practiced the least included writing goals for managing money, discussing money with family and using a spending plan or budget. There was a change in responses to discussing money management with family, writing goals for managing money, and using a spending plan or budget. The decrease in these scores was positive because it indicates a change in the mind of participants because after the program more participants possibly decided to start these financial practices. In relation to other financial practices, these three activities of writing goals for managing money, discussing money with family and using a spending plan or budget are probably practiced the least before the program because they are more difficult for youth to apply in real-life situations if they are not something practiced on a regular basis. Discussing money management with family is a conversation that would be difficult if youth do not have a job or feel a need to talk about money. This could also be a

barrier for young people even if they have the skills needed to write goals for managing their money and using a spending plan or budget because it is possible that they can still have difficulty putting the concepts into practice. Having an understanding but not the opportunity or means to apply the actual practice may be a missed opportunity for youth to implement these financial practices into their real-life situations.

Overall, financial behaviors that increased the most from what participants reported as doing "often," "almost always," and "always" before the program compared to what they plan to do after the program included writing goals for managing money which increased from 36.2% to 84.7%,a change of (48.5%). Using a spending plan increased from 41.1% to 89.1% yielding a change of (48.0%). Discussing money management with family increased from 37.4% to 79.6%, which was a change of (42.2%). These could have been the most common practices that students found more useful in their household, school, or at work and find it easier to adapt and use. Perhaps, the *Reality Check* program has given more students a real-life example and application to reinforce and motivate them to engage in these practices on a regular basis. However, the overall goal is to see all students learn, and apply sound financial practices in their personal lives to make them better consumers.

Findings from this study suggest that there was a positive change in participants' financial behavior test scores. Over three-fourths of participants indicated intent to change in every financial behavior category listed on the evaluation. Specifically, findings show that participant scores increased on the post-test demonstrating that they plan to practice better financial behaviors after participating in the *Reality Check* program. The data analysis results from the study also indicate there is a statistically significant difference between the pre and post scores. In addition, another important finding is the very large effect size 1.399 which indicates

that the difference between the *Reality Check* pre and post financial behavior scores were not only statistically significant but also had practical significance. Therefore, student participation in the *Reality Check* program influenced participants in some way to change their mind concerning their financial behavior based on these results.

It is reassuring to observe that immediately after participating in the *Reality Check* program, more students reported that they intended to make positive changes "often," "always," or "almost always" in all categories with a response rate of 79% or higher. This is another indication that students are planning to make appropriate changes in their financial behavioral practices.

Summary of Research Question 2. What are the differences, if any, among participants' financial knowledge before and after participating in *Reality Check*? The question was to measure any change in participant's financial knowledge scores. Descriptive analysis was conducted utilizing pre-test and post-test financial knowledge scores. A paired sample t-test was run using the Financial Knowledge before and after questions to determine if any differences existed in the participant's before and after changes in knowledge. The financial knowledge pre-test and post-test score is an independent variable measured against the dependent variable of financial knowledge. There were 10 knowledge multiple choice questions. Responses were analyzed using descriptive statistics with SPSS software providing the outputs.

Due to lack of financial education, youth, young adults, and adults alike make poor financial decisions. Various concerns for the levels of financial literacy in society as a whole has grown significantly in recent years and will become even more important in the future (Fox, Bartholomae & Lee, 2005). Prior studies of high school students consistently found that they are not receiving a good education in personal financial fundamentals and have poor knowledge

(Bakken, 1967; CFA/AMEX, 1991; HSR, 1993; Langrehr, 1979; NAEP, 1979). Mundy (2008) considers that students are the consumers of the future and this is the major reason why it is important to educate young people. In addition, "financial education can help provide students with the building blocks which they will need to make sound financial decisions throughout their lives," (p. 5). Findings from this study show that there was a change in participants before and after financial knowledge test scores. This was evident by 81% of participants receiving a passing score on the post-test after only 56% passed the pre-test. The results of the paired *t*- test indicate that there was an overall significant difference in the knowledge mean scores. Specifically, the findings show that participant's scores from the post-test were higher than the pre-test. In addition, another important finding is the medium effect size (0.767) which indicates that although medium in the change, the difference between the *Reality Check* pre and post knowledge scores were statistically significant and had practical significance. Student participation in the *Reality Check* program increased participants' knowledge, awareness, hands-on experience, and influenced them in positive way.

Summary of Research Question 3. What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of *Reality Check*? The question was included a perception scale. Descriptive analysis was conducted utilizing participants' post-test perception scores. A One-way ANOVA was used to explore whether significant differences between demographics (race, gender, age, grade level, family household type, and home location) exited in participants' perception of *Reality Check*. The demographics are independent variables measured against the dependent variable of participants' perception. The scale included the following ratings: 1) definitely disagree, 2) disagree, 3) neither disagree nor agree, 4) agree, and 5) definitely agree. There were eight 5-point Likert scale perception

questions. Responses were analyzed using descriptive statistics with SPSS software providing the outputs.

Each individual independent variable was correlated with all eight perception questions. When investigating students' perceptions of the *Reality Check* program after their participation in the *Reality Check* program, students' responses were positive with a selection of agree or definitely agree both combined into an "agree" category. 1) 372 (94%) students agree that the *Reality Check* program is beneficial to participants and prepares them for the real world. 2) 359 (90.7%) students agree that the *Reality Check* program has taught them how to set SMART financial goals. 3) 365 (92.4%) students agree that students who participate in a *Reality Check* program can improve their financial management skills. 4) 341 (86.1%) students agree that the *Reality Check* program helped them to see the relationship between education and career options. 5) 352 (89.1%) students agree that the Reality Check program does influence a participant's ability to manage (budget) money. 6) 332 (83.9%) students agree that all middle and high school students should be required to go through a Reality Check program before graduating. 7) 343 (86.8%) students agree that they now feel more confident when making financial decisions. 8) 347 (87.7%) students agree that they would recommend the *Reality Check* program to other teens they know. Overall, the majority of the student participants have a positive experience and impression of the *Reality Check* program.

A one-way analysis of variance ANOVA was conducted to compare the effect of demographics on participants' perception of the Reality Check program. The analysis of variance, one-way ANOVA showed that race, gender, grade, and home location had a significant effect on the students' perception of the *Reality Check* program. There were differences in mean scores based on students' race, gender, grade and home location. A post-hoc multiple

comparison Scheffe' test was used to show where the differences were found for the race, gender, grade and home location. Fewer African Americans than other races plan to recommend the *Reality Check* program to other teens. More males than females plan to recommend the *Reality Check* program to other teens. Grade levels had a significant effect on students' perception of feeling that the *Reality Check* program helped them see the relationship between education and career options. More 9th and 10th grade students felt that the *Reality Check* program helped them see the relationship between education and career choices compared to those students in the 11th and 12th grade levels. Participants who live in a town with (10,000-50,000) population did not feel as strong as those who live in suburb or city with over (50,000) populations that the *Reality Check* program could improve their financial management skills. No other specific post-hoc contrasts were significant for race, gender, grade, and home location. In addition, the one-way analysis of variance ANOVA for age and household did not show any differences in their mean scores.

When asked to list one or more things participants would do as a result of participating in the *Reality Check* program, 281 (71%) of the students gave a wide range of responses that related to all the objectives of the program. The responses were divided into different categories to summarize similar topics. All similar responses were summed and combined. The researcher generated and divided the themes into categories. The following are examples of the themes with an example of a participant's response to what they will do as a result of participating in the *Reality Check* program. Some of the common data reported to support the themes included managing money/budgeting/tracking money ("Track my expenses and watch how I spend my money"), deciding on needs vs. wants ("Decide if a purchase is a need or want"), saving money ("Start saving money instead of spending it all immediately"), making better financial decisions

("I'll pay more attention to things I buy."), plan spending/spend more wisely/save money ("Buy cheaper things to save money"), compare prices ("I will research more on prices."), goal setting ("I will set more goals on how to use and spend my money."), taking education more serious ("I will take a finance class to help me learn more about this."), thinking about employment ("I will think about careers."), discuss money management with family ("Talk to my parents about helping me set up a checking account."), shopping (I will shop more wisely."), and other ("Do not have a wife."). Based on these examples of responses, it is evident that students gained insight and knowledge from participating in the *Reality Check* program and they plan to use or add these financial practices to their daily activities. This also indicates how the program delivery has reached students on different levels to expose and help them make better informed financial management decisions. This will benefit them in the long-run as they will continue to grow and become better consumers.

Overall, these findings suggest that the *Reality Check* curriculum offers financial management subject matters that are most useful and relevant to youth in a way that it may help them develop a habit of using good financial management practices and making sound financial management decisions on a regular basis. This study also provides insight into middle and high school students' understanding and their intent to change their financial behavior. They increased their financial knowledge from participating in the *Reality Check* program. Participants also had a positive perception of the *Reality Check* program and this study adds to the body of research related to financial literacy and society's perception of personal finance.

Implications

Research indicates that highly interactive reality-based courses in money management that provide intense and applied instruction in personal finance are more effective in developing

financially competent teens, and follow-up evaluations show that positive changes tended to persist over time (Mandell, 2001; Varcoe et al. 2002). An integral part of the *Reality Check* experience is simulation. The creation of the real-life experiences help to make youth aware of the money management skills they need to be productive and profitable citizens of society.

It has been documented in previous literature that youth are lacking basic financial literacy skills needed to help them function in society using basic personal finance. Unfortunately, schools and families have fallen short in meeting these basic needs as well. However, there are many opportunities for various community groups who work with youth including churches to meet this need through financial education programming. This research has disclosed numerous vital implications for individuals who work with youth financial literacy programs, particularly *Reality Check*. Based on the findings of this research study, several recommendations should be considered in the future.

1. The results of the study support the continued use of the *Reality Check* program, as it revealed that participants have an intention to use positive financial practices. Participants also increased their understanding of basic financial concepts, and showed increased knowledge of personal finance as a result of participating in the program. This program is one of many researched based programs that is helping students gain the financial skills they need in areas of personal finance as it relates to understanding income, creating a budget, planning spending, planning saving, and setting goals, to name a few, in order to become financially savvy as a young adult.
2. There are implications that follow-up materials should be developed as parts to the *Reality Check* program for schools follow-up sessions. This will aide agents or teachers in the process of challenging students to continue using the financial concepts they learned as

opportunities present themselves to encourage positive financial behavior. These materials would allow youth to continue their financial education beyond the Reality Check program. Educators must understand that not all youth have an interest in learning about personal finance. Relevance will be a key factor in gaining the interest of youth. It is recommended that educators and program leaders demonstrate the connection between *Reality Check* and youth using interconnected examples that have relevance. For example, if students acquire jobs and receive pay checks, educators can implement activities as part of class assignments. This can be done by requiring students to practice tracking expenses, comparing prices when shopping, setting up a budget, writing financial goals, setting money aside for future needs and wants, saving money, discussing money management with their parents and purchase what they need first then what they want. After three months of working, the educator can ask each student to report on these topics based on the guidelines that were set. However, during the three month period, the educators need to make an effort to keep the main financial concepts before students in other small activities. This is also one way to collaborate with parents to get them involved in helping to re-enforce personal finance concepts with their children.

3. The overall purpose of this study was to see if the *Reality Check* program was effective. The results have shown that the program is effective. However, it is important that we began to invest more time and effort into follow-up evaluation to capture specific indicators of whether or not participating in the *Reality Check* program had any lasting effects. Moreover, other measures of this program success need to include a follow-up study with participants, which is important since this study, only measured intended behavior changes.

A three months, or six months follow-up study could show more in-depth impact on the Reality Check program.

Recommendations for Future Research

1. The results of this study offer brand new opportunities for further research. This study should be replicated by Alabama Cooperative Extension in more schools in the state of Alabama to have a larger sample in order to help determine the generalization of these findings.
2. Based on the results of this study, there is confidence in promoting the use of the *Reality Check* curriculum by all schools in Alabama who wish to use the program. It is encouraged for Regional Extension Agents to continue building relationships with schools in their region.
3. *Reality Check* is a popular financial literacy program used with the youth population in Alabama. This program allows the Consumer Science and Personal Finance Regional Extension Agents to position themselves as well-informed, knowledgeable resources that can make financial literacy learning fun through real-life, exciting, active, and hands-on learning experiences. Because it is often a challenge for Cooperative Extension agents to create an initial presence in schools and other community groups, it is recommended in the future to involve teachers more in the program delivery and curriculum development to foster stronger relationships to maintain Extension's representation in the community.
4. Significant time, effort, and funds to cover agents travel are expended to implement the *Reality Check* programs for youth. Based on results from this study, it is recommended that *Reality Check* programs continue to influence students in a positive way. As a way to help off-set some expenses involved with the delivery of the *Reality Check* program, it

is recommended that the agency seek outside grant funding which will help agents to serve more schools and students in addition meeting the requirements of conducting other required Extension programs.

5. Another thing to consider is the locality of the research study and where the *Reality Check* program is implemented. The possibility that differences among private and home schools vs. public schools exist is something to investigate for differences, if any. In addition, other considerations might be variations among students who participate in the *Reality Check* program who have taken a financial management course versus those who have not and have an experimental and controlled group to compare to see if there are any differences in performances. Furthermore, one might also want to study the differences among male responses as compared to female responses.

Conclusions

Consequently, the current problem that needs to be addressed is that we "just don't know if the programs are not working or if we don't understand whether they are working because they are not being evaluated properly" (Hathaway & Khatiwada, 2008, p. 19). However, program evaluations could "help to identify best practices, improve program effectiveness, and lead to policies that help consumers make better decisions" (Hathaway & Khatiwada, 2008).

Based on a study conducted by Hathaway and Khatiwada (2008), interactive, identifiable, and targeted programs tend to be more effective, although "existing research on the effectiveness of financial education programs is incomplete and unconvincing" (p. 19) due to the lack of program evaluations. One major problem is that official state and national standards have not been set for program evaluation, making it a challenge to measure the impact and effectiveness

of programs, which means we cannot determine if our education attempts are truly successful at achieving their goal (Hathaway & Khatiwada, 2008).

Ted Beck, president and CEO of the National Endowment for Financial Education commented that young people today are at risk because many of them lack a good basic grasp on personal finance and money management skills that can last their entire lifetime (Golden, 2006). To limit this risk, we need to support youth in their development towards becoming good consumers by continuing to encourage and deliver financial education programs to help them to have a better understanding of personal finance and prepare them for a secure financial future.

Considering that minimal research is often conducted to identify the intended or long-term behavioral outcomes of financial management programs**,** as a result of this study, overall it revealed that the use of the *Reality Check* program yields positive results with over three-fourths of the participants reporting intended financial behavioral changes. This self-reported data indicated motivation for positive financial behavior changes. Eighty-one percent of participants increased their financial knowledge up from the initial pre-test 56%. It is also evident in this study that the hands-on simulation method of teaching acquires the attention of youths while also increasing their excitement about learning and practicing financial management skills as they learn, connect, and apply the information presented to them. The program is structured to motivate students to have good intentions towards changing their behavior concerning money management, increase their financial knowledge, and cause them to view the *Reality Check* program as something positive for youth overall. The use of the Reality Check program and other curriculums with documented impacts are strongly encouraged. Therefore, the *Reality Check* program accomplished its goal of being effective with this research study. However, it is further recommended that following this study that the program be re-evaluated with a follow-up

evaluation within 3 month or 6 months for long-term effects of the program. I also recommend extra time for the reflection aspect of the curriculum, which is a vital element in the students' learning experience. This will allow the researcher to better assess the participant's understanding of the Reality Check intervention, allow them to express what they learned, and rule out any misconceptions of the program.

Lastly, it is always important to take into consideration any changes that need to be made based on participants' responses. Based on the results, there is a need to get teachers and parents more involved in helping students with financial education to assist with the practice and application of financial literacy concepts and skills taught in the simulation. This will help students to remember what they have learn and help them to transfer the information at the appropriate time into practice.

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Appendix A

Institutional Review Board Documents and Approval Form

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

RESEARCH PROTOCOL REVIEW FORM

For Information or help contact **THE OFFICE OF RESEARCH COMPLIANCE**, 115 Ramsay Hall, Auburn University
Phone: 334-844-5966 **e-mail:** hsubjec@auburn.edu **Web Address:** http://www.auburn.edu/research/vpr/ohs/

Revised 03.26.11 – DO NOT STAPLE, CLIP TOGETHER ONLY. Save a Copy

1. PROPOSED START DATE of STUDY: March/1/2013

PROPOSED REVIEW CATEGORY (Check one): ✓ **FULL BOARD** **EXPEDITED** **EXEMPT**

2. PROJECT TITLE: Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants

3. Theresa Jones — **PRINCIPAL INVESTIGATOR**
Extension Agent — **TITLE**
ACES — **DEPT**
256-509-1063 — **PHONE**
rosscth@aces.edu — **AU E-MAIL**

1820 Kendall Terrace NW Huntsville, Alabama 35816 — **MAILING ADDRESS**
256-532-1581 — **FAX**
ALTERNATE E-MAIL

4. SOURCE OF FUNDING SUPPORT: ✓ Not Applicable ___ Internal ___ External Agency:_____ ☐ Pending ☐ Received

5. LIST ANY CONTRACTORS, SUB-CONTRACTORS, OTHER ENTITIES OR IRBs ASSOCIATED WITH THIS PROJECT:
N/A

6. GENERAL RESEARCH PROJECT CHARACTERISTICS

6A. Mandatory CITI Training

Names of key personnel who have completed CITI:
Theresa Jones ✓ Maria Witte ✓

CITI group completed for this study:
✓ Social/Behavioral ☐ Biomedical

PLEASE ATTACH TO HARD COPY *ALL* CITI CERTIFICATES FOR *EACH* KEY PERSONNEL

6B. Research Methodology

Please check all descriptors that best apply to the research methodology.

Data Source(s): ✓ New Data Existing Data

Will recorded data directly or indirectly identify participants?
Yes ✓ No

Data collection will involve the use of:
Educational Tests (cognitive diagnostic, aptitude, etc.)
Interview / Observation
Physical / Physiological Measures or Specimens (see Section 6E)
✓ Surveys / Questionnaires
Internet / Electronic
Audio / Video / Photos
Private records or files

The Auburn University Institutional Review Board has approved this document for use from 4/11/14 to 4/12/13

RECEIVED MAR 26 2013 Compliance

6C. Participant Information

Please check all descriptors that apply to the participant population.
✓ Males ✓ Females AU students

Vulnerable Populations
Pregnant Women/Fetuses ___ Prisoners
✓ Children and/or Adolescents (under age 19 in AL)

Persons with:
☐ Economic Disadvantages ☐ Physical Disabilities
☐ Educational Disadvantages ☐ Intellectual Disabilities

Do you plan to compensate your participants? ___ Yes ✓ No

6D. Risks to Participants

Please identify all risks that participants might encounter in this research.
✓ Breach of Confidentiality* ✓ Coercion
☐ Deception ☐ Physical
☐ Psychological ☐ Social
☐ None ☐ Other:

*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

Do you need IBC Approval for this study? ✓ **No** ☐ **Yes - BUA #**_____ **Expiration date** _____

FOR OHSR OFFICE USE ONLY

DATE RECEIVED IN OHSR: 3·26·13 **by** GB
DATE OF IRB REVIEW: 4/12/13 **by** CC
DATE OF IRB APPROVAL: _____ **by** _____
COMMENTS:

PROTOCOL # 13·131 EP 1304
APPROVAL CATEGORY: 45 CFR 46.110(7)
INTERVAL FOR CONTINUING REVIEW: 1 year

A. PRINCIPAL INVESTIGATOR'S ASSSURANCES

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
   a. Conducting the project by qualified personnel according to the approved protocol
   b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Human Subjects Research
   c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
   d. Promptly reporting significant adverse events and/or effects to the Office of Human Subjects Research in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise OHSR, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Human Subjects Research before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Theresa Jones	Theresa Jones	Feb 16, 2013
Printed name of Principal Investigator	**Principal Investigator's Signature** (SIGN IN BLUE INK ONLY)	**Date**

B. FACULTY ADVISOR/SPONSOR'S ASSURANCES

1. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
2. I certify that the project will be performed by qualified personnel according to the approved protocol using conventional or experimental methodology.
3. I agree to meet with the investigator on a regular basis to monitor study progress.
4. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
5. I assure that the investigator will promptly report significant adverse events and/or effects to the OHSR in writing within 5 working days of the occurrence.
6. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the OHSR by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.
7. I have read the protocol submitted for this project for content, clarity, and methodology

Dr. Maria Witte	Maria M. Witte	3/22/2013
Printed name of Faculty Advisor / Sponsor	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

C. DEPARTMENT HEAD'S ASSSURANCE

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

Dr. Sherida Dower	Sherida Dower	3/22/2013
Printed name of Department Head	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

2

Office of Research Compliance
115 Ramsay Hall, lower level
Auburn University, AL 36849

Telephone: 334-844-5966
Fax: 334-844-4391
IRBadmin@auburn.edu
IRBsubmit@auburn.edu

December 10, 2013

MEMORANDUM TO: Theresa Jones
Department of Educational Foundations, Leadership and Technology

PROTOCOL TITLE: "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants"

IRB AUTHORIZATION NO: 13-131 EP 1304

APPROVAL DATE: April 12, 2013
EXPIRATION DATE: April 11, 2014

The referenced protocol was approved as "Expedited" by the IRB under 45 CFR 46.110 (7)**:**

> "(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies."

By accepting this approval, you agree to the following:

1. **Changes to your protocol** *must* be approved in advance by submitting a modification request to the IRB. The use of any unauthorized procedures may result in penalties.

2. **Unanticipated problems** involving risk to participants *must* be reported *immediately* to the IRB.

3. A **renewal request** *must* be submitted three weeks before your protocol expires.

4. A **final report** *must* be submitted when you complete your study, along with copies of any consents used.

5. **Expiration –** If you allow your protocol to expire without contacting the IRB, the

protocol will be administratively closed. The project will be suspended and you will need to submit a new protocol to resume your research.

6. You must **use only the approved, stamped version** of your **consent document or information letter.** A copy must be given to participants. Keep any signed copies in a secure campus location for three years after your study ends.

All forms can be found at http://www.auburn.edu/research/vpr/ohs/index.htm. Questions concerning this Board action may be directed to the Office of Research Compliance

Sincerely,

Dr. Christopher Corriea, Chair
Institutional Review Board #2
for the Use of Human Subjects in Research

cc: Dr. Maria Witte

The Auburn University Institutional Review Board has approved this document for use from 4/12/13 to 4/11/14 Protocol # 13-131 EP 1304

AUBURN UNIVERSITY

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

PARENTAL PERMISSION/MINOR CHILD ASSENT
for A Research Study entitled
"Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants"

Your child is invited to participate in a research study to examine the effectiveness of Alabama Cooperative Extension System's youth financial education program, "Reality Check." The research objectives of this project are to answer the following questions: 1) What is the relationship among participants' financial knowledge before and after participating in Reality Check? 2) What are the differences, if any, in students' self-reported financial behavior before and after participating in Reality Check? And 3) What is the relationship between demographics (race, gender, age, grade level, family household type, home location) and perception of Reality Check? The study is being conducted by Theresa Jones, under the direction of Dr. Maria Witte, Associate Professor in the Auburn University Department of Educational Foundations, Leadership and Technology Education.

Your child was selected as a possible participant because he or she is in one of the grades of 7th through 12th and this program will be a part of the in class activities. Since your child is age 18 or younger, we must have your permission to include him/her in the study.

What will be involved if your child participates? If you decide to allow your child to participate in this research study, your child will be asked to fill out a survey before and after participating in the Alabama Cooperative Extension's Reality Check program. Your child's total time commitment will be approximately 20 minutes which requires 10 minutes for the pre-survey and 10 minutes for the post- survey, in addition to going through the actual financial literacy program during the class period. The pre-survey includes 26 questions and the post survey has a total of 27 questions which are all a combination of a series of Likert scale style questions, multiple choice questions, open-ended questions, and closed-ended questions.

Are there any risks or discomforts? There is no anticipated risk from the questions used on the survey. However, general and demographic questions have the potential to make some participants feel uncomfortable. To minimize the possibility of embarrassment, all questions on the survey will be voluntary.

Your child will also learn financial concepts, gain valuable experience in writing checks, paying bills, and making

4036 Haley Center, Auburn, 36849-5221; Telephone: 334 -844-4460:FAX: 334-844 – 3072
www.auburn.edu

daily decisions that all adults must tackle on a monthly basis. Hopefully, your child will understand the relationship between education and a career as well. This research will be a part of the participants learning experience in their classroom.

Parent/Guardian Initials__ __ __

Will you or your child receive compensation for participating? No, there is no compensation for you or your child, however, your child will be able to utilize the information to help him or her in life.

If you (or your child) change your mind about your child's participation, your child can be withdrawn from the study at any time. Your child's participation is completely voluntary. If you choose to withdraw your child, your child's data can be withdrawn as long as it is identifiable. Your decision about whether or not to allow your child to participate or to stop participating will not jeopardize your or your child's future relations with their school, Auburn University, or the Department of Educational Foundations, Leadership and Technology. All Children will be eligible to participate in the Reality Check program even if they do not participate in the research. Participating or not participating in the research will have no impact on the student's grade.

Your child's privacy will be protected. Any information obtained in connection with this study will remain confidential. The data collected will be protected by the researcher. Hard copies of completed surveys will be stored and locked in a secured location at the Madison County Extension Office. Data entered into a spreadsheet to track data collection from different study sites in the regions will be stored on a password protected computer. As an additional safeguard, the computer will be kept in a locked location in the researcher's home. Information obtained through your child's participation may be used to fulfill an educational requirement. It will also be published in a professional journal or presented at a professional meeting.

If you (or your child) have questions about this study, please ask now or contact Theresa Jones at rosscth@aces.edu, or Dr. Maria Witte at wittemm@auburn.edu.

If you have questions about your child's rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or use **irbadmin@aubum.edu**.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH FOR YOUR CHILD TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR CHILD'S SIGNATURE INDICATES HIS/HER WILLINGNESS TO PARTICIPATE.

_____ _____

Parent/Guardian Signature Date Participant's Signature Date

_____ _____

Print Name Print Name

_____

Investigator Obtaining Consent Date

The Auburn University Institutional Review Board has approved this document for use from 4/12/13 to 4/11/14

Protocol # 13-131 EP 1304

Appendix B

Participating Schools Administrator Permission Letters

George W. Long High School

2565 County Road 60
Skipperville, Alabama 36374
•••••
(334) 774-2380
Fax (334) 774-3937

Jason Steed
Principal

Chuck Walker
Assistant Principal

Date: January 29, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at George W. Long High School.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at George W. Long High School. Only students in Mrs. Odessa Jones class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Family and consumer Classes (class subject) instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule.* I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at George w. Long High School.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher, Mrs. Odessa Jones. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (334) 774-2380 or e-mail: jsteed@dalecountyboe.org.

Sincerely,

Jason Steed
George W. Long High School

Lafayette High School

214 1st Avenue S. E.
Lafayette, Alabama 36862
(334) 864-9881
Fax (334) 864-0650

Montray Thompson
Principal

January 29, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at LaFayette High School.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at LaFayette High School. Only students in Mrs. Bell's class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Mathematics instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule*. I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at LaFayette High School.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. Bell. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at 334-864-9881 or e-mail: thompsonm@chambersk12.org.

Sincerely,

Montray Thompson

Lawrence County Center of Technology
179 College Street West
Moulton, Alabama 35650

Telephone
(256) 974-3751

January 30, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at Lawrence County Center of Technology, Moulton, Alabama.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at Lawrence County Center of Technology. Only students in Co-Op and Business (Personal Finance) classes will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Co-Op and Personal Finance instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule*. I expect that this project will end no later

"Preparing Today's Youth For Careers of the Future"

than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at Lawrence County Center of Technology.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher(s) Ms. Billingsley and Mrs. Burden. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at 205-915-7977 (cell), 256-905-2508 (work), or e-mail: tbillingsley@lawrenceal.org.

Sincerely,

Mr. Wade Fleming, Director
Lawrence County Center of Technology

MONROE COUNTY CAREER TECHNICAL CENTER
230 Tiger Drive • Monroeville, Alabama 36460
Phone: (251) 575-4381 • Fax: (251) 575-2017
Edna Richardson, Principal

February 6, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members.

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at Monroe County Career and Technical Center.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at Monroe County Career and Technical Center. Only students in Mrs. Teresa Andrews-Adams class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Family & Consumer Science class instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule*. I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at Monroe County Career and Technical Center.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. Teresa Andrews-Adams.

"Building Careers - Preparing Futures"

Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation. the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (251)-575-4381 or e-mail: erichardson@monroe.k12.al.us.

Sincerely,

Edna Richardson

Edna Richardson, Principal
Monroe County Career and Technical Center

Parker High School

900 4th Street North
Birmingham, Alabama 35204
205-231-2370
Fax: 205-231-2916

Cedric Tatum
Principal

February 7, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at A. H Parker High School.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at A. H. Parker High School. Only students in Mrs. Sherlita Hill-Nunn class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Career Technology class instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule.* I expect that this project will end no later than October 30,

2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at A. H Parker High School.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. Sherlita Hill-Nunn. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (205)-231-2370 or e-mail: ctatum@bhm.k12.al.us.

Sincerely,

Cedric Tatum, Principal
A. H. Parker High School

R. B. HUDSON MIDDLE

Mrs. Logan Searcy, principal

Mr. Keith Davis, asst. principal

1701 Summerfield Road
Selma, AL 36701

Phone: 334-874-1675
Fax: 334-874-1679

February 7, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at R. B. Hudson Middle School.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at R. B. Hudson Middle School. Only students in Mrs. Anne Williamson class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Technology class instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule*. I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at R. B. Hudson Middle School.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. Anne Williamson. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (334)-874-1675 or e-mail: logan.searcy@selmacityschools.org.
mailto:lmcbride@tess.net
Sincerely,

Logan Searcy

Mrs. Logan Searcy, Principal
R. B. Hudson Middle School

Scottsboro High School

"Home of the Wildcats"

25053 John T. Reid Parkway
Scottsboro, Alabama 35768
(256) 218-2000

Mrs. Kathy Hughes, Principal
Mr. Brad Dudley, Assistant
Mrs. Alicia Bell, Assistant

January 31, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members.

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at Scottsboro High School (School Name).

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at Scottsboro High School (School or Tech Center Name). Only students in Mr./Mrs. Sylvia L. Coleman's class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Food and Nutrition Class and Family and Consumer Sciences Classes (class subject) instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule.* I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at Scottsboro High School (School or Tech Center Name).

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. Sylvia Coleman. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (256) 218-2000 or e-mail: khughes@scotsboroschools.net.

Sincerely,

Kathy D. Hughes, Principal

Kathy D. Hughes, Principal
Scottsboro High School

Smiths Station Freshman Center
1150 Lee Road 298
Smiths Station, AL 36877
334-664-4063

Mr. Brad Cook – Principal Mrs. Kelleigh Meredith – Assistant Principal Mrs. Sonja Davis -Counselor

February 14, 2013

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Examining the Effectiveness of Alabama Cooperative Extension System's Youth Financial Education Program: Behavior Changes of Program Participants," presented by Theresa Jones, a graduate student at Auburn University, I have granted permission for the study to be conducted at Smiths Station Freshman Center.

The purpose of the study is to determine the effectiveness of the Alabama Cooperative Extension System's youth financial education program, "Reality Check". Results will show short-term effects of financial behavior changes, changes in knowledge, and participants' perceived benefits of the Reality Check program. This study will provide feedback to Extension's administration to inform them of the financial education program's impact in lives of students. The primary activities will be the Reality Check student orientation on financial topics and the program simulation.

I understand that Mrs. Jones will prepare an information letter for parents and students involved in the study. Mrs. Jones will receive parental/guardian consent for all participants, as permission for students to participate in the study.

Mrs. Jones will collect data at Smiths Station Freshman Center. Only students in Mrs. April Flournoy's class will be eligible to participate after Mrs. Jones has received signed and dated informed consents from each potential participant.

I understand that the Reality Check research will occur for *two days during normal classroom instruction and during students' regularly scheduled Business Technology Applications class instruction. This is a two day activity, with a student orientation on financial topics on day one and the Reality Check simulation on day two. Each activity will last 52 minutes depending if class schedule is on regular periods or blocks schedule.* I expect that this project will end no later than October 30, 2013. Mrs. Jones will *contact* and *recruit* our students and will *collect data* at Smiths Station Freshman Center.

I understand that Mrs. Jones will receive parental/guardian consent for all participants, and has confirmed that she has the cooperation from the classroom teacher Mrs. April Flournoy. Mrs. Jones has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Mrs. Jones will be kept confidential and will be stored *in a locked filing cabinet at the Madison County Alabama Cooperative Extension Office. After five years of the completion of the research and approved dissertation, the data will be burned and shredded.* Mrs. Jones has also agreed to provide to us a copy of the aggregate results from the study.

If the IRB has any concerns about the permission being granted by this letter, please contact me by phone at (334) 664-4063 or e-mail: cook.brad@lee.k12.al.us.

Sincerely,

Dr. Brad Cook, Principal
Smiths Station Freshman Center

Appendix C

Pre-test and Post-test Survey Instrument

REALITY CHECK PARTICIPANT PRE - EVALUATION PART 1
Before Participating in Reality Check

A. Check *the answer in the rows below that best describes* ***your behavior "before"*** *participating in Reality Check.*

No.	Financial Behavior	Never	Almost Never	Often	Almost Always	Always
1.	I track all of my expenses.					
2.	I compare prices when I shopped.					
3.	I set aside money for future needs/wants.					
4.	I use a spending plan/budget.					
5.	I write goals for managing my money.					
6.	I save money on a regular basis.					
7.	I try to buy items I need first, then items I want.					
8.	I discuss money management with my family.					

B. PRE-KNOWLEDGE - *Please circle the correct answer to the questions below.*

9. Which of the following instruments is NOT typically associated with spending?

a) Debit Card
b) Certificate of deposit
c) Cash
d) Credit Card

10. Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay?

a) Social security and Medicare contributions
b) Federal income tax, property tax, and Medicare and social security contributions
c) Federal income tax, social security and Medicare contributions
d) Federal income tax, sales tax, and social security contribution

11. Which of the services below are considered a necessary expense when living on your own?

a) Telephone and cable services
b) Electricity, water, and/or gas services
c) Internet, and ADT security services
d) All of the above

12. When something happens in life that is not planned, it is important to have a _____.

a) Emergency Fund
b) Mutual Fund
c) Trust Fund
d) General Fund

13. Which insurance is most beneficial to have for making visits to the doctor's office?

a) Medical Insurance
b) Mortgage Insurance
c) Life Insurance
d) None of the above

14. Assuming that life insurance is a necessity, if each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?

a) An elderly retired man, with a wife who is also retired
b) A young married man without children
c) A young single woman with two young children
d) A young single woman without children

15. When writing in a checkbook ledger, it is important to keep up with the following.

a) Balance
b) Date
c) Transaction name
d) All of the above

16. What is likely to happen, if an individual fails to make all agreed payments on a vehicle?

a) Foreclosure
b) Repossession
c) Incarceration
d) All of the above

17. All the following are TRUE about credit cards except _____.

a) You have to pay on credit cards
b) Anyone can have a credit card regardless of age
c) Credit card users have to pay late fees if they do not pay on time
d) Some credit cards have an annual fee

18. Don and Bill work together in the finance department of the same company and earn the same pay. Bill spends his free time taking work-related classes to improve his computer skills; while Don spends his free time socializing with friends and working out at a fitness center. After five years, what is likely to be true?

a) Don will make more because he is more social.
b) Don will make more because Bill is likely to be laid off.
c) Bill will make more because he is more valuable to his company.
d) Don and Bill will continue to make the same money.

C. *General Questions*

19. To whom would you give credit to for learning the money management skills you possess. **(Check all that apply)**

___ My parents
___ My grandparents
___ My friends
___ My teacher(s)
___ A class at school
___ Life experience
___ Other:_____

20. What classes at your school expose you to financial education? **(Check all that apply)**

___Computer
___Consumer Science
___Economics
___English
___Math
___Science
___Other, please list:_____

D. ***Questions about Demographics***

21. What is your race? **(Please check only one)**

____White/Caucasian
____Black/African American
____Alaskan/American Indian
____Asian/European American
____Hawaiian/Pacific Islander
____Two or more race ethnicity
____Other

22. What is your gender? _____ Male ____Female

23. What is your age? ____

24. What is your current grade level? **(Please check only one)**

____ 7 th Grade ____ 10th Grade
____ 8th Grade ____ 11th Grade
____ 9th Grade ____ 12th Grade

25. Select one, which best describes your household.

____ Nuclear Family (mom and dad)
____ Single Parent Family (mom or dad)
____ Legal Guardian (any adult other than birth parents)

26. Choose one below that best describes where you live? (Please check only one)

____ Farm
____ Rural area/town with less than 10,000 population
____ Town with 10,000 – 50,000 Population
____ Suburb with over 50,000 population
____ City with over 50,000 population

REALITY CHECK PARTICIPANT POST - EVALUATION PART 2
Immediately After Participating in Reality Check

A. Check *the answer in the rows below that best describes your* ***intended behavior change "after"*** *participating in Reality Check.*

No.	Financial Behavior	Never	Almost Never	Often	Almost Always	Always
1.	I now plan to buy items I need first, then items I want.					
2.	I now plan to write goals for managing my money.					
3.	I now plan to track all of my expenses.					
4.	I now plan to use a spending plan/budget.					
5.	I now plan to discuss money management with my family.					
6.	I now plan to set aside money for future needs/wants.					
7.	I now plan to save money on a regular basis.					
8.	I now plan to compare prices when I shopped.					

B. POST-KNOWLEDGE - *Please circle the correct answer to the questions below.*

9. When something happens in life that is not planned, it is important to have a _____.
a) Emergency Fund
b) Mutual Fund
c) Trust Fund
d) General Fund

10. Which insurance is most beneficial to have for making visits to the doctor's office?
a) Medical Insurance
b) Mortgage Insurance
c) Life Insurance
d) None of the above

11. All the following are TRUE about credit cards except _____.
a) You have to pay on credit cards
b) Anyone can have a credit card regardless of age
c) Credit card users have to pay late fees if they do not pay on time
d) Some credit cards have an annual fee

12. What is likely to happen, if an individual fails to make all agreed payments on a vehicle?

a) Foreclosure
b) Repossession
c) Incarceration
d) All of the above

13. Which of the following instruments is NOT typically associated with spending?

a) Debit Card
b) Certificate of deposit
c) Cash
d) Credit Card

14. When writing in a checkbook ledger, it is important to keep up with the following.

a) Balance
b) Date
c) Transaction name
d) All of the above

15. Don and Bill work together in the finance department of the same company and earn the same pay. Bill spends his free time taking work-related classes to improve his computer skills; while Don spends his free time socializing with friends and working out at a fitness center. After five years, what is likely to be true?

a) Don will make more because he is more social.
b) Don will make more because Bill is likely to be laid off.
c) Bill will make more because he is more valuable to his company.
d) Don and Bill will continue to make the same money.

16. Assuming that life insurance is a necessity, if each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?

a) An elderly retired man, with a wife who is also retired
b) A young married man without children
c) A young single woman with two young children
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17. Which of the services below are considered a necessary expense when living on your own?

a) Telephone and cable services
b) Electricity, water, and/or gas services
c) Internet, and ADT security services
d) All of the above

18. Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay?

a) Social security and Medicare contributions
b) Federal income tax, property tax, and Medicare and social security contributions
c) Federal income tax, social security and Medicare contributions
d) Federal income tax, sales tax, and social security contribution

C*. Please select the choices below that best* ***describes your thoughts about perceived benefits "after"*** *participating in the Reality Check program.*

No.	Perception of Reality Check	Definitely Agree	Agree	Neither Disagree Nor Agree	Disagree	Definitely Disagree
19.	The Reality Check program is beneficial to participants and prepares them for the real world.					
20.	The Reality Check program has taught me how to set SMART financial goals.					
21.	Students who participant in a Reality Check program can improve their financial management skills.					
22.	The Reality Check program helped me to see the relationship between education and career options.					
23.	The Reality Check program does influence a participant's ability to manage (budget) money.					
24.	All middle and high school students should be required to go through a Reality Check program before graduating.					
25.	I now feel more confident when making financial decisions.					
26.	I would recommend the Reality Check program to other teens I know.					

27. Please list one or more things you'll do as a result of participating in the **Reality Check** program (such as deciding if a purchase is a need or want, tracking expenses, etc.)?

_____

_____

_____

Appendix D

Data Analysis Chart for Reality Check Study

Data Analysis for Reality Check Study

Domain	***Question***	***Analysis***	***Related Survey Questions***
Self-reported Financial Behavior	**1**. What are the differences, if any, in students' self-reported financial behavior before and after participating in Reality Check?	Frequency distributions/ percentages for items; Further analysis included paired *t*-test Conduct pre and post differences using paired *t*-test; Cohan's D for effect size if significant	**Financial Behavior** **Pre:** 1-8 **Post:** Repeated 1-8
Financial Knowledge	**2.** What is the relationship among participants' financial knowledge before and after participating in Reality Check?	Frequency distributions/ percentages for items; Further analysis included paired *t*-test Conduct pre and post differences using paired *t*-test; Cohan's D for effect size if significant	**Financial Knowledge** **Pre:** 9-18 **Post**: Repeated 9-18
Perception of the Reality Check	**3.** What is the effect of demographics (race, gender, age, grade level, family household type, home location) on participant's perception of Reality	Frequency distribution for demographics; Analysis by race, gender, age, grade level, family household type and home location	**General Question** **Pre:** 19 & 20 did not use in Analysis **Demographics** **Pre:** 21-26
Open-ended Question	**27**. Please list one or more things you will do as a result of participating in the Reality Check program.	Frequency distributions/ percentages for items; Qualitative analysis of open-ended responses	**Post:** 27

Appendix E

Question 27 Themes and Support Data

Listing of Participants Responses for Question 27

"Would You Do As a Result of Participating in the Reality Check Program?'

“Track expenses and budget”
“Create a budget list”
“I will make sure I go home and inform my parents about managing their money.”
“Budget more with my money and keep up with everything I spend”
“Start keeping up with and managing my money correctly”
“Budget”
“Keep up with the money I spend”
“Keep track of my spending, spend more cheaply and wisely.”
“I'll keep track of my spending now and I know
“Track expenses and budget”
“Create a budget list”
“I will make sure I go home and inform my parents about managing their money.”
“Budget more with my money and keep up with everything I spend”
“Start keeping up with and managing my money correctly”
“Budget”
“Keep up with the money I spend”
“Keep track of my spending, spend more cheaply and wisely.”
“I'll keep track of my spending now and I know how to manage my money.”
“Keep track of my expenses when I get money.”
“I will keep up with all of my expenses and keep a budget. “I will make a good plan for myself when it comes to finances.”
“Talk to my parents about money managing money and to help me with it.”
“Manage my gas and only go where I need to go.”
“I will start to plan out what I do with my money and make a budget”
“Manage my money better”
“Track my expenses more and budget”
“Track my expenses”
“I'm going to start budgeting and saving money.”
“Make a budget”
“Make a budget for purchasing merchandises”
“I'm going to start tracking my expenses.”
“I will try to get what is needed and track my budget and expenses.”
“Think about a pie when I think about dividing my money out.”

“If I have a savings, I will use for things I want.”
“Make the right choices and have a budget plan”
“I would manage my money better.”
“I will keep track of my money better.”
“Manage my money”
“Keep track of all my money.”
“Tracking expenses.”
“I will make a budget for myself on what I can spend at one time to save.”
“I will set-up a budget”
“I already keep track of all my expenses.
“I will start managing my money better.
“Learn to track expenses.”
“I would have a budget”
“Budget my money”
“Tracking expenses”
“I am going to start planning and making a budget.”
“Budget”
“Track my spending.”
“Develop a habit of recording my purchases”
“I'll start a budget”
“Budget my money”
“Balance my money.”
“Use a budget pie.”
”Budget my money”
“I'll start a budget”
“Watch my budget”
“I will definitely start to balance my money better.”
“Manage my account”
“Budget and track my money.”
“Track my expenses.”
“Track my expenses and tell my older brother what I've learned in all two days.”
“I will tract my money and plan my spending.”
“Track expenses
“Track what I spend”
“Keep track of my spending.”
“Budget my money.”
“I will keep tract of the things I buy.”
“I will track my expenses and watch how I spend my money.”
“I will always keep my checking account on track.”
“I will practice tracking my expenses.”
“I will write down what I buy and not buy stupid things.”
“Manage money”
“Keep track of my spending”
“I will track my expenses”
“I will manage and plan my spending and keep a budget.”
“Keep track of my money and make a spending plan”

“I'm going to start tracking my expenses.”
“Set a budget and keep a record of my spending.”
“When I get a job, I will budget my money wisely.”
“I am going to start planning a budget”
“Keep a tab on all expenses and withdrawals”
“I will buy what I need first.”
“I will now think and ask if I really need this before I buy it.”
“I see what I needed but not what I wanted.”
“Buy my needs first.”
“Use good decision making when choosing what purchases I need and don't need.”
“Make sure all my needs are met before ever buying your wants definitely when you have a husband and maybe kids, and are not single.”
“Deciding if a purchase is a need or want”
“Decide if a purchase is a need or want”
“I will put my needs over my wants.”
“I would make a list of things I need and what I want.”
“I will not only buy what I want but what I need first.”
“Limit my spending to what I need.”
“Purchase what I need first and then what I need”
“I will always get what I need first.”
“I will purchase things I need and buy things I want later.”
“I would make sure I get things that I need before things I want.”
“Put my needs before my wants.”
“Put more money aside for my needs and wants”
“Purchase what I need over what I want”
“Buy wants after what I need.”
“I will purchase needs before my wants”
“I will learn to put my need first.”
“I will buy needed things first not wants.”
“I will be sure to buy less needs and wants.”
“Help decide if something is a need and want.”
“Get my needs before wants.”
“Be smart with money. I will buy things I need not what I want.”
“Focus on things I need first and save for what I want.
“Purchase only my needs.”
“I will make sure I get what I need before what I want.”
“Purchase our needs.”
“Purchase our needs.”
“Decide what I want and need”
“I will get the things I need then if I have extra money, then “I will get my wants.”
“Deciding when shopping if I really want something or need something.”
“Buy needs before wants.”
“I will plan to buy items I need first, then items I want.”
“I would start buying what I really need”
“Buy things I need instead of what I want”
“Buy things I need instead of what I want”

“When I have money, I will make sure I spend my money on everything I need instead of what I want.”
“I will make my decisions wisely and always put my needs before my wants.”
“Use my money to buy what I need first and then what I want”
“I will make sure I get my needs and wants straight.”
“Use good decision making when choosing what purchases I need and don't need”
“Now when making purchases, I will decide if I need it or want it.”
“Watching what I buy and purchase necessities before my wants.”
“I will decide if one purchase really have priority over another.”
“Save my money”
“Saving”
“Save”
“Now, I'm going to try to save my money for things I need and after that if I have enough left over, I could buy something I want.”
“Learn how to save money.”
“I will start saving my money better.
“Buy less stuff I want and save money”
“Save my money”
“I am going to start saving money”
“I will now save more money and only spend on the things I really need.”
“I will start saving more because I shop a lot and need to save so I won't be broke.”
“I will now start to save money while I don't have any bills and put that money into a savings account.”
“Manage my savings more often”
“Learn how to save my money.”
“Save my money and don't buy crazy things”
“Save money for the stuff I want.”
“Set money aside.”
“Start saving money and start a savings account.”
“I am going to start saving my money so I can give half to charity and put half in the bank.”
“I am going to save my money more better.”
“I will save some of the money I get.”
“Save my money wisely”
“Save up my money.”
“I will save money after I get everything I need and be considerate.”
“I will start saving money more often.”
“I will always save my money.”
“From now on, when I get my allowance, I will save 5.00 for my future.”
“I will save a hand full of money.”
“I'll start making plans and make a budget for money in the future.”
“Save some money in an account.”
“Start saving money more often”
“I will try harder to save my money for things I want.”
“Save for things I need.”
“Save money to buy some things I want”
“I'll start saving more on needs instead of fun activities.”

“I will start saving money instead of spending it immediately.”
“I will save my money instead of spending it all when I get it.”
“Save for things I want”
“I will save and budget better.”
“I will use my parent’s money and save money.”
“Save money”
Save more money for college and a car.”
“Manage my savings more often”
“I am going to start saving and talk about this with my parents.”
“I'll also start saving more money for college.”
“Save more money for the future”
“Save”
“Keep more money in my savings account”
“When I get a job, I will save my money wisely.”
“I would now save my money and not buy certain things just because I want to when I can put into saving.”
“I will save more money.”
“I plan on saving my money.”
“Manage my savings more often”
“I'll save more money”
“I will start saving my money”
“Start saving now.”
“Make better decisions about saving.”
“Start saving my money.”
“I'm going to start saving my money”
“I will start saving my money so I can buy things I want.”
“I will set down and add up all my money I will need for the month and see what else I have left.”
“I'll pay more attention to things I buy.”
“I will purchase things that are now generic brand.”
“Buy less stuff I don't need.”
“Make a list of things I want to buy and balance my money out.”
“I will make better financial decisions.”
“I would talk to all my friends so they would understand the importance of paying bills.”
“Buy a cheaper car.”
“Try to succeed in life.”
“Make sure I think twice about what I buy”
“I will now pay attention to what I buy.”
“Write a check”
“Pay my bills”
“I would buy a different car and food. Give my children money.”
“I'll think more.”
“I will write down everything I brought”
“I will think before I buy something.”
“I am more likely to be more aware of what I am doing.”
“There is a lot more to pay than just electricity, water, and gas for living on your own.”

“How to buy.”
“Be smart about purchasing different insurances.”
“I will purchase less expensive stuff.”
“I will debate on if I really need something or not”
“I will pay more attention to my money.”
“I will buy generic brand products.”
“Not to drink and drive because I will go to jail and loose my license and have to ride the bus.”
“I will decide if I need something and want something depending on how much it cost.”
“Not have kids”
“Purchase things for my truck.”
“Purchase things for my car.”
“Don't have kids.”
“Purchase things that are not all name brand or fancy.”
“Don't get pregnant.”
“I will pay attention more.”
“I will make sure I pay attention to where my money goes.”
“I would be wiser on how I spend my money and what I spend it on.”
“I'll buy cheaper things to save more money.”
“Start spending wisely”
“Pay more attention to how I spend”
“I will know how to spend money more responsibly.”
“I'm planning to spend my money better.”
“Listen and learn how to spend my money and what to spend it on.”
“Spend my money more wisely.”
“Spend my money wisely”
“Make better decisions about spending.
“I am more confident with my spending.”
“Be more carefully of how I spend my money”
“I plan to count and spend my money”
“Think/plan how I'm going to spend my money.”
“Don’t spend all my money but save some.”
“Learn how to spend money”
“I will think before spending now.”
“I will plan how I spend my money”
“Spend money wisely”
“Watch what I spend.”
“Watch how I spend my money.”
“Watch my spending.”
“I will plan my spending.”
“I will plan/ think about how to spend my money.”
“I will compare prices when I buy stuff.”
“I will research more on prices.”
“I will research more on prices.”
“I will compare prices “
“Compare prices”
“I will compare prices.”

“Set a goals for myself”
“I will set more goals on how to use and spend my money.”
“I'm going to take school seriously.”
“I definitely plan to attend college.”
“Get more education.”
“I am going to keep working hard in school
so I can get a good education.”
“I will graduate from high school
go to college.”
“I plan on finishing school because it is important.”
“I plan to finish high school
go to college to get a good paying job.”
“I plan to graduate and not be a single mom and have money to get a house.”
“Stay in school
go to college.”
“I will take a finance class to help me learn more about this.”
“Don't drop out of school.”
“Work as a teacher.”
“Don’t drop out of school.”
“I will go to nursing school.
“I am going to college.”
“Marry someone with a job.”
“Get a better job and help around the house.”
“Start looking for a job.”
“I will think about careers.”
“Convince my spouse to get a job.”
“I would get a second job.”
“When I get older, get a job that makes a lot more money.”
“I will get a job and keep my family.”
“Work, and help with bills”
“Discuss money management with my parents.”
“I will start talking to my family about managing the money we spend.”
“Talk to my family about money management.”
“Talk to my parents about helping me set up a checking account.”
“I will shop more wisely.”
“Do not have a wife.”
"Get a good evaluation”
“All of the above”