FINANCIAL LITERACY
OF HIGH SCHOOL SENIORS

by

STEPHEN DOUGLAS SHULTS

(Under the direction of Wanda L. Stitt-Gohdes)

Abstract

This study examined the financial literacy of high school seniors. The survey instrument was created by Dr. Lewis Mandell (2006a). The six aspects of financial literacy measured by the questionnaire were financial responsibility and decision making, income and career, planning and money management, credit and debt, risk management and insurance, and saving and investing. The composite score of the survey was used for statistical analysis.

A convenience sample of 293 secondary students resulted in 153 respondents with 151 completed paper-based questionnaires. Data analysis techniques included descriptive statistics, $t$ tests, and Pearson Correlation. Analyses were conducted to determine effect of gender, race, and personal bank account ownership, socioeconomic level, and paid work experience impacted financial literacy scores. A correlation between the Jump$tart Coalition Survey of Personal Financial Literacy Among Students scores and time to complete the survey was generated to describe this relationship. Results indicated that overall, high school seniors represented by this convenience sample did not possess adequate financial literacy with an average score of 50.5. Results revealed statistical differences at .05 level of significance based on race, personal bank account ownership, and socioeconomic level. No statistical significance was found based on
gender or paid work experience. A correlation of -.05 was found regarding time to complete survey and survey score.

INDEX WORDS:

Financial literacy, Gender, Race, Socioeconomic level, Personal bank account ownership, Survey time, Jump$tart Coalition Survey of Personal Financial Literacy Among Students
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Dedication

This dissertation is dedicated to many great loving people around me.

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CHAPTER I

INTRODUCTION

Economies have been studied as far back as 200 BC (Hopkins, 1980). Due to the importance of economics and survival, recent studies have focused on behaviors and knowledge of personal finance (Banks & O’Dea, 2010, Bernanke, 2009, Lusardi, 2009).

Financial literacy is important to America’s economy. Daily, Americans make decisions about economic and personal finance issues that have far-reaching effects. Making such decisions may be a very difficult task for many due to little or no educational or experiential background in economic and personal finance issues (Clow, 2009) resulting in a lack of financial literacy. Financial literacy has been defined as knowledge about behaviors that are relevant in money management to measure knowledge of income, money management, saving and investing, and spending and credit (Mandell, 2008a; Xiao 2008). Originally named The Jump$tart Survey of Personal Financial Literacy Among High School Students, better known as the Jump$Start Coalition Survey of Personal Financial Literacy Among Students or The Jump$Start Survey (Jump$Start, 2011c) was used in this study. The Jump$Start Coalition for Personal Financial Literacy is a collection of organizations formed in the U.S. to help promote personal financial literacy. Financial literacy, for the purpose of this study, is defined by the Jump$Start Coalition for Personal Financial Literacy (2007), as:

The ability to use knowledge and skills to manage one’s financial resources effectively for lifetime financial security […] Financial literacy refers to an evolving state of
competency that enables each individual to respond effectively to ever changing personal and economic circumstances. (p. 1)

Without such knowledge, people will not understand the need for responsible financial behavior or even what responsible financial behavior requires.

Clow (2009) described some of the personal financial issues faced by individuals as being centered on low levels of savings and the use of credit. As a result of a downward local economy in a northwest Georgia town, residents have been hit hard by personal financial issues. According to the Dalton Daily Citizen News (2011), nine pages of home and property foreclosures were listed in the legal section of the newspaper in the month of April, 2011.


Low level of personal savings was another factor contributing to bankruptcies and foreclosures. Since 1993, the rate of saving has been declining in the United States. Prior to 1993, savings were generally above 5% of disposable income according to the U.S. Bureau of Economic Analysis (2009). This same report described savings rates as a percentage of disposable personal income hitting a low in 2005 of 0.4% and then rising in 2008 to 1.8%. If individuals had savings, some of the foreclosures may have been prevented.
Another consideration to northwest Georgia’s foreclosure situation is the ability for individuals to talk about their personal financial issues (Trachtman, 1999). Finance is discussed differently by people of different religions, cultures, and native languages (Stulz & Williamson, 2003). These differences can determine how open groups may be when discussing personal information related to credit and income.

Since financial literacy is vital to the financial well being of individuals, one may wonder where and when young people learn about financial literacy. Although opinions differ regarding the appropriate time for individuals to learn about financial literacy, learning something at any time is better than not learning at all (Supiano, 2008). It is evident by the number of bankruptcies and foreclosures in northwest Georgia that financial literacy shows limited existence.

Household wealth and race have been studied previously. Differences in household wealth were noted in a study by Aizcorbe, Kennickell, and Moore (2003) that showed the median net worth of adult Caucasian households to be $121,000 while minorities had a net worth of around $17,000. Aizcorbe et. al (2003) indicated some of the key factors that contributed to these factors were lower rates of home ownership and stock market investments among minorities. Differences in culture, family behavior, and life experiences may be creating some of the differences in financial learning opportunities for youth (Aizcorbe et al. 2003).

When these situations are combined, one seems to have a representation of rural northwest Georgia. State unemployment has reached all-time high creating financial hardships for many residents. Therefore, this researcher feels financial literacy needs to be studied due to the current economic downturn, not only in this northwest Georgia area but state wide and nationally.
Purpose Statement and Research Questions

The purpose of this study was to determine the financial literacy of seniors in a rural northwest Georgia high school and then to determine effect of gender, race, personal bank account ownership, and socioeconomic status, paid work experience, and time to complete survey correspond to scores on Jump$tart Coalition Survey of Personal Financial Literacy Among Students. Personal bank account ownership was defined as an account in the individual student’s name at a bank or credit union. Socioeconomic status was be defined as self reported participation in the free or reduced meal program at school. Paid work experience was defined as work for pay. Time to complete survey is actual time to complete Jump$tart Coalition Survey of Personal Financial Literacy Among Students. This study was guided by the following research questions:

1. What was the financial literacy of high school seniors at a rural Georgia high school as determined by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students?

2. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on gender?

3. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on race?

4. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on personal bank account ownership?

5. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on socioeconomic level?
6. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on paid work experience?

7. What was the correlation between scores on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students and time needed to complete the survey?

Theoretical Framework

The theory chosen for this study was Bandura’s Reciprocal Determinism Theory due to the theory’s inclusion of personal factors, environmental factors, and behavior.

Reciprocal Determinism Theory

People learn by different methods. Social learning theory indicates that learning occurs by watching and participating in the environment in which a learner is located. Social learning theory can be explained by reciprocal determinism, the influence and interaction of individuals, and their surroundings (Bandura, 1977). Bandura (1977) developed the theory of reciprocal determinism which illustrates how an individual’s behavior, personal characteristics, and surrounding environment interact with each other. This reciprocal determinism is when “behavior, internal personal factors, and environmental influences all operate as interlocking determinants of each other” (Bandura, 1977, p. 346). Figure 1 illustrates this theory.
Bandura’s work has similarities to work previously done by Dewey and Bentley (1946). Dewey and Bentley illustrated how individuals do not operate in a vacuum as actions initiate reactions which then initiate other reactions, creating a cyclical effect. An example of this is when a student – perhaps from a family that does not demonstrate sound financial literacy – enrolls in a financial literacy course, gets a part-time job, and develops a sound financial literacy plan for his/her life.

Instead of looking at only things we cannot change or environmental influences, research is needed to investigate the combination of environmental influences with the actual experiences and knowledge of the individual being studied. We must also understand that experiences and knowledge will change with time as they are not static. Life experiences will change and develop as will educational experiences. As time passes the learner will grow (Bandura, 1977).

Bandura’s social learning theory is a mix of behavioral, personal, and environmental factors. One key factor in his work is that it is not just a snapshot of the present or one moment when something occurred that is going to be influential enough to make a dramatic difference. It is rather the history of all the categories working together to make things as they currently are (Phillips & Orton, 1983).
Bandura’s theory of reciprocal determinism also is considered to be triadic reciprocality. Triadic reciprocality is defined by Bandura as an over-time interaction between cognition, behavior, and environment (Bandura, 1983). Consideration must be made for other influences that can be problematic when considering the theory. Outside influences of learning must be considered on any or all of the cognition, behavior, and environment factors (Bandura, 1983). Self-beliefs and performance, self-concept, and self-efficacy are all factors that can influence cognition, behavior, and environment as described by Bandura (1983).

**Self-beliefs and performance.** In considering financial literacy rates, research shows that financial literacy is often a cultural issue. For example, Wosinski and Peitras (1990) found that young Polish children were more knowledgeable than other groups about financial literacy due to the external economic conditions. With this being considered, determining reasons for the variation of scores in financial literacy is difficult. Self-beliefs including self-concept, self-efficacy, identity, anxiety, and interest have shown to be significant factors in theories about motivational influences in the individual differences in performance. Examples of these self-beliefs influenced learning theories that include self-determination theory (Deci & Ryan, 1985), self-regulation theory (Carver & Scheier, 1981), and social learning theory (Bandura, 1986).

The influence of self-beliefs on performance and student achievement has been studied and relationships have been found to be significant with particular attention to self-concept (Pintrich & Schunk, 2002).

**Self-concept.** Self-concept is viewed as an assessment of self-worth calculated by comparisons of past performances of the individual with the past performances of others (Marsh, 1986). This concept has been studied in educational settings, and a strong relationship has been
Self-efficacy. The distinction of self-efficacy came from the publication of Bandura’s (1977) seminal treatment of the construct. Self-efficacy comes from the belief that individuals look at situations in one of two possible ways. Individuals may look at a situation and consider it a great opportunity to learn something new due to past experiences and the successful completion of these experiences. Or, individuals may look at the situation as a burdensome task where avoidance, dread, and anxiety weigh on the probably negative outcome of the experience. Individuals with higher levels of self-efficacy tend to look at challenges as opportunities to be confronted instead of avoided. Individuals also find it important to set a high commitment to the challenges as they increase and sustain their efforts for success (Bandura, 1994). After a review of characteristics of reciprocal determinism in math by Williams and Williams (2010), this researcher adapted their model for math for financial literacy. Figure 2 provides a diagram illustrating Reciprocal Determinism.
Figure 2

*Bandura’s Reciprocal Determinism diagram adapted to Financial Literacy*

**Legend:**
- **F.L.S.E.** Financial Literacy Self-Efficacy;
- **S.E.S.** Socio Economic Status;
- **F.L.A.** Financial Literacy Achievement.

Self-efficacy in reciprocal determinism has been a growing topic of research in the past ten years. The effects have been studied in topics ranging from parenting (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001), to athletic performance (Kuczka & Treasure, 2005), to pain control in childbirth (Manning & Wright, 1983).

**The reciprocal determinism of self-beliefs and performance.** Common sense and theory have showed that if individuals believe they can perform well, they will (Bandura, 1994).
Feedback from the individual and significant others shape beliefs (Hattie & Timperley, 2007). This relationship has been viewed similarly to the “which came first – the chicken or the egg” question (Byrne & Whiten, 1997). Two views have developed. First was the self-enhancement view which stated that performance is enhanced based on the thinking of the individual. If individuals believe they are the best at a particular event and have high beliefs that they will do well during a particular competition, they will enhance their performance with the positive thinking. The performance can be enhanced through the process of the performer believing he/she can perform well. The second view behind this thought process was the skill-development view. The skill-development view sees a self-belief as simply a reflection of past performance. This view is simply an individual’s reflection of a past performance and the thought process coming from that performance. Cultural influences can also shape self-beliefs (Bandura, 2002).

Cultural differences need to be noted due to the many beliefs of varying cultures. Most cultures have independent thoughts of the “private” self and the self-beliefs that are attached to those beliefs (Bandura, 2002; Marsh, Hau, Artelt, Baumert, & Peschar, 2006). Heine, Kitayama, and Lehman (2001) found that after a failure, Japanese were more likely to harbor negative self-worth than were Canadians. These negative personal self-beliefs held by Japanese had an overarching effect on other issues dealing with their value of their own personal self not found in the Canadian group.

Importance of Study

Studies have shown many Americans of all ages do not have the ability required to make wise financial choices (Chen & Volpe, 1998; Volpe, Chen, & Liu, 2006). The United States Federal Reserve has been working for more than a decade to demonstrate the importance of
financial education and literacy to developing contributing citizens in our society (Greenspan, 2003, 2005; Hilgert, Hogarth, & Beverly, 2003). Although this study focused on students in a northwest Georgia high school, problems of low financial literacy were found to be affecting individuals both young and old in America, Korea, Japan, and Australia in a study by the Organization for Economic Co-operation and Development (2005).
CHAPTER II
REVIEW OF LITERATURE

Much research has been conducted regarding financial literacy (Anthes & Most, 2000; Banks & O’Dea, 2010; Bolton, 1999; Clow, 2009; Hira & Loibl, 2008; Mandell, 1998; Mandell, 2008b; National Financial Capability Challenge, 2010a; Xiao, 2008). Much of this research showed a low level of financial literacy exists in our society. The purpose of this study was to determine the financial literacy of seniors in a rural Georgia high school and to determine potential relationships between financial literacy and selected independent variables. This chapter focused on the evolution of financial literacy in secondary education, teaching and learning theories, instrumentation, and independent variables to be used in this study.

Evolution of Financial Literacy in Secondary Education

In 1908, Friedrich W. Raiffeisen, the father of the American credit union movement, plainly stated that credit unions are educational institutions (Kelly, 2002). In the 1970s credit unions formed the National Youth Involvement Board (NYIB) to focus on marketing, youth education, and youth leadership through community volunteers (Kelly, 2002). This board was established due to the aging members of typical credit unions. Because the continued existence was based on youth participation in the credit union, goals were centered on youths’ interest and tastes (NYIB, 2011). This and other movements may have contributed to individual states adopting legislation regarding “consumer” education.

Few advances were made in financial education until the mid-1970s. In 1979, many states began to implement financial education programs into their curriculum (Alexander, 1979).
Topics relevant to consumer education were specified in states’ curricula in 14 of the 50 states and included financial decision making from budgeting, credit management, balancing checkbooks, compound interest, and other investment practices and principles (Alexander, 1979). Practical decision-making skills that would prove useful in the student’s adult lives were the objectives for individual state curriculum mandates for course instruction (Alexander, 1979).

Further advances were discussed by Bernheim, Garrett, and Maki (1997) to emphasize both the positive and negative aspects of state mandates to school systems. A positive aspect of the mandated curriculum allowed learners an opportunity to practice financial literacy after learning about the topic. A negative consideration included the pressure for academic success on both students and instructors of the program. In many states, the “mandated” programs were not defined. The broad terms used in these mandates such as financial capacity for daily life left much room for individual interpretations by all stakeholders. Without detailed information to be taught, students failed to see the relevance and importance of the topic and huge variations in course content emerged (Bernheim, Garrett, & Maki, 1997).

In spite of a seeming lack of financial literacy in the last decade, states have been slow to adopt legislation and establish requirements that specific courses and programs be taught in the K-12 educational setting. Thirteen states have mandated some form of financial literacy in their graduation requirements. Those thirteen states were Arkansas, Georgia, Idaho, Illinois, Louisiana, Maryland, New Jersey, New York, Oklahoma, South Dakota, Tennessee, Utah, and Virginia (Peri, 2009). Still other states mandated that programs be offered but were not required for graduation.

Public and governmental sectors have stepped in to contribute to educating the students in their financial educational process (Peri, 2009; Vitt, Anderson, Kenl, Lyter, Siegenihaler &
Ward, 2000). The Vitt, et.al, (2000) report showed what organizations participated and how many programs were offered regarding financial literacy. These included community organizations (n = 29), cooperative extension services (n = 24), business (n = 18), faith based organizations (n = 8), community colleges (n = 7), and U.S. military (n = 4), totaling 90 different programs.

Programs developed for specific groups had common topics of concentration. The financial education programs were divided into three major categories (Jump$tart, 2009). The first was aimed at broad personal finance topics including budgeting, saving, and credit management. The second was targeted toward specific training for retirement and savings and was generally offered by employers. The third category addressed home buying and home ownership. The first category, broad financial literacy education, has been the most evident in secondary education. The Jump$Start coalition for Personal Financial Literacy was the largest organization in the U.S. assisting with financial education. The mission of the coalition was to advance personal financial education in schools, particularly through promoting the use of standards for grades K-12 (Jump$tart Coalition, 2011d).

The National Endowment for Financial Education (NEFE, 2010) developed the NEFE High School Financial Planning Program® (HSFPP). This program is available to all secondary schools and has a broad range of educational resources for financial literacy. Some of the resources available include a seven-unit student manual, instructor’s guide, and a comprehensive web site continually being updated to include resources, articles, and tools for teachers, parents, and students (NEFE).

Highlights from the NEFE program include guides for students to take action and increase financial IQ, flexible and easy to use, noncommercial, available at no cost, created by
top educators and financial professionals, linked to education standards in all 50 states and to several national subject-area standards. Unit topics include: Your Financial Plan: Where It All Begins; Budgeting: Making the Most of Your Money; Investing: Making Money work for You; Good Debt, Bad Debt: Using Credit Wisely; Your Money: Keeping It Safe and Secure; Insurance: Protecting What You Have; and Your career: Doing What Matters Most.

The National Financial Capability Challenge (NFCC, 2010a) is part of the President’s Advisory Council on Financial Literacy. This online program is an awards program designed to increase the financial knowledge and capability of high-school-aged students in the United States to allow them to take control of their individual financial futures (National Financial Capability Challenge, 2010a). This program serves as a motivational tool to encourage students to learn, educators to teach, and school systems to participate, furthering their success in the program. The program provides resources for instruction as well as other tools to engage student learning.

The NFCC (2010b) is designed for easy participation. Once registered, educators may utilize resources from the Toolkit. The Toolkit includes lesson plans, interactive games, and teacher guides covering earning, spending, saving, borrowing, and protecting against risk. Best practices are encouraged on the site with the use of sharing ideas and success stories. The online examination is designed to evaluate the financial literacy of the test takers. The exam is offered every spring. The 2010 exam session tested over 76,000 students. The number increased to over 84,000 for the 2011 exam session. Georgia test takers in the 2011 session ranked 47th among the fifty states. An awards program recognizes the two top scorers at each school in addition to all students scoring in the top 20% of all test takers. Students participating in the 2010 National Financial Capability Challenge scored an average of 70% accuracy (NFCC, 2010a), showing a comparable yet slightly higher result than the Jump$tart Coalition Survey of Personal Financial
Literacy Among Students. Students receive National Financial Capability Challenge Award Certificates. In addition to students being recognized, participating educators receive an official certificate. The awards given as part of this challenge may be linked to the ERG theory of need regarding the students’ need for recognition. Alderfer’s Existence, Relatedness, and Growth (ERG) theory of need might play a part in the students’ need for recognition in part of their individual success.

Learning Theories

Learning can happen in formal or informal settings (Ramsden, 2003). Financial literacy in teenagers was the focus of this study. It is noteworthy that a distinct difference existed between financial literacy and financial behavior (Xiao, 2008). Xiao (2008) explains financial literacy as knowledge based while financial behavior is behavior based. He states that although an individual’s financial literacy may be high, behaviors may or may not be based on knowledge. Although many know risks of credit, high costs of interest, and penalties associated with not adhering to repayment terms, behaviors may not indicate such knowledge. Thus, choosing theories to support both financial literacy and financial behavior are important as the foundation for this study. Two of the most discussed theories on financial behavior include the theory of planned behavior (TPB) and the transtheoretical model of behavior change (TTM) (Xiao, 2008).

Financial literacy has been linked to several learning theories including but not limited to motivational, contextual teaching and learning, and social learning (Baron-Donavan, Wiener, Gross, & Block-Lieb, 2005; Engelbrecht, 2008; Jorgensen & Savlaj, 2010). For the purpose of this study, these theories will be discussed further, with emphasis given to Ajzen’s theory of planned behavior, Bandura’s reciprocal determinism theory, Lave and Wenger’s contextual teaching and learning, and Alderfer’s ERG theory (Xiao, 2008).
Ajzen (1991) developed TPB. The theory uses attitude toward the behavior, subjective norm, and perceived behavioral controls to influence each other as well as influencing intention. Intention then influences behavior. See Figure 3: Theory of Planned Behavior.

Figure 3

*Theory of Planned Behavior*

Source: Ajzen (1991)

The first of three influences of intention is the attitude toward the behavior. This can influence the intention either positively or negatively. Attitude refers to the degree to which a person appraises the behavior in question either positively or negatively (Ajzen, 1991).

The second influence on intention is the subjective norm. The subjective norm is a social factor. Society influences this portion of intention due to peer pressure and society’s influence to either do or not do a particular action (Ajzen, 1991).

The third influence on one’s intention is perceived behavioral control. This influence is determined by the individual considering the behavior. Perceived behavioral control is the individual’s belief of how difficult or easy accomplishing the desired behavior may be. It is assumed that past experiences as well as impediments and obstacles contribute to this perceived
behavioral control (Ajzen, 1991). Although part of the influences of intention, perceived behavioral control has a direct influence on the behavior.

All three influences are then considered and the intention is established. Emphasis can be given to the subjective norm and the attitude of the individual considering the behavior (Ajzen, 1991). An example of this could be personal bank account ownership. Beliefs of how important it is to own a bank account would be considered with the social community’s acceptance and beliefs of personal bank account ownership. These beliefs, combined with the individual’s understanding and attitudes toward the ease or constraints of personal bank account ownership, will then influence his/her intentions of owning a bank account. Ajzen (1991) compared TPB perceived behavioral control to Bandura’s concept of self-efficacy. Bandura and self-efficacy are discussed below.

**Social Learning Theories**

Social learning theories are based on experiences, behaviors, personal factors, and environmental factors. Experiential Learning Theory and Reciprocal Determinism Theory were discussed for this study. These theories were selected due to the previous research of Xiao (2008) and the role these social learning theories play in financial literacy.

**Experiential Learning**

According to Kolb, Boyatzis, and Mainemelis (2001), experiential learning combines core experience, abstract conceptualization, reflective observation, and active experimentation to develop new experiences. These authors suggest that students learn basic facts and combine these facts with their own personal experiences to develop new knowledge.

Social learning is described by Mischel (1973) as learning by watching individuals’ behaviors, practices, and outcomes. Mischel describes how learners develop their individual
practices by gathering information through perceptions and from the practices of those around them.

Experiential learning theory is described as "the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience (Kolb, 1984, p. 41). This study was designed to test some of the relationships of financial literacy with family circumstances that may have added to the learning experience of young individuals by either living through the process or being exposed to the process in some manner.

Financial behavior has been linked to several learning theories including the theory of planned behavior (TPB). The TPB has been used in educational research about e-commerce, (Pavlou & Fygenson, 2006), youth financial savings (Shim, Barber, Card, Xiao, & Serido, 2010), and banking (Pikkarainen, Pikkarainen, Karjaluoto, & Pahnila, 2004).

TPB has been used in educational research in a wide range of studies including but not limited to career development, (Sandler, 2000), training student teachers and experienced teachers (Smarkola, 2008), and creating a plan to move students from thinking about a topic to creating actions and habits about the topic (Haney, Lumpe, Czerniak, & Egan, 2002).

TPB is based on the theory of reasoned action (Azjen, 1991). TPB is based on the subject’s attitude toward the behavior, subjective norms, perceived behavioral control and their influence on intention and the resulting behavior.

Another theory considered for the study is contextual learning. Contextual learning was suggested by Dewey (1959) as a concept that relates what is learned in the teaching environment to students’ experiences and interests in real-world situations. With this approach, learners are motivated to create connections between knowledge and its applications to their individual lives
as family members, workers, and citizens. Strategies in contextual teaching and learning include emphasizing problem solving, encouraging peer learning and cooperative learning in the class, anchoring teaching in students’ diverse life contexts, and learning through reflective practice (Brown, Collins, & Duguid, 1989; Resnick, 1987).

The transfer of knowledge from the classroom setting to real-world situations and settings brings meaning to the coursework for the students and learners. The ability of a student to understand a particular situation depends greatly on the student’s prior knowledge of the topic. This knowledge is similar to a timeline of development instead of knowledge at a single point in time without previous learning and experiences. The richer learning communities providing for peer learning and interaction enhance the development of deeper complex thinking to provide learners with a deeper understanding of the subject (Bransford, et al. 2000). “The creation of learning communities thus depends on a dynamic combination of engagement, imagination, and alignment to make this interplay between the local and the global an engine of new learning” (Wenger, 1998, p. 228).

**Contextual Teaching and Learning**

“I hear and I forget. I see and I remember. I do and I understand” (Confucius, n.d.). Research has shown that most individuals are not abstract learners (Gardner, 1983). Gardner went on to say that most of us learn best through contextual, informal experiences. Brown (1994) stated that contextual learning theory (CLT) is rooted in constructivist practice. CLT helps instructors connect lessons to real-world examples and allows students to create individual connections between material being taught and real-world applications (Brown, 1999).

Dewey (1938) stated that “all genuine education comes through experiences” (p.35). It can also be said that we learn from the individuals in our social circle (Rogoff & Lave, 1984).
Interaction with others gives opportunities for experiences of learning, cooperation, collaboration, conversations, negotiations of meaning, and competition (Brown, 1994). Situated learning can often give experiences to learners in a way that allows them to learn from participation (Lave & Wenger, 1990).

Learning experiences in financial learning may include students creating budgets, managing household expenses, and planning for career and future needs. These experiences can be accomplished both in the classroom and at home, in a variety of ways.

**Comparing ERG and Motivational Theories**

Alderfer’s Existence, Relatedness, and Growth (ERG) theory takes some of Maslow’s needs theory and reorganizes the thought process. Categorizing the needs for existence into existence, relatedness, and growth, Alderfer uses some of the same basic concepts of Maslow (Schneider & Alderfer, 1973). The major difference with the two theories is that with Alderfer’s ERG theory, the needs may be sought after and strived for in any order. There is no hierarchy that must be followed before moving on to the next level of attainment. Although ERG does not have the reputation and high publicity of Maslow’s need hierarchy, many similarities exist between the two (Schneider & Alderfer, 1973). Table 1 shows how the two are similar and how the categories are divided.
Table 1

*Maslow’s need hierarch compared to Alderfer’s ERG need categories*

<table>
<thead>
<tr>
<th>Maslow Categories</th>
<th>ERG Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological</td>
<td>Existence</td>
</tr>
<tr>
<td>Safety-material</td>
<td></td>
</tr>
<tr>
<td>Safety – interpersonal</td>
<td>Relatedness</td>
</tr>
<tr>
<td>Belongingness (social)</td>
<td></td>
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<tr>
<td>Esteem – interpersonal</td>
<td></td>
</tr>
<tr>
<td>Esteem – self-confirmed</td>
<td></td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>Growth</td>
</tr>
</tbody>
</table>

As illustrated in Table 1, existence needs are equivalent to all of the physiological needs. Existence includes a portion of the safety needs that Maslow groups as one category. The ERG theory divides safety into existence and relatedness. In the existence category, safety needs related to material ends and physical threats are included. In the ERG relatedness category, safety issues related to interpersonal threats are included. The relatedness category also includes the entire belongingness (social) category of Maslow’s needs as well as the esteem portion that depends upon the reactions of significant others. In the ERG growth category, all of Maslow’s self-actualization is included as is the portion of esteem that deals with the surpassing of one’s own standards (Schneider & Alderfer, 1973).

Other differences between Maslow’s needs hierarchy and ERG are not as noticeable as the ones mentioned previously. Schneider and Alderfer (1973) address the differences. In the ERG need theory, the relatedness needs category stipulates significant others in the relationships area while Maslow less clearly defines the relationships of interpersonal safety or esteem needs. Another difference is found in the self-esteem category as Maslow implies that self-esteem is a basic human need. ERG departs from the centrality of esteem in the relatedness process.

Maslow’s needs theory indicates that self-esteem unfolds as levels of the hierarchy are developed and reached during the life process (Maslow, 1970). The ERG theory is more flexible
to allow individuals the ability to develop and be aware of their existence in their environment. As the maturation process unfolds during the growth process, individuals have options available to them and they strive according to their individual desires. This opposes Maslow’s theory as Maslow’s theory is a hierarchy of needs based on the satisfaction of lower needs before higher needs may be obtained (Maslow, 1970).

Figure 4 shows how Alderfer’s ERG theory is designed (Alderfer, 1969). Progression and regression flow independently of particular levels of existence needs, relatedness needs, and growth needs.

Figure 4

_Alderfer’s ERG Theory_

Source: Alderfer, 1971

No one universal factor motivates individuals. Motivational learning theory is a driving force that can be applied internally or externally (Joyce, Weil, & Calhoun, 2004). For those with an understanding and motivation to learn, two theory groups are to be considered.

In the content theories, importance is placed on what directs and shapes behavior and energizes individuals to meet their needs (Dunset, Leet, & Trivitte, 1988). This group of theories
focuses on identifying individual’s needs, strengths, and goals and what is needed to meet those goals. The four most recognized content theories are Herzberg’s two-factor theory, McClelland’s achievement theory, Maslow’s needs hierarchy theory, and Alderfer’s ERG theory.

Another widely used motivational theory is McClelland’s achievement theory. McClelland’s theory is somewhat related to Maslow’s theory as it, too, includes self-actualization, esteem, and affiliation. More specifically, this theory focuses on four main factors of arousal-based and socially-developed motives that include achievement, power, affiliative, and avoidance motives (McClelland, 1965).

Summary of Theories

Many learning theories exist. These theories range from how we learn (contextual), to why we learn (motivational), to behaviors from learning (behavioral). I chose Bandura’s theory of reciprocal determinism due to my belief that much of financial literacy seems to be environmental as much as it is educational. This theory mixes both educational factors as well as environmental factors to create the level of knowledge for the individual.

Jump$Start Coalition of Financial Literacy

The Jump$Start Coalition Survey of Personal Financial Literacy Among Students used in this research study is a product of Jump$Start Coalition’s efforts to learn about financial literacy. The creation of the Coalition and implications for America’s future are discussed.

Creation of the Coalition

During 1995, real personal income was at an all-time high in the United States (Mandell, 2008b). Although this was an exciting time for income opportunities, financial distress, as measured by the number of families filing for personal bankruptcy, had never been higher. Mandell (2008b) compared this time to Dickens’s A Tale of Two Cities – “It was both the best of
times and the worst of times.” The Jump$tart Coalition for Personal Financial Literacy was created in 1997 to help bring an understanding of the circumstances and what catalysts may increase financial security and stability.

Early pioneers of the financial literacy movement came together to establish a hypothesis to explain the circumstances. Deregulation of the financial services industry approximately 20 years earlier had seemingly encouraged the proliferation of financial products. Not only were interest rates on saving accounts deregulated, credit cards and loans were also deregulated (Mandell, 2008b). The resulting financial products available to consumers were targeted for non-conforming loan applicants due to the consumer’s credit rating or income.

While reactions to the products were mixed, most economists believed the array of goods available to consumers were positive even though most consumers were incapable of evaluating the restrictions and rules of compliance for the products they were receiving (Jump$start, 2009). Thus the poor judgment of the consumers often led to poor financial practices and behavior.

The Jump$start Coalition (2009) soon developed two conclusions. First, the problem was too large for a small organization to conquer; therefore a consortium should be established with financial literacy as the basis for the group. Second, a financial literacy baseline should be established and measured periodically to determine what might be affecting the literacy levels with regard to financial matters.

The Jump$start Coalition Survey of Personal Financial Literacy Among Students (Jump$start, 2009) measured high school seniors based on their age. Jump$start (2009) shows the typical age of seniors to be 18, an age allowing them to purchase goods and services, establish home ownership, and obtain credit in the form of credit cards and loans. Another reason this group was selected to be measured is that these students, in their last year of public education,
with adults acting in their best interest, will have the opportunity to make changes to public policy by influencing financial literacy education in the school systems across America. Courses relevant to financial literacy could be established, implemented, and required for students across the country. Another consideration given to implementation of the survey only at this northwest Georgia high school was the cost. Giving such an extensive survey to specific populations outside the secondary educational setting was cost prohibitive. Administering the survey through an existing secondary school was a more cost-effective manner.

**Implications for JumpStart in America’s Future**

Differing opinions exist regarding the importance of measuring financial literacy (Mandell, 2008a). While the survey measures financial literacy, it is believed that with financial literacy, improved financial behaviors will follow once additional knowledge is obtained. Bernheim, Garrett, and Maki’s (1997) study found that financial education may have a long-term effect on participants. In comparison, Currie and Thomas (1995) found that the effects of head start programs, a form of preschool, are not immediately seen. The benefits of such head-start programs often take 20 years to become apparent. The same may or may not be true with financial education. The benefit of programs dealing with financial literacy may take 20 years to become apparent.

Varying evidence has emerged regarding the effectiveness of educational mandates in financial literacy. Although evidence showed that financial literacy can be improved somewhat with specific mandated courses to be taken by all students (Mandell, 2008a), controversy exists regarding exactly what should be taught and included under the financial literacy umbrella. Another consideration is that the national standards for financial education, established by the Jump$tart Coalition for Financial Literacy (2011a), should be mastered by students in the K-12
setting. With only 13 states currently mandating financial education as a part of the curriculum, it may be some time before all standards are adopted by all states.

Mandell (2007) noted that among middle grades, sixth-grade students show the most effective financial learning capacity. The National Association of State Boards of Education (2010) recommended that financial literacy and investor education become part of basic education beginning in the first grade and continuing throughout the educational process. Although research needs to show which method of instruction would be most effective and productive, those programs involving interaction, simulations, and relevance showed promise when striving to increase financial literacy (Mandell, 2008a).

The United States was not the only country concerned with financial literacy. Mandell (2008a) noted that to give young adults a stake in the economy, it has been considered that the U.S. government provides every newborn a “substantial government grant.” Starting with the earliest possible grade, lessons would be centered on this account which cannot be withdrawn until age 18. Three years ago, the British adopted this policy; and effectiveness of this program will not be determined for many years (Mandell, 2008a).

**Current Financial Education Programs**

Educational programs dealing with financial literacy have been provided by private and public initiatives (Fox & Bartholomae, 2008). Some of these initiatives included the Jump$tart Coalition for Financial Literacy, Save More Tomorrow, Even Start, and the Credit Card Act of 2009 (Mandell, 2006a; Thaler & Benartzi, 2004; Chodkiewicz, Johnston, & Yasukawa, 2005; Credit CARD, 2010).
Jump$tart Coalition for Financial Literacy

The ability of most financial literacy programs to show a lasting effect on financial literacy is inconsistent (Anthes & Most, 2000). Any optimistic beliefs of lasting results must use caution (Todd, 2002). Little follow up has been conducted in the majority of financial literacy programs to measure the use of topics learned throughout educational efforts (Hopley, 2003; Lyons, Palmer, Jayaratne, & Scherpf, 2006).

The most visible assessment measurement in the financial literacy arena is the Jump$tart Coalition Survey of Personal Financial Literacy Among Students (Mandell, 2006a). The Jump$tart Coalition conducts a personal financial literacy survey of high school seniors every two years. The survey has found that students who do not participate in a personal finance course score higher on the survey than students participating in a personal finance course (Mandell, 2006a). However, there is compelling evidence that such courses do improve financial behaviors (Mandell, 2006a)

The Jump$tart Coalition has a portion of the website dedicated to Clearinghouse of Educational Resources, National Standards (set by Jump$tart), Best Practices, State Financial Educational Requirements, Reality check, and Spotlight on Curriculum (Jump$tart, 2011b). The clearinghouse of educational resources is a resource of free and for-purchase materials. The Coalition reviews submissions to the site using a guideline. Although the Jump$tart Coalition may include these submissions in the clearinghouse, endorsement by the Jump$tart Coalition is not implied.

Adult Saving Programs

The program targeted toward employees is Save More Tomorrow (Thaler & Benartzi, 2004). This program required participants to commit to save a portion of future raises. Through
this program, participants in the original pilot program increased savings rates from 3.5% to 11.6% over a 28-month time frame (Thaler & Benartzi, 2004). The Save More Tomorrow program is free of cost to any company willing to share their data with the program developers (Thaler & Benartzi, 2004). Companies interested in starting the Save More Tomorrow program may contact either Richard Thaler at University of Chicago or Shlomo Benartzi at University of California, Los Angeles. Other studies have shown successful increases in retirement contributions when an educational program was presented to employees (Duflo & Saez, 2003; Madrain & Shea, 2001). These employee-based financial education programs have demonstrated higher success rates than education and information-based programs (Duflo & Saez, 2003).

Programs targeted toward home ownership and savings plans have been successful in raising savings rates as well as home ownership rates by individuals (Duflo & Saez, 2003). Borrowers who participated in a home ownership course were able to reduce debt, decrease number of accounts, and improve bank card risk scores (Elliehausen, Lundquist, & Staten, 2007). Counseled borrowers for home purchases were found to have 19% fewer 90-day delinquencies than those without counseling prior to receiving a mortgage (Hirad & Zorn, 2001). These studies contribute to the idea of Just-In-Time Financial Education. Just-In-Time Financial Education is based on the education of participants when they need to know the material for a particular financial need (Mandell, 2006b). Examples of this idea allow home buyers to learn more about home ownership as they enter the housing market, and individuals purchasing insurance may be receptive to information regarding risk management as they choose insurance options for their needs.
Family educational programs are rare. EvenStart is a family-oriented financial literacy program focusing on family involvement and discussion of consumer issues of savings, credit and debt, and money management (Chodkiewicz, Johnston, & Yasukawa, 2005). A positive impact has been found based on studies with parent and children involvement (Lyons, 2008).

Financial educators find it challenging to isolate financial counseling from education (Todd, 2002). Although most financial education is provided in the school setting, a majority of educational efforts have been aimed at low-income families (Braunstein & Weich, 2002). While all of these factors are issues to be noted, actual data for delivery method, time spent on instruction, and type of instruction are often not reported in studies (Bernheim, Garrett, & Maki, 2001). The need for detailed instruction during the course delivery has been shown to help classify programs as successful or unsuccessful. Future research to determine best methods for follow-up, delivery, long-term retention of information, and application of materials would yield useful information (Duflo & Saez, 2003; Braunstein & Welch, 2002; Hopley, 2003).

**Needs to Consider when Teaching Young Adults**

A six-week study conducted by the National Endowment for Financial Education and USA TODAY (Jones & Newport, 2006) provided interesting examples of why adolescents should become financially literate for their own good as well as the good of the community and nation. This study found six major obstacles facing the twenty-something group with regard to financial literacy. These included struggling with debt, paying off student debt, saving money, cutting credit card debt, obtaining their individual place, and getting health insurance.

Lyons (2008) studied the financial practices of college students. The study showed that many factors influenced financial behavior but particular interest was given to the debt burdens students were incurring during college. Students are turning to higher cost instruments of credit
and credit cards, to pay for their educations. Although limited studies have researched the practice of paying for college with credit cards, it is believed that as many as 24% of students are now turning to this practice (Nellie Mae, 2005). It is also estimated that as many as 70% of students rely on credit cards to purchase textbooks to continue their educations (Lyons, 2008). Although alarming at first, most studies have shown the majority of students are not accumulating uncontrollable amounts of debt for college expenses (Nellie Mae, 2005; Lyons & Hunt, 2003).

The Credit CARD Act of 2009 led to sweeping reforms for youth and credit. Gone are the days when college freshmen could sign up for a credit card to receive a free t-shirt on campus (Credit CARD, 2010). New regulations require consumers younger than 21 to show proof of income to repay car loans or have a co-signer over the age of 21 if they wish to have an account in their own name. Part of the Credit CARD act is to protect minors from credit card companies’ practices and themselves from overspending and the potential for future financial hardships.

Many aspects of education for the adolescents today focus on the well being of the learner and how to establish oneself as financially “fit.” Joo (2009) discussed the importance of personal financial wellness. Just as general well-being is important to individuals today, financial well-being can be compared to physical well-being. Understanding income and what it takes to provide for needs and wants is all part of financial fitness.

As mentioned earlier, many young adults may not see the need for financial education. Educators must demonstrate relevance of the material to the learner. Although “Just in time” educational practices (Bolton, 1999) have proven to be a good practice for financial literacy, it may not always be possible for students to wait until the time of need for their individual financial education.
National and States’ Practices Regarding Financial Literacy

States and/or state school boards of education mandate what is taught in their school systems. As more attention has been given to financial literacy, states vary on their actions regarding the mandating of financial literacy courses (Peri, 2009).

States with Mandates

According to Peri (2009) with the Council for Economic Education, 13 states required personal finance education to be taught in their school systems. The 13 states included Arkansas, Georgia, Idaho, Illinois, Louisiana, Maryland, New Jersey, New York, Oklahoma, South Dakota, Tennessee, Utah, and Virginia. The Jump$tart Coalition for Financial Literacy (2011a) identified another set of states as having mandated curriculum. The 24 states identified by Jump$tart were Colorado, Georgia, Idaho, Illinois, Indiana, Kentucky, Louisiana, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia. Note that the two lists differ in more than one way. The list published by Peri (2009) was from 2009. The list from Jump$tart (2011a) was current as of July 31, 2010. Second, lists differ on Maryland and Arkansas. Jump$tart includes neither Maryland nor Arkansas. Arkansas incorporates personal finance into a required economics course (Arkansas DOE, 2009). Maryland does not require personal financial education neither in a stand-alone course nor as part of an economics course according to S. Phipher (personal communication, June 16, 2011.)

Although 13 states may have requirements that mandate personal finance be included in curriculum, many differences exist in rules and regulations behind these mandates. The number of states participating in personal finance education has increased over the past 11 years. During
this time, the number of states requiring standards to include personal finance has increased from 11 to 34 (Peri, 2009), as shown in Table 2.

Table 2

*Number of States including Personal Finance in K-12 Curriculum, 1998 – 2009. (Peri, 2009).*

<table>
<thead>
<tr>
<th>Topics</th>
<th>Included in state standards</th>
<th>Required implementation</th>
<th>Course Offering required</th>
<th>Course required</th>
<th>Student testing required</th>
</tr>
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<tbody>
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<td>21</td>
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<td>7</td>
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<td>2002 Survey</td>
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<td>2004 Survey</td>
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<td>2009 Survey</td>
<td>44</td>
<td>34</td>
<td>15</td>
<td>13</td>
<td>9</td>
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</tbody>
</table>

Note: Course offering required indicates states requiring course to be offered. Course required indicates that the course is part of graduation requirements.

Table 2 showed that the number of states requiring a high school course for graduation had grown to 13. Since 1998, approximately one state per year had mandated course modifications to include personal finance in some course. A closer look showed that not all 13 states mandated courses require testing. Although 13 states required a course that included some form of personal finance, each state’s program was completely independent of another state’s program. Although many personal finance requirements were added into an economics course, vast differences in curriculum and educators existed.

Table 3 (Peri, 2009) dissected states’ reports into information relevant to individual states. Table 3 showed that individual states did not follow a progression of: standards, guidelines, or proficiencies; standards required to be implemented by districts; high school courses required to be offered; high school courses required to be taken; and required student testing (Peri, 2009).
Table 3


<table>
<thead>
<tr>
<th>State</th>
<th>Included in state standards</th>
<th>Required implementation</th>
<th>Course offering required</th>
<th>Course required</th>
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<td>North Carolina</td>
<td>Yes, HS only</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>State</th>
<th>Included in state standards</th>
<th>Required implementation</th>
<th>Course offering required</th>
<th>Course required</th>
<th>Student testing required</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Ohio</td>
<td>Yes, HS only</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Oregon</td>
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<td>No</td>
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<tr>
<td>South Carolina</td>
<td>Yes, MS&amp;HS</td>
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<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>South Dakota</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tennessee</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>Texas</td>
<td>Yes, HS only</td>
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<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Utah</td>
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<tr>
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<tr>
<td>Washington</td>
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</tr>
<tr>
<td>West Virginia</td>
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</tr>
<tr>
<td>Wyoming</td>
<td>Yes, HS only</td>
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<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Summary: 44 States, 34 States, 15 States, 13 States, 9 States

Notes: Legend: HS – High School, MS – Middle School.

Of the nine states that required testing, Kentucky, Missouri, Oregon, and West Virginia did not require courses to be offered in personal finance; and of course, students were not required to take such courses (Peri, 2009). In Ohio, students were tested based on guidelines, standards, or proficiencies that were not required to be incorporated into existing courses nor were courses required to be offered (Peri, 2009).

Illinois, Maryland, New Jersey, New York, Oklahoma, South Dakota, and Virginia were the seven states that had guidelines, required implementations, courses offered, and courses mandated for personal finance, yet did not require students to be tested (Peri, 2009).
National Initiative

As mentioned earlier, The National Financial Capability Challenge (National Financial Capability Challenge 2010b) is part of the President’s Advisory Council on Financial Literacy. This online program provided a Toolkit which included lesson plans, online games, and teacher guides for instruction, as well as other tools to engage students in learning. Educators may utilize any resources from the Toolkit. One key concept is the best practices portion of the site. Sharing ideas and success stories allows fellow educators the opportunity to use programs shown to be successful with other educators. Students test their knowledge using The Challenge online examination available every spring. The 2010 exam session tested over 76,000 students in the U.S. Data from The Challenge is shown in Table 4 regarding top scoring states. With average scores above 78%, Idaho and South Dakota take the top two places for state averages on The Challenge. It should be noted that not all schools in any state participated in The Challenge.

Table 4

<table>
<thead>
<tr>
<th>State</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>78.74%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>78.58%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>77.59%</td>
</tr>
<tr>
<td>Oregon</td>
<td>77.14%</td>
</tr>
<tr>
<td>Utah</td>
<td>76.78%</td>
</tr>
</tbody>
</table>

Accounting for how students are selected for The Challenge has not been addressed. Students in varying classes may be taking the challenge and thus changing the average for any state (National Financial Capability Challenge, 2010a). Another consideration is the level of instruction and preparation given to students before the challenge. The National Financial Capability Challenge (2010a) web site offers many lesson plans and resources for instructors.
Information and data was not collected to indicate what amount of preparation for The Challenge was provided by instructors.

Requirements to Teach Personal Finance

Of the 13 states requiring a personal finance (PF) course, many vary on requirements of instructors who teach the course as well as topics covered in the course (Mandell, 2008a). Another variation found was the PF requirement being part of another course (e.g., Economics) or as a standalone course dedicated to personal finance (Mandell, 2008a).

Although Idaho’s personal finance was taught with economics, other high-scoring states on the National Financial Capability Challenge (2010a) required standalone courses in personal finance. Low-scoring states of the 13 states that require a personal finance course had personal finance as part of an economics course (Peri, 2009). Mandated course curriculum requirements varied by state. For example, Oklahoma had a 14-criteria “passport” required for graduation, while other states’ departments of education had little, if any, information available on topics to be covered in courses.

Non-traditional Educational Options

Bernheim, Garrett, and Maki (2001) found in a survey of Merrill Lynch customers that individuals who attended high school in a state that mandated personal financial education had a tendency, in middle-age, to save a higher percentage of their income than others. Mandell (1998) found that in the Jump$tart Coalition 1997 data, students in states mandating consumer education or personal finance did not show a higher mean financial literacy score than those students living in states where a course was not mandated by the state.

An analysis of the Jump$tart Coalition’s 1997 data in a study by Tennyson and Nguyen (2001) found no association with average state score and overall mandates. They did, however,
find that states mandating a specific course in personal finance were associated statistically with higher average scores. Mandell (2008a) found when looking at all Jump$tart data that students who played a stock market interactive game achieve approximately 3-4 percentage points higher than all students, translating into a 6-8% increase in financial literacy. The actual reason for an increase was not known but believed to be from interactive game(s) that stimulated interest and attention in investment-related portions of personal finance (Mandell, 2008a).

Mandell (2008a) stated that since investment games seem to increase scores of financial literacy, courses designed for personal finance should be more interactive and fun; and focus should be relevant to current real-world issues and events. Mandell reported that some individuals believed that students had little to no interest in mortgages, investments, and retirement. Since little relevance was seen, students retained little of what they learned in the class once a final exam had been completed.

**Trends in Financial Literacy Education**

The size and scope of response of public and private organizations to the need for financial education was impressive. Large amounts of money, time, energy and efforts should warrant great accomplishments. That was not the case with financial literacy (Fox & Bartholomae, 2008). Many financial literacy programs in use today have not been studied and researched. Educators may not be capable of making prudent recommendations for future educational policy without needed research for financial literacy education courses (Fox & Bartholomae, 2008).

Fox and Bartholomae (2008) suggested that all programs use an evaluation with a common framework. The Jacobs’s five-tier evaluation was recommended for this evaluation instrument. Jacobs’s evaluation was designed to allow programs, such as financial literacy
educational programs, to be evaluated at different stages of development to work together to establish commonality.

Jacobs’s evaluation process has five distinct tiers. The first tier is the pre-implementation phase (Jacobs, 1998). This phase defines a need and an expectation of how this need will be addressed and how potential success of such a program is to be evaluated. The second phase of the process is the accountability tier. Information regarding cost of the program, basic program participant information, and education and service provided is gathered to document who the program will reach and in what way (Jacobs, 1998). This tier is important for stakeholders to determine if the desired recipients, those needing a program, actually were receiving the program. This data also provides immediate feedback regarding the potential outcome of the program with immediate data on participants and individuals sponsoring or mandating programs.

The third tier of Jacobs’s evaluation is the program clarification phase. It is designed for organizers and developers of educational programs (Jacobs, 1998). During this phase, developers have the opportunity to make needed changes to any portion of such programs. Changes can include items pertaining to missions, goals, strategies, and objectives. During this tier a determination can also be made to see if a target needs to be readdressed or restated. Jacobs (1998) indicated this is the time for participant program evaluation. This allows organizers and developers clarification needed to increase or decrease depth of topics discussed during the educational process.

The fourth tier of the process is the achieving outcomes phase (Jacobs, 1998). This tier is for determining changes, if needed, among participants after the evaluation phase. Attribute changes to the program and provide staff with information for program improvement also occurs. Long-term educational benefits would be determined in this step.
The fifth tier of the process is the progress-toward-measures phase (Jacobs, 1998). This tier measures overall objectives and desired outcomes. Without earlier tiers, this process would be incomplete due to possible missing information regarding utilization of the program. An end result with clear and measurable outcomes must be established as the goal of the program. Without clear and measurable goals, measuring outcomes would be impossible (Jacobs, 1998).

The most common approach to gathering data for measures is to have information gathered through follow-up at specific times during and after programs (Jacobs, 1998). For high school programs, this is very difficult as well as expensive. Jacobs (1998) identified this time as vital to the process to show success or failure of programs. This data and measurement of the programs is needed for support, further research, and financial backing from funders and stakeholders.

Financial Literacy in Georgia

Georgia is one of 13 states that mandate a personal finance course in public high schools (Peri, 2009). Georgia includes personal finance in required economics courses for high school students (Georgia Council on Economic Education, 2010). The 2009-2010 school year was the last year that teachers certified only in social studies were allowed to teach economics in Georgia. New regulations phased into place over the past few years now allows certified business education, marketing, and economics teachers to teach economics (Georgia PSC, 2010).

By making changes, Georgia’s consortium for Personal Financial Literacy – a part of Georgia Council on Economic Education - (Georgia Council on Economic Education, 2010), focuses on trends and seems concerned about individual citizen’s financial futures. Immediate plans for change would seem counterproductive without giving the current system time to develop and see if test data shows improvement in scores of personal finance and economics.
Independent Variables

The independent variables (IVs) used in this study was gender (male/female), race (Latino/Non-Latino), personal bank account ownership (yes/no), socioeconomic level (self-reported participation in free and reduced lunch program), paid work experience, and time to complete survey. IVs are valuable to researchers because they identify members of groups who may behave in similar or opposite ways (Alreck & Settle, 1995).

Gender was the first IV. A majority of both females and males consult their partners when making investments (Hira & Loibl, 2008). Much research has been conducted regarding the role of gender in decision making and investment behavior (Hira & Loibl, 2008; Mandell, 2008a).

The second IV was race. Subcategories of this variable included Latino and Non-Latino. Research on the various subgroups indicated that differences exist in the cultures of origin (Xiao, 2008). Although Hispanic Americans will be one subcategory in this survey, it must be understood that many different cultures were placed together to form the Non-Latino (other) category for research (Bowen & Lago, 1997). The student population at the subject high school were approximately 65% Latino, 30% Caucasian, and 5% other. To prevent statistical errors, races were divided into two larger groups. Information regarding financial literacy related to race may help influence future research and initiatives.

The third IV was personal bank account ownership. Having a banking account is one of the first steps toward financial security (Hogarth, Anguelov, & Jinkook, 2004). Demographic information obtained as part of the survey included the question if the student owns, in his/her name, a bank account of any type such as checking, saving, college savings, or certificate of deposit.
The fourth IV was student’s socioeconomic level and was determined by participation in governmental financial services receiving a free or reduced lunch. Low-income families, those receiving governmental financial assistance, often face difficulties due to lack of assets and insurance (Garasky, Nielsen, & Fletcher, 2008). Although their financial literacy level may measure high, this does not mean they are wealthy.

The fifth IV was paid work experience. No specific research literature was available to support this independent variable; the researcher included paid work experience to determine if statistically significant differences exist in financial literacy based on paid work experience.

The sixth IV was time to complete survey. Previous research by Terranova (1972) showed little to no correlation of time to complete a test and the score of the test taker.

**Chapter Summary**

In Chapter Two, the researcher has shown how financial literacy has progressed in secondary education, discussed learning theories, and explored Jump$Start Coalition of Financial Literacy. The researcher also investigated current financial literacy programs, needs to consider when teaching young adults, and national and state actions toward financial literacy. Independent variables were set and included gender, race, and personal bank account ownership, socioeconomic level, work experience, and time to complete survey. Other decisions were made to use the theory of reciprocal determinism as the learning theory, and the Jump$Start Coalition Survey of Personal Financial Literacy Among Students as the survey to be used for the dependent variable.
CHAPTER III

METHOD

While some studies indicated the importance of financial literacy and financial behaviors (Hanna & Chen, 2008; Tabb, 2007), none were found dealing with communities and learning experiences that may influence financial literacy in high school seniors. For this study, financial literacy scores were evaluated to determine if demographic factors influence financial literacy by comparing demographic data to survey scores of the Jump$tart Coalition Survey of Personal Financial Literacy Among Students.

Purpose Statement

The purpose of this study was to determine the financial literacy of seniors in a rural Georgia high school and to make independent comparisons to determine if any differences exist based on these variables. The dependent variable in this study was the comprehensive score obtained on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. The independent variables used in this study were gender (male/female), race (Latino/Non-Latino), personal bank account ownership (yes/no), socioeconomic level (self reported participation in free and reduced lunch program), paid work experience, and time to complete the survey.
Research Questions

This study was guided by the following research questions:

1. What was the financial literacy of high school seniors at a rural Georgia high school as determined by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students?

2. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on gender?

3. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on race?

4. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on personal bank account ownership?

5. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on socioeconomic level?

6. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on paid work experience?

7. What was the correlation between scores on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students and time needed to complete the survey?

Design

The design of this research project was survey research. As surveys use questionnaires, benefits included the low cost of the research as well as the ease of reporting the data (Hill, 2001). The survey was completed with paper, pencil, and Scranton. The benefit of using a paper version was easy access without possible technology complications. A drawback to using this
form of survey was possible data entry errors. Data was checked after entry to ensure accuracy. Participants, instrumentation, and procedure for the survey are described below.

**Participants**

For some studies, a sample of a population is studied. For this study, a convenience sample was surveyed. The population for this study was the twelfth grade students attending a northwest Georgia high school.

The population for this study consisted of the 292 high school seniors in the academic year 2011-2012 attending a northwest Georgia high school. In November 2011, the school had 1436 high school students in grades 9-12. A convenience sample of the senior high school student population was used. Participation was voluntary. Any student under age 18 participated with parent permission. As permission was needed for those less than eighteen years of age, consideration was made to delay the study until later in the school year. After careful thought, the decision was made to conduct the research in November as it was not a busy testing time when compared to spring. Of the 292 seniors, 151 participated in the survey for a response rate of 52%. Reasons for non-participation included no parental permission, students not willing to participate, and teacher’s assignment did not allow time for participation.

The English Language Arts department’s senior class teachers agreed to allow students time in class to participate in the study. Three of the five senior English teachers allowed participation.

As noted, the Jump$tart Coalition (2009) survey high school version was given only to seniors because of the seniors’ immediate future participation in the economy on an individual basis. Most seniors are expected to either enter the workforce or continue with post-secondary education. Money management is often vital even when entering college or any type of
educational program beyond high school since this education plan is not publicly funded and usually paid for by the student or the student’s parents.

**Instrumentation**

Creswell (1994) stated that with survey research, the researcher must choose to use a self-designed instrument, a modified instrument, or an instrument developed by someone else. If the researcher is using another’s instrument, the researcher should first contact the author(s) of the instrument and obtain a copy of and permission to use the survey instrument. Modifications may be necessary to meet the needs of the researcher’s own study.

A construct is something established by the mind as a theoretical entity, working hypothesis, or concept (Merriam - Webster, 2010). Since a theoretical construct is a concept that may be inferred from an observed phenomena (Gall, Gall, & Borg, 2007), the instrument selected should measure the criteria being studied. This study used the Jump$tart Coalition Survey of Personal Financial Literacy Among Students (Jump$tart, 2009) (See Appendix F). The survey instrument used to gather data for this study was the Financial Literacy survey from the Jump$tart Coalition, used nationally since 1997. Many researchers have used this test (Beverly & Burkhalter, 2005; Mandell, 2001; Mandell, 2009). The Jump$tart Coalition Survey of Personal Financial Literacy Among Students was chosen for the following reasons:

(a) The number of times it had been administered nationally

(b) The alignment with the National Standards for Family and Consumer Sciences Education

(c) The availability of psychometric information and

(d) The high school version of the survey is administered to seniors only.
The Jump$tart Coalition began in December 1997 and determined that the average high school student lacked the basic knowledge to be financially literate (Jump$tart 2009). The coalition was formed to "develop a strategic plan for improving the quality and extent of curriculum modules for personal finance education in the nation’s schools, grades K-12” (Jump$tart, 2011d). A new Jump$tart survey is currently in the developmental process (Jump$tart, 2011d). Concerns about the administrative burden to administer the paper and pencil survey as well as the potential to compromise accuracy in transferring data by hand are some of the concerns the Jump$tart coalition have. Other concerns are addressed in the reliability and validity sections that follow.

While the Jump$tart Coalition Survey of Personal Financial Literacy Among Students measures six different aspects, only the scores were used in this study. The cumulative score gives a holistic approach to financial literacy instead of focusing on the different aspects of financial literacy (Mandell, 2006a). However, for better reader understanding, the six aspects are explained here: (a) Financial Responsibility and Decision Making, (b) Income and Careers, (c) Planning and Money Management, (d) Credit and Debt, (e) Risk management and Insurance, and (f) Saving and Investing. Mandell (2008a), founder of the Jump$tart Coalition’s Survey for Financial Literacy, defined and described each of the six aspects in the following paragraphs.

Financial responsibility and decision making is the ability to manage impulses and control adverse actions affecting financial decisions. An example of this would be to receive a first paycheck and spend the entire check on an unneeded frivolous item of desire. Once the initial purchase is made, regret and feelings of remorse begin. This can be further complicated by financial requirements being unmet due to lack of money remaining for expenditures.
Income and careers is presented as having the ability and knowledge to obtain employment and have a vision or long-term goal about a career. Knowing that various taxes are taken out of income must also be understood. This portion of the survey takes into account that one must obtain a job, differentiate between gross and net income, and career development is a life experience.

Planning and money management is the ability to know how to plan for expenses and budgeting. Money earned must be budgeted to meet expected as well as unexpected expenses. Fixed expenses such as a car payment and flexible expenses such as entertainment can be planned to meet the goals of the individual.

Credit and debt is the understanding about credit use, overuse of credit, credit history, and credit scores. Credit users face rules, regulations and guidelines set by government as well as credit issuing companies. If amounts are charged, those using the credit are obligated to repay the money in a manner set by the mentioned stakeholders. Overuse of credit can lead to bankruptcies and poor credit scores. Credit scores affect the borrower’s ability to obtain credit, interest rates, and credit terms. Credit history can also affect the ability to borrow money.

Risk management is defined by Jump$tar(t (2007) as “The process of calculating risk and devising methods to minimize or manage loss, for example, by buying insurance or diversifying.” Insurance, subject to individual policy guidelines, assists with financial loss of varying items such as but not limited to medical, property, income, and businesses.

Savings and investing includes taxes, investments, risk and return, liquidity of investments, short-term and long-term investments, and strategies for long-term planning. Survey participants are tested to know the difference in saving for a new T.V., a home, or retirement. Different types of individual investments are influenced by the saver or investor
based on personal decisions regarding liquidity, risk tolerance, and goals for their investments. Different investments such as savings deposits, stock markets, and purchases of home or other personal property may vary with needs, desires, and anticipated return on investment. The ability, or lack of ability, to create meaningful savings and investments is often attributed to individual characteristics that have not been acquired through prior experiences and training Jump$tart (2007).

**Reliability**

Reliability of an instrument means the instrument produces results consistently over time and over varied circumstances. Reliability is the degree to which measures are free from random error and give consistent results with an instrument designed to measure a given subject (Predmore, 2000). Trochim (1999) indicated that reliability cannot be a calculated definite; it must be an estimate.

Lucey (2005), an independent researcher, evaluated the Jump$tart Coalition Survey of Personal Financial Literacy Among Students in 2005 using data from the Jump$tart Coalition for Financial Literacy 1997 and 2000 results. The questionnaire was evaluated for consistency, validity, and social bias. No other research was found to determine the reliability and validity for this instrument.

Lucey (2005) determined that the questionnaire had a moderately high internal consistency with (α=.78) when taken as a complete survey. For this research, Kuder-Richardson Formula 20 (K-R 20) was to measure reliability since this survey has correct and incorrect answers as suggested by S. F. Olejnik (personal communication, July 15, 2011). This instrument had no questions removed from the survey due to this K-R 20 analysis was KR=72. One concern to the researcher was low scores of the survey and the effect on the K-R 20 analysis.
Cronbach’s alpha was considered but not used as it is used to check reliability on Likert-Type Scale surveys where no correct or incorrect answers exist (Gliem & Gliem, 2003).

As noted previously, the survey’s six subgroups were not separated for the desired research of this study. The instrument consisted of 31 multiple choice questions designed to test personal financial literacy. As part of the Jump$tart Coalition Survey of Personal Financial Literacy Among Students, data was collected from test takers with classification questions. These classification questions included demographic, future plans, SAT scores, debit and credit card usage, and other categorical information (Jump$tart 2011c). Instead of using all 25 of the classification questions, only a few were included in order to classify demographic and personal investing factors. Appendix E (Survey part 1, Participant demographic information sheet) shows the demographic data portion of the survey to be used by the researcher to collect data from survey participants. Question number 4 became necessary when the researcher discovered the school board policy of not providing identification of participants in the free/reduced lunch program within the school district, hence, requiring the self report of this information. The self reported free/reduced lunch was 50% recipient of free/reduced lunch and 50% not a recipient of free/reduced lunch. Find The Best, (2012) school reports show the high school where the study occurred as 65% receiving free/reduced lunch.

Since the beginning of this survey, The Jump$tart Coalition for Personal Financial Literacy has begun to question the reliability of the instrument. The 2010 Annual Report of Jump$tart Coalition for Personal Financial Literacy (Jump$tart 2011d) reported concerns about whether state samples were of sufficient size to be reliable and whether they accurately reflected the demographics of the state.
Validity

Validity can be defined as the extent to which an instrument measures what it is intended to measure (Gall, Gall, & Borg, 2007). Although easily explained, validity may be lost in the translation from concept to reality. Lucey (2005) performed extensive research on the instrument to insure validity. Lucey’s (2005) research found that the questionnaire had face and internal content validity. It was also found that the overall internal content validity was moderately high (α=.78). Although not high, Lucey’s internal validity was the only information found referencing the survey.

According to Creswell (2009), three common forms of validity should be sought when using an existing instrument; content, predictive or concurrent, and construct. Internal content validity determines whether survey items measure what they are designed to measure (Creswell 2008, 2009; Knapp & Mueller, 2010). Predictive or concurrent validity ensures scores predict a criterion measure or relate to an established criterion, while construct validity determined whether constructs being measured have meaningful purpose in practice or are significant (Creswell 2008, 2009; Knapp & Mueller, 2010). Creswell (2008) indicated that scores must be assessed both practically as well as statistically to achieve construct validity. A statistical procedure for this study could be testing a theory such as whites may score higher than other races in financial literacy.

Validity issues are concerned with validating if an instrument measures what it is intended to measure (Creswell, 2008, 2009). To address potential validity issues, such as question interpretations that may differ among participants, a pilot study (Creswell, 2008) was conducted with a group of 38 secondary Business and Computer Science students. A question-and-answer-session was conducted directly after the survey administration to obtain feedback.
Participants were asked about the ease of taking the survey, if questions existed that were ambiguous, and if other concerns existed on the survey. As a result of the pilot survey, two misspelled words were corrected and answers that happen to not be printed on the same page as the question were modified to ease comprehension.

As with reliability, Jump$start is now concerned about the validity of the survey. The 2010 Annual Report of Jump$start Coalition for Personal Financial Literacy (Jump$start 2011d) reported validity concerns regarding whether the test questions correctly reflected a student’s level of financial literacy due to question construct and subject matter balance. Although concerns exist, this was still the strongest survey found by the researcher and was used for this research.

**Procedures**

This study was conducted with participants from one high school in the northern part of the State of Georgia. Therefore, Institutional Review Board (IRB) approval was obtained from the University of Georgia and from the participating school district. The Office of the Vice President for Research at The University of Georgia (2011) required that an authorization letter or IRB approval from participating institutions be provided with an initial IRB approval (See Appendix G). Thus, a research proposal was submitted to the selected school district as well as high school prior to submission of the IRB approval request to the University of Georgia. The school district as well as the high school reviewed and approved the research proposal in October, 2011 (See Appendices H and I).

Once UGA IRB approval was obtained, data collection began in November, 2011. A computerized list of all seniors attending the survey school was obtained from the office of the
Student Data Controller at the high school. A list of birthdays of all seniors was obtained to
determine which students would need to have parental permissions to participate in the survey.

Verbal permission from teachers in the English Language Arts department was obtained
and received confirmation of their willingness to allow their students class time to participate in
the study. As mentioned before, most teachers allowed students to participate.

Permission to use the Jump$tart Coalition Survey of Personal Financial Literacy Among
Students was obtained from the survey author, Lewis Mandell (See Appendix J). An
informational letter (See Appendix D) was sent home to all seniors two weeks prior to the
scheduled time to take the survey. A parental permission form (See Appendix A) was included
with the informational letter if the student was under the age of 18 on or before the survey date.
Students over the age of 18 did not require parental permission. Another copy of this letter was
sent home if students had not returned the original letter signed. Students 18 and over were
given the research consent form (See Appendix B) for participation in the survey.

Data collection and organization were as important as the instrument (Dillman, 1978).
Survey administration began with students entering the lecture hall at the high school. Once
student permission forms, as well as student assent forms, were checked, students were given an
answer sheet and asked to sit until time for test administration. Once everyone was ready, a
scripted information and instruction sheet was read to the students by the researcher (See
Appendix L).

Data Analysis

In order to describe high school financial literacy, as described in question one of this
study, descriptive statistics was used. The mean, standard deviation, and range of financial
literacy were reported. This provided an overview of the participants’ financial literacy.
The second, third, fourth, fifth, and sixth questions of this survey were to determine if financial literacy had a significant relationship between gender, race, and personal bank account ownership, socioeconomic level, and work experience existed. A t-test was considered to be a descriptive statistic. The use of the t-test allowed the researcher to determine whether or not a significant mean difference existed between two groups using only one independent variable (Gall, et. al., 2007). A t test was used to determine if differences existed.

An alpha level of .05 was used in this study. Moore (2007) explained that an alpha level of .05 meant that a statistically significant result would indicate that the observed value would not happen more than 5% of the time therefore; it was not likely to happen by chance. The use of a stronger alpha level such as .01 was more stringent as the observed value would not happen more than 1% of the time. The use of a weaker alpha level such as .1 was less stringent as the observed value would happen more than 10% of the time. Effect size, which is the magnitude or practical significance of the results, was measured using Cohen’s d. Cohen’s d uses a fraction of a standard deviation as a measure of effect size and is used when only two groups are involved. Although Cohen provided guidelines for interpreting whether the effect is small, medium or large, Keppel and Wickens (2004) warned that they are only standards and must be interpreted with caution. The guidelines provided by Cohen were defined as a small effect is d=0.2, a medium effect is d=0.5, and a large effect is d=0.8.

**Level of Significance**

The level of significance was important for multiple reasons. It was important to raise the level high enough to prevent a Type I error. A type I error is to reject the null hypothesis when it is not warranted (Gall, et. al., 2007). Likewise, it was important not to raise the level so high as to cause a Type II error. A Type II error is when one fails to reject the null hypothesis
when it is false (Gall, et. al., 2007). With educational research, a level of significance is typically set at .05 ($\alpha=.05$) (Gall, et. al., 2007). For this study the level of significance was $\alpha=.05$.

**Independent Variables**

Independent variables for this study were (a) race, (b) gender, (c) personal bank account ownership, (d) socioeconomic level, (e) paid work experience and (f) time to complete survey. Table 5 shows how independent variables were categorized. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. Appendix K shows the coding for data into the SPSS program. Table 5 shows the Objectives/Questions, Independent Variables, Dependent Variables, as well as the statistical analysis used for calculation.

Table 5

*Data Analysis for Research Questions*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Statistical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What was the financial literacy of high school seniors at a Georgia high school as determined by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students?</td>
<td>Test score of the Jump$tart Coalition Survey of Personal Financial Literacy Among Students (Survey Score)</td>
<td>Mean St. Dev. Range</td>
<td></td>
</tr>
<tr>
<td>2. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on gender?</td>
<td>Gender Male, Female</td>
<td>Survey Score</td>
<td>$t$-test</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Question</th>
<th>Variable</th>
<th>Survey Score</th>
<th>Test Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was there a significant difference in the financial literacy of high</td>
<td>Race</td>
<td></td>
<td>t-test</td>
</tr>
<tr>
<td>school seniors at a rural Georgia high school, based on race?</td>
<td>Latino, Non-Latino</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there a significant difference in the financial literacy of high</td>
<td>Personal Bank Account Ownership</td>
<td></td>
<td>t-test</td>
</tr>
<tr>
<td>school seniors at a rural Georgia high school, based on personal</td>
<td>Yes, No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bank account ownership?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there a significant difference in the financial literacy of high</td>
<td>Self reported Recipient of</td>
<td></td>
<td>t-test</td>
</tr>
<tr>
<td>school seniors at a rural Georgia high school, based on socioeconomic</td>
<td>Free or reduced lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>level?</td>
<td>Yes, No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there a significant difference in the financial literacy of high</td>
<td>Paid work experience</td>
<td></td>
<td>t-test</td>
</tr>
<tr>
<td>school seniors at a rural Georgia high school, based on paid work</td>
<td>Yes, No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>experience?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What was the correlation between scores on the Jump$tart Coalition</td>
<td>Test proctor record of time</td>
<td></td>
<td>Pearson</td>
</tr>
<tr>
<td>Survey of Personal Financial Literacy Among Students and time needed to</td>
<td>to complete survey by student</td>
<td></td>
<td>correlation</td>
</tr>
<tr>
<td>complete the survey?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

The research design and plan for data analysis were outlined in this chapter. Population and procedures were discussed. The methods to determine financial literacy were described and
the methods of analyses were explained. Data analysis used t-test based on the possible number of responses. Effect Size = .33 and Level of Significance = .05. Analysis results were reported in Chapter IV.
CHAPTER IV
ANALYSIS OF DATA

The purpose of this study was to describe the level of financial literacy of high school seniors in a rural northwest Georgia town. Financial literacy, the study’s dependent variable was measured using the Jump$tart Coalition Survey of Personal Financial Literacy Among Students (Jump$tart, 2011c). Independent variables included students’ gender, race, and personal bank account ownership, socioeconomic level, paid work experience, and time to complete survey.

This chapter provided an analysis of the data obtained for each research question. Data analysis techniques included descriptive statistics, $t$ tests, and Pearson Correlation. Analyses were conducted to determine if gender, race, and personal bank account ownership, socioeconomic level, paid work experience and time to complete the Jump$tart Coalition Survey of Personal Financial Literacy Among Students impacted student scores. An alpha level of .05 was used for statistical analyses. The research questions that guided the analysis of this study were as follows.

Research Question 1

What was the financial literacy of high school seniors at a rural Georgia high school as determined by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students?

Table 6 presents the descriptive statistics for all students in the study on the financial literacy levels. The overall literacy scores had a possible range from 0 to 100. According to the guidelines established by the Jump$tart coalition, scores below 70 indicated a non-pass score on the survey while scores of 70 and above were considered passing. Scores obtained by this
A sample of students ranged from 19 to 77. Survey scores and their frequency are listed in Table 7.

The mean score for this sample equaled 50.5 indicating that these students were not financially literate as measured by this instrument.

Table 6

*Descriptive Statistics for Jump$tart Survey Scores*

<table>
<thead>
<tr>
<th>Survey Score</th>
<th>N</th>
<th>Percentage %</th>
<th>Mean</th>
<th>SD</th>
<th>d</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>74</td>
<td>49</td>
<td>49.8214</td>
<td>13.9788</td>
<td>.09</td>
<td>19</td>
<td>77</td>
</tr>
<tr>
<td>Female</td>
<td>77</td>
<td>51</td>
<td>51.1429</td>
<td>12.8971</td>
<td>.09</td>
<td>19</td>
<td>77</td>
</tr>
<tr>
<td>Latino</td>
<td>80</td>
<td>53</td>
<td>46.0875</td>
<td>12.5094</td>
<td>.74</td>
<td>19</td>
<td>74</td>
</tr>
<tr>
<td>Non-Latino</td>
<td>71</td>
<td>47</td>
<td>55.4648</td>
<td>12.7064</td>
<td>.39</td>
<td>26</td>
<td>77</td>
</tr>
<tr>
<td>Personal Bank Account Ownership</td>
<td>86</td>
<td>57</td>
<td>52.7209</td>
<td>13.2111</td>
<td>.39</td>
<td>26</td>
<td>77</td>
</tr>
<tr>
<td>No Bank Account Ownership</td>
<td>65</td>
<td>43</td>
<td>47.5538</td>
<td>13.1981</td>
<td>19</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>Free/Reduced Lunch</td>
<td>75</td>
<td>50</td>
<td>46.9333</td>
<td>13.0502</td>
<td>.54</td>
<td>19</td>
<td>74</td>
</tr>
<tr>
<td>Non Free/Reduced Lunch</td>
<td>76</td>
<td>50</td>
<td>54.0132</td>
<td>12.8981</td>
<td>26</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Paid work experience</td>
<td>78</td>
<td>52</td>
<td>51.9359</td>
<td>13.9613</td>
<td>.22</td>
<td>19</td>
<td>77</td>
</tr>
<tr>
<td>No paid work experience</td>
<td>73</td>
<td>48</td>
<td>48.9589</td>
<td>12.7087</td>
<td>19</td>
<td>77</td>
<td></td>
</tr>
</tbody>
</table>

Table 7

*Frequency of Scores Achieved on Jump$tart Survey*

<table>
<thead>
<tr>
<th>Score</th>
<th>Frequency</th>
<th>Score</th>
<th>Frequency</th>
<th>Score</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td>2</td>
<td>55</td>
<td>20</td>
<td>36</td>
<td>10</td>
</tr>
<tr>
<td>74</td>
<td>5</td>
<td>52</td>
<td>14</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td>71</td>
<td>7</td>
<td>48</td>
<td>14</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>68</td>
<td>8</td>
<td>45</td>
<td>6</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>65</td>
<td>7</td>
<td>42</td>
<td>12</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>61</td>
<td>11</td>
<td>39</td>
<td>9</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>58</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 2

Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on gender?

An independent-samples t test was conducted to compare Jump$tart Survey scores in males and females. There was no significant difference in the scores for males (M=49.8214, SD=13.9788) and females (M=51.1429, SD=13.8971) conditions at the .05 level; \( t(149)=.603, \ p = .548, \ d = .09. \)

Research Question 3

Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on race?

An independent-samples t test was conducted to compare Jump$tart Survey scores among Latinos and Non-Latinos. There was a significant difference in the scores for Latinos (M=46.0875, SD=12.5094) and Non-Latinos (M=55.4648, SD=12.7064) conditions at the .05 level; \( t(149)=.826603, \ p = .000, \ d = .74. \)

Research Question 4

Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on personal bank account ownership?

An independent-samples t test was conducted to compare Jump$tart Survey scores among students with personal bank account ownership. There was a significant difference in the scores of students with personal bank account ownership (M=52.7209, SD=13.2111) and no personal bank account ownership (M=47.55.38, SD=13.1981) conditions at the .05 level; \( t(149)=2.381, \ p = .019, \ d = .39. \)
Research Question 5

Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on socioeconomic level?

An independent-samples t test was conducted to compare Jump$tart Survey scores among Latinos and Non-Latinos. There was a significant difference in the scores of free/reduced lunch recipients (M=46.9333, SD=13.0502) and non-free/reduced lunch recipients (M=54.0132, SD=12.8981) conditions at the .05 level; \( t(149)=3.3536 \), \( p = .001 \), \( d = .54 \).

Research Question 6

Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on paid work experience?

An independent-samples t test was conducted to compare Jump$tart Survey scores among Latinos and Non-Latinos. There was not a significant difference in the scores paid work experience (M=51.9359, SD=13.9613) and no paid work experience (M=48.9589, SD=12.7087) conditions at the .05 level; \( t(149)=1.367 \), \( p = .174 \), \( d = .22 \).

Research Question 7

What was the correlation between scores on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students and time needed to complete the survey?

A Pearson correlation was calculated to determine relationship between student’s scores and time to complete the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. The Pearson Correlation was -.048. This negative number indicates a very slight decline in scores as time to complete survey increases. Figure 5 illustrates a scatterplot representing students’ survey scores and time to complete the survey.
Summary

This study indicated that seniors attending a northwest Georgia high school were not financially literate as measured by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. Independent variables of race, personal bank account ownership, and socioeconomic status revealed a statistically significant difference in financial literacy. Independent variables of gender and paid work experience showed no statistical difference in these groups. The independent variable of time used to complete the survey had a very slight negative correlation with student scores.
CHAPTER V

RESULTS, DISCUSSION, RECOMMENDATIONS, AND SUMMARY

This chapter restates the purpose, rationale, and research questions of the study. A summary of the research study follows. Results and implications for the future are addressed. This study concludes with discussion, recommendations, and a final summary.

Purpose, Rationale, and Research Questions

The purpose of this study was to determine the financial literacy of a rural northwest Georgia high school’s seniors and then to determine effect of gender, race, personal bank account ownership, socioeconomic level, paid work experience, and time to complete survey correspond to scores on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. The study used Bandura’s theory of Reciprocal Determinism (Bandura, 1977). This theory was selected for the comprehensive manner described in learning with many factors influencing the learning experience of the learner. The independent variables analyzed were gender, race, personal bank account ownership, socioeconomic status, paid work experience, and time to complete survey. The dependent variable was the survey score of the Jump$tart Coalition Survey of Personal Financial Literacy Among Students.

One way to understand financial literacy is to examine research. Studies of behaviors and knowledge of personal finance have helped economic systems for many years (Banks & O’Dea, 2010, Bernanke, 2009, Hopkins, 1980, Lusardi, 2009). Whether well thought out or unreasoned, actions regarding financial literacy have a lasting effect on individual, community, and regional economies. Financial literacy has been defined as knowledge about behaviors
relevant in money management to measure knowledge of income, money management, saving and investing, and spending and credit (Mandell, 2008a; Xiao 2008). For the purpose of this study, financial literacy is defined by the Jump$tart Coalition for Personal Financial Literacy (2007), as:

The ability to use knowledge and skills to manage one’s financial resources effectively for lifetime financial security […] Financial literacy refers to an evolving state of competency that enables each individual to respond effectively to ever changing personal and economic circumstances. (p. 1)

Financial literacy has a direct impact on the local economy. Northwest Georgia has suffered economically due to high levels of unemployment during an economic meltdown for local industries in recent years. Financial hardships for businesses have had a trickle-down effect on personal financial matters for the residents of the community as well. Foreclosures fill the newspaper as a result of this economic downturn and possibly some poor decisions made by individuals. In April 2012, the Dalton Daily Citizen News (2012), listed thirteen pages of home foreclosures in the legal section of the newspaper.

While not the only part of the financial literacy equation, individual savings can play an important role to financial fitness, especially during recession-like times. As a nation, the United States’ savings hovered above 5% of disposable income until 1993 (U.S. Bureau of Economic Analysis, 2009). This same report described savings rates as a percentage of disposable personal income going down to a low in 2005 of 0.4% and until rising again to 1.8% in 2008.

According to Clow (2009) making financial decisions with little or no background in personal finance can be very difficult. High School Seniors are at the point where they will be entering the next phase of their lives. Some may choose post-secondary education while others
may join the workforce. Either way, most are near the age where they can, and most likely will be held responsible for their financial actions. It is important for teachers as well as students to know that seniors will be entering a new part of their lives. Understanding the financial literacy of seniors in northwest Georgia is important for both the individual’s financial well-being as well as the community’s well-being. Without financially successful contributors to the economy, any economy will suffer. Jones and Newport (2006) found six predominate reasons for financial literacy among young adults. The six struggles with debt identified by Jones and Newport included student-debt payment struggles, saving money, lowering credit card debt, getting health insurance, and obtaining a place to live. For this study, literature linked to financial literacy was available for gender, race, and socioeconomic status. Limited research was available regarding time needed to complete the survey or test.

Using Bandura’s (1977) theory of reciprocal determinism, teachers can build lessons of personal financial literacy into a multitude of lessons. Bandura’s theory ties into the belief that differences in culture, familial behavior, and life experiences may be creating some of the differences in the learning opportunities for learners (Aizcorbe et al. 2003). Socioeconomically, differences in experiences and financial needs can contribute to life experiences and financial learning.

Currently, Georgia schools are mandated to teach personal finance (Georgia PSC, 2010). Most of this process occurs in Economics classes. Vitt, et.al. (2008), found 90 different programs regarding personal finance available for use by public school systems or other organizations. Many focused on school, community, organizations, and religious programs. With these available, it would be easy for teachers, coaches, club sponsors, or even administrators to introduce programs to the school. As Supiano (2008) said, something is better
than nothing. All experiences will in one way or another contribute to the personal financial learning of students. The purpose of this study was to determine the financial literacy of high school seniors. In addition, this study offers insight to which demographic data shows statistical significance in survey scores. With this information, teachers may be able to use this data to help students be successful in personal financial literacy. This study was guided by the following research questions:

1. What was the financial literacy of high school seniors at a rural Georgia high school as determined by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students?

2. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on gender?

3. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on race?

4. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on personal bank account ownership?

5. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on socioeconomic level?

6. Was there a significant difference in the financial literacy of high school seniors at a rural Georgia high school, based on paid work experience?

7. What was the correlation between scores on the Jump$tart Coalition Survey of Personal Financial Literacy Among Students and time needed to complete the survey?
Research Summary

This descriptive research study used a paper and pencil questionnaire to gather data at one point in time from seniors in a rural northwestern Georgia high school. Survey data identified participants’ financial literacy level. Survey results were summarized by gender, race, and personal bank account ownership, socioeconomic level, paid work experience, and time to complete survey. The survey was conducted in a high school lecture hall by the researcher. The survey was confidential for all participants with confirmed consent from all participants of the research study.

The questionnaire used to gather data for this survey was created by Lewis Mandell (Jump$tart, 2011d). The instrument was a 30-question survey that had correct answers. Answers chosen correctly by participants earned points. All points were combined to get a cumulative score for survey. The questionnaire measures six aspects of financial literacy. These aspects include: (a) Financial Responsibility and Decision Making, (b) Income and Careers, (c) Planning and Money Management, (d) Credit and Debt, (e) Risk management and Insurance, and (f) Saving and Investing Mandell (2006a). The instrument consisted of two different sections (See Appendices E and F). Part one included a demographic information questionnaire that participants completed on the independent variables of gender, race, and personal bank account ownership, socioeconomic status, and paid work experience. Part two of the survey contained the actual survey instrument that was used in this study.

The survey was not designed to measure the six aspects separately but as a whole to better understand the overall personal financial literacy level of each participant (Mandell, 2006a). Mandell described the minimum score of a financially literate individual to be 70 as
measured by this survey. The higher the score, the more financially literate the survey participant was believed to be.

Reliability as determined by Lucey (2005) was found to have an internal consistency with alpha coefficient of .78 when taken as a complete survey. Jump$tart Coalition (2011d) recently reported concerns of the test. These reports questioned if state samples were of sufficient size to be reliable and whether they accurately reflected the demographics of the state. Validity has been reported by Lucey (2005) with an alpha coefficient of .78. Here again, Jump$tart Coalition (2011d) has recently become concerned with the reliability of the survey. Their concerns were regarding correct reporting of student’s level of financial literacy due to question construct and subject matter balance. A new survey for Jump$tart is still in the developmental stages. Research is being conducted and this new instrument should be available in the near future.

The target sample was a convenience sample of all seniors at a rural northwest Georgia high school. All 293 members of the senior class were invited to participate with 151 choosing to actually complete the survey. Approval for the research was obtained from The University of Georgia’s institutional Review Board (IRB) prior to conducting the research (see Appendix G). Appropriate approvals were obtained at the district (see Appendix H), school (see Appendix I), and teacher levels for English Language Arts (ELA) courses. Students could choose to withdraw from participation of the study at any time.

During the planning phase of five weeks, ELA teachers agreed to allow students to participate in the survey. Distribution of the informational letter (see Appendix D) and parental permission form to those not yet age 18 on the planned date of the survey was completed (see Appendix A). Students 18 years of age or older as of the date of the survey were able to research
consent form themselves. Students that returned parental permission forms were asked to sign the minor assent form the day of the survey in order to participate.

Data were analyzed using a series of t-tests, descriptive statistics, and a Pearson correlation.

**Results**

The overall personal financial literacy level was the focus of research question one. The dependent variable had a range of 0 to 100. The mean for the dependent variable was 50.5 (SD=13.4094). The overall mean score indicated that the 151 students at this rural northwest Georgia high school were not financial literate as measured by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. The group mean was 50.4, thus falling below the 70 score of financial literacy as determined by The Jump$Start Coalition.

Research question two examined if differences existed in financial literacy of seniors based on gender. Of the 151 students surveyed 74 were males which constituted 49% of the participants and 77 were females which compromised 51% of the total subjects in the study. A t-test was used to determine if statistical significance existed in this group. No statistical significant differences were found in survey results based on gender. Male mean score equaled 49.8 while female mean score was 51.1.

Research question three examined potential differences in financial literacy of seniors based on race. With 151 students participating in the survey, 80 were Latino equaling 53% of the participants. The remaining 71 participants were Non-Latino compiling the remaining 47% of the survey participants. Statistical significance was found in this independent variable. Latino mean scores were 46.1 while Non-Latino scores were 55.5.
Research question four examined the independent variable of personal ownership of bank account and personal financial literacy level. Of the 151 students surveyed 86 respondents owned a personal bank account which constituted 57% of the participants while 65 of the respondents did not own a personal bank account which compromised 43% of the total subjects in the study. A t-test was used to determine if statistical significance existed in this group. A statistical significant difference was found in survey results based on personal bank account ownership. Participants with personal bank account ownership mean score was 52.7 while those without an account mean score was 47.6.

Research question five examined if differences existed in financial literacy of seniors based on socioeconomic level as measured by self reported participation in free/reduced lunch program at the high school. Of the 151 students surveyed 75 participated in the free/reduced meal program at the high school which constituted 50% of the participants and 76 did not participate in the free/reduced meal program which compromised 50% of the total subjects in the study. A t-test was used to determine if statistical significance existed in this group. A statistical significant difference was found in survey results based on socioeconomic level. Participants’ mean score receiving free or reduced lunch was 46.9 while those not receiving free or reduced lunch mean score was 54.0.

Research question six examined if differences existed in financial literacy of seniors based on paid work experience. Of the 151 students surveyed, 78 students with work experience constituted 52% of the participants while 73 survey participants had no work experience which constituted 49% of the total subjects in the study. A t-test was used to determine if statistical significance existed in this group. No statistical significant differences were found in survey results based on paid work experience.
Research question seven examined the correlation between scores on the survey and time needed to complete the survey. A Pearson correlation was used to determine the relationship. A correlation of -.048 was found. This very slight negative correlation shows that in this study, those taking longer to complete the survey scored slightly lower.

A final result was found regarding the instrument. Due to the low reliability scores as well as concerns from Jump$tart Coalition (Jump$tart, 2011d), the survey does need to undergo changes or be used limitedly in future research. The survey was created 15 years ago; and with new federal regulations regarding financial matters (Credit CARD Act, 2010), the survey needs to undergo an update.

**Discussion and Recommendations**

First and most important, this study shows that senior high school students of rural northwest Georgia are not financially literate. This finding mirrors findings of previous studies using this survey instrument (Jump$tart, 2011c; Mandell, 2006a; 2008a; 2008b; 2011). High school seniors are about to face the real life version of life. Decisions will be made that will carry forward throughout their lives. Without financial literacy, their individual lives may be littered with debt, insufficient cash flow, as well as many other financially related issues. We as providers of education need to be certain future generations will be able to contributing citizens of good economic times as their actions may indirectly affect our lives.

Reviewing research on financial literacy was quite revealing. So many different programs exist yet so few have quality research to back findings done by the developer. The use of the Jump$Start Coalition Survey of Personal Financial Literacy Among Students is probably the most researched survey in existence (Beverly & Burkhalter, 2005; Mandell, 2001; Mandell, 2009). The Jump$Start Coalition Survey of Personal Financial Literacy Among Students was
chosen because of the number of times it has been administered nationally, the alignment with
the National Standards for Family and Consumer Sciences Education, the availability of
psychometric information, and the high school version of the survey is administered to seniors
only.

This instrument is good, but this researcher questions the reliability and validity of the
survey. As mentioned, Jump$start (2011d) is now developing the next generation of this survey.
Limited information about the survey used was available and no other survey existed for the
purpose of this research topic. The survey used for this research was created by Dr. Mandell
(Mandell, 2006a). It will be interesting to see if an outside organization such as Dr. Mandell
develops the survey or if the new survey is an in-house product of Jump$start.

Based on the survey instrument used in this research, average scores indicate the high
school students participants did not reach the minimum score of 70, set by Jump$start as the
passing score necessary to be classified as financially literate. These findings are consistent with
previous research conducted by The Jump$start Coalition for Personal Financial Literacy
(Jump$start, 2009, 2011c). As found by the Jump$start Coalition’s research, although slight
variations have existed over time, overall personal financial literacy is not at a passing level
across the country, with survey scores averaging in the mid 50’s.

Although not evident in this study, gender has been shown to be statistically significant in
other studies (Mandell, 2008b). Mandell indicates it is necessary to link gender to
socioeconomic status and race showing that typically a difference exists with white males being
better financially literate as measured by the Jump$Start Coalition Survey of Personal Financial
Literacy Among Students in prior studies (Mandell, 2008b).
Race was examined in this research. Since the research high school has one predominate race (Latino), two categories were the focus of this study. Participants chose from Latino or Non-Latino for race. Race groups were limited to two to prevent data analysis errors. As with gender, it should be noted that Mandell (2008b) found differences in white males with higher socioeconomic level only. However, this study did not support Mandell’s findings.

Race and socioeconomic level seem to be somewhat related when discussing financial literacy. Household wealth was studied by Aizcorbe, et.al. (2003) and showed a large difference in household wealth, with Caucasian household to have a net worth of $121,000 while minorities to around $17,000. Some of the key factors in this stem from home ownership. Minorities without homeownership typically have less household wealth. Additionally, consumer debt and high unemployment was found to be the main reasons for bankruptcies by Tabb (2007). This research study finding is consistent with previous studies.

This research continued with a question focused on the survey respondent’s personal bank account ownership. Ajzen (1991) showed how attitude toward a behavior and the perceived behavioral control mix together to form the intention as well as a behavior. Those with bank accounts seemed to understand banking terms and conditions. It was not surprising to see those with personal bank account ownership scored better than those without such an account.

Although the researcher found no research on paid work experience and its relationship to financial literacy levels, the researcher believed the process of going through the paid work experience would add to financial literacy levels. The researcher was incorrect. The belief was based on Bandura’s theory of Reciprocal Determinism (Bandura, 1977).
While students take tests or surveys, some finish quickly while others evaluate every question answer and each possible answer. Thus, the amount of time taken to complete the survey was researched. A Pearson correlation found a negative yet insignificant relationship of -0.048. This finding was found to be the same as a previous study by Terranova (1972). In that study, no statistical significant relationship was found yet a non-significant curvilinear relationship was found. Students who know the material or can process the information quicker typically score better on standardized tests. None the less, it is important to understand data from this study showed additional time taken to complete survey resulted in lower scores.

“Train up a child in the way he should go, and when he is old he will not depart from it. The rich rules over the poor, and the borrower is servant to the lender” (The Open Bible, Proverbs 22.6-7). These words of wisdom were written around 950-700 B.C. Although not directly called financial literacy, this Biblical passage shows the importance of teaching children life lessons as well as understanding that borrowers are bound to terms of loans.

The following recommendations for additional research were presented based upon the findings and conclusions of this study.

1. The new Jump$tart Survey should be tested in the same high school setting. Results from the Mandell version of the survey should then be compared to the new version of the survey. This would be informative to see how scores may differ.

2. When administering the new version of the Jump$tart Survey, add the independent variable of Career Technical Agricultural Education (CTAE) completer. This would be interesting to see if CTAE programs influence financial literacy.

3. School systems should research ways to encourage and assist students entering high school to establish personal bank account ownership. School systems should work with
students, parents, and local banks in trying to establish a system for this to work while adhering to banking regulations.

4. Additional research to explore differences in cultures and possible exposure to financial experiences that may influence financial literacy. This would be especially important for students and families new to the country.

These recommendations for practice were presented based upon the findings and conclusions of this study.

1. Students entering high school should be encouraged to establish a personal savings account. Teachers and administrators should discuss ways of having banking institutions come to schools to allow students to open a savings account. One or more banks wishing to participate in this opportunity could come to the school to establish the accounts. An allotted time frame could be established each month to allow students time to take care of their banking needs. This account could begin early in their high school career, allowing them an opportunity to save money for their short-term expenses as well as long-term goals extending beyond their high school career. Along with the ability to save money for their senior year expenses, it could give them the experience that could improve their financial literacy level.

2. Establish learning experiences for families to have financial literacy time as a family and/or community. Elementary schools are beginning to develop deeper community relationships with families of their students. It would be beneficial to tag onto these opportunities and develop learning experiences for families to develop budgets, establish financial goals, and experience family decisions together. These experiences can then
grow with students into their middle school and high school years to help them understand the realities of financial matters.

3. School systems should implement a general course required for freshmen to include personal finance. Taking these courses as a freshman may have an impact on a student’s decision to remain in high school and graduate and even continue into postsecondary studies. Students today do not have the skills needed to make sound financial decisions. With such a course, students develop a better understanding of financial matters.

**Summary**

In summary, this study indicated that seniors in the study were not financially literate as measured by the Jump$tart Coalition Survey of Personal Financial Literacy Among Students. The independent variables of race, personal bank account ownership, and socioeconomic level revealed a statistically significant difference in financial literacy scores. The independent variables of gender and paid work experience revealed no statistical significance with regard to financial literacy scores. The time needed to complete survey showed to have a very small negative correlation to scores of the financial literacy survey.
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doi:10.1016/0167-4870(90)90032-5

Appendix A

Parental Research Permission Form
I agree to allow my child ___________________________ to take part in a research study titled "Factors Influencing Financial Literacy in Teens", which is being conducted by Doug Shults from the Department of Workforce Education, Leadership, and Social Foundations at the University of Georgia (706.876.4963) under the direction of Dr. Stitt-Gohdes, Department of Workforce Education, Leadership, and Social Foundations, University of Georgia (706.542-4078). My child’s participation is voluntary; I and my child can refuse to participate or stop taking part at any time without giving any reason, and without penalty. I can ask to have information related to my child returned to me, removed from the research records, or destroyed before submitting completed survey and/or information. After survey and questionnaire have been submitted, these are unidentifiable and may not be returned.

The reason for this study is to test financial literacy in high school seniors. My child will not benefit directly from this research. Results of the study will potentially used to guide future educational programs for financial literacy.

If my child volunteers to take part in this study, they will be asked to do the following things:

1) Answer questions about credit, savings, insurance, and risk management

2) Provide individual demographic information about gender, race, ownership of bank account and participation in school free lunch program.

No discomforts or stresses are expected.
No risks are expected.

Although the researcher will know who participates in the research, the information obtained will be completely anonymous. Neither the researcher nor anyone associated with the study will be able to identify survey results to any individual. Permission forms will be used to distribute surveys to students at the time of the study. The results of this participation will be anonymous.

The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by telephone at: 706.876.4963.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Researcher ___________________________ Signature ___________________________ Date __________
Telephone: ___________________________ Email: ___________________________

Name of Parent or Guardian ___________________________ Signature ___________________________ Date __________

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your child’s rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu
Appendix B

Research Consent Form
I agree to take part in a research study titled "Factors Influencing Financial Literacy in Teens", which is being conducted by Doug Shults from the Department of Workforce Education, Leadership, and Social Foundations at the University of Georgia (706.876.4963) under the direction of Dr. Stitt-Gohdes, Department of Workforce Education, Leadership, and Social Foundations, University of Georgia (706.542-4078). My participation is voluntary; I can refuse to participate or stop taking part at any time without giving any reason, and without penalty. I can ask to have information related to me returned to me, removed from the research records, or destroyed before submitting completed survey and/or information. After survey and questionnaire have been submitted, these are unidentifiable and may not be returned.

The reason for this study is to test financial literacy in high school seniors.
I will not benefit directly from this research. Results of the study will potentially used to guide future educational programs for financial literacy.

If I volunteer to take part in this study, I will be asked to do the following things:
1) Answer questions about credit, savings, insurance, risk management and, food, nutrition, and physical activity which will take 20 minutes
2) Provide individual demographic information about gender, race, ownership of bank account and participation in school free lunch program.

No discomforts or stresses are expected.

No risks are expected.

Although the researcher will know who participates in the research, the information obtained will be completely anonymous. Neither the researcher nor anyone associated with the study will be able to identify survey results to any individual. Permission forms will be used to distribute surveys to students at the time of the study. The results of this participation will be anonymous.

The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by telephone at: 706.876.4963.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Researcher: ____________________________
Telephone: ____________________________
Email: ____________________________
Date: ____________________________

Signature: ____________________________

Name of Participant: ____________________________
Signature: ____________________________
Date: ____________________________

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 629 Boyd Graduate Studies Research Center, Athens, Georgia 30602; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu
Appendix C

Minor Assent Form
Dear Participant,

You are invited to participate in my research project titled, "Factors Influencing Financial Literacy in Teens". Through this project I am learning about financial literacy in high school seniors.

If you decide to be part of this, you will complete a survey regarding financial literacy. Your participation in this project will not affect your grades in school. I will not use your name on any papers that I write about this project for this is an anonymous study. However, because of your participation you may improve your ability to identify areas of financial literacy that may need attention. I hope to learn something about financial literacy that will help other children in the future.

If you want to stop participating in this project, you are free to do so at any time. Simply return the survey to the instructor.

If you have any questions or concerns you can always ask me or call my teacher, Dr. Stitt-Ghodes at the following number: 706.542.4078.

Sincerely,

Doug Shults
Department of Workforce Education, Leadership, and Social Foundations at the University of Georgia
706.876.4963

I understand the project described above. My questions have been answered and I agree to participate in this project. I have received a copy of this form.

____________________________
Signature of the Participant/Date

Please sign both copies, keep one and return one to the researcher.

Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu
Appendix D

Informational Letter
October 15, 2011

Dear Senior:

I am a doctoral graduate student under the direction of Dr. W. Stitt-Gohdes in the Department of Workforce Education, Leadership, and Social foundations at The University of Georgia. I invite you to participate in a research study entitled Factors Influencing Financial Literacy in Teens that is being conducted under the auspices of the Dr. W. Stitt-Gohdes. The purpose of this study is to see if some factors influence financial literacy.

This study investigates high school seniors. If seniors are below the age of 18, a parent/guardian permission form will be required and is attached.

Your participation will involve providing demographic descriptive data as well as completing a survey regarding financial literacy and should only take about twenty (20) minutes to complete. Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. The survey as well as information gathered will not contain personal identification information. As a result, no information will be attached to any particular individual. The results of the research study may be published, but your name will not be used. In fact, the published results will be presented in summary form only. Your identity will not be associated with your responses in any published format.

The findings from this project may provide information on financial literacy at Dalton High School. There are no known risks or discomforts associated with this research.

If you have any questions about this research project, please feel free to call me, Doug Shults at (706) 876.4963 or send an e-mail to SDShults@uga.edu. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, 629 Boyd GSRC, Athens, Georgia 30602; telephone (706) 542-3199; email address irb@uga.edu.

By completing and returning the questionnaire to be given at school in the near future, you are agreeing to participate in the above described research project.

Thank you for your consideration! Please keep this letter for your records.

Sincerely,

Doug Shults
UGA Graduate Student
Appendix E

Participant Demographic Information Sheet
Survey part 1 - Participant demographic information sheet

Please select the most appropriate descriptor of yourself for each of the following categories:

1. What is your race?
   a. Latino
   b. White
   c. Other

2. What is your gender?
   a. Male
   b. Female

3. Do you own a bank account of any type? (examples include but are not limited to: Checking, savings, loan, investing)
   a. Yes
   b. No

4. Do you participate in a free and/or reduced lunch program at school?
   a. Yes
   b. No

5. Are you currently, or have you in the past been employed outside your household?
   a. Yes
   b. No
Appendix F

Jump$tart Coalition Survey of Personal Financial Literacy Among Students

11. Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that last several years?
   a. Older, working couples saving for retirement.
   b. Older people living on fixed retirement income.
   c. Young couples with no children who both work.
   d. Young working couples with children

12. Which of the following is true about sales taxes?
   a. The national sales tax percentage rate is 6%.
   b. The federal government will deduct it from your paycheck.
   c. You don’t have to pay the tax if your income is very low.
   d. It makes things more expensive for you to buy.

13. Rebecca has saved $12,000 for her college expenses by working part-time. Her plan is to start college next year and she needs all of the money she saved. Which of the following is the safest place for her college money?
   a. Locked in her closet at home.
   b. Stocks
   c. Corporate bonds.
   d. A bank savings account.

14. Which of the following types of investment would best protect the purchasing power of a family’s savings in the event of a sudden increase in inflation?
   b. A certificate of deposit at a bank
   c. A twenty-five year corporate bond.
   d. A house financed with a fixed-rate mortgage.

15. Under which of the following circumstances would it be financially beneficial to you to borrow money to buy something new and repay it with future income?
   a. When you need to buy a car to get a much better paying job.
   b. When you really need a week vacation.
   c. When some clothes you like go on sale.
   d. When the interest on the loan is greater than the interest you get on your savings.
16. Which of the following statements best describes your right to check your credit history for accuracy?
   a. Your credit record can be checked once a year for free.
   b. You cannot see your credit record
   c. All credit records are the property of the U.S. Government and access is only available to the FBI and Lenders.
   d. You can only check your record for free if you are turned down for credit based on a credit report.

17. 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.

18. Retirement income paid by a company is called:
   a. 401 (k).
   b. Pension.
   c. Rents and profits.
   d. Social security

19. Many people put aside money to take care of unexpected expenses. If Juan and Elva have money put aside for emergencies, in which of the following forms would it be of LEAST benefit to them if they need it right away?
   a. Invested in a down payment on the house.
   b. Checking account.
   c. Stocks.
   d. Savings account.

20. David just found a job with a take home pay of $2,000 per month. He must pay $900 for rent and $150 for groceries each month. He also spends $250 per month on transportation. If he budgets $100 each month for clothing, $200 for restaurants and $250 for everything else, how long will it take him to accumulate savings of $600?
   a. 3 months.
   b. 4 months.
   c. 1 month.
   d. 2 months.
21. Sara and Joshua just had a baby. They received money as baby gifts and want to put it away for the baby’s education. Which of the following tends to have the highest growth over periods of time as long as 18 years?
   a. A checking account.
   b. Stocks.
   c. A U.S. Govt. savings bond.
   d. A savings account.

22. Barbara has just applied for a credit card. She is an 18-year-old high school graduate with a few valuable possessions and no credit history. If Barbara is granted a credit card, which of the following is the most likely way that the credit card company will reduce its risk?
   a. It will make Barbara’s parents pledge their home to repay Karen’s credit card debt.
   b. It will require Barbara to have both parents co-sign for the card.
   c. It will charge Barbara twice the finance charge rate it charges older cardholders.
   d. It will start Barbara out with a small line of credit to see how she handles the account.

23. Chelsea worked her way through college earning $15,000 per year. After graduation, her first job pays $30,000. The total dollar amount Chelsea will have to pay in Federal Income taxes in her new job will:
   a. Double, at least, from when she was in college.
   b. Go up a little from when she was in college.
   c. Stay the same was when she was in college.
   d. Be lower than when she was in college.

24. Which of the following best describes the primary sources of income for most people age 20-35?
   a. Dividends and interest.
   b. Salaries, wages, tips.
   c. Profits from business.
   d. Rents.
25. If you are behind on your debt payments and go to a responsible credit counseling service such as the Consumer Credit Counseling Services, what help can they give you?
   a. They can cancel and cut up all of your credit cards without your permission.
   b. They can get the federal government to apply your income taxes to pay off your debts.
   c. They can work with those who loaned you money to set up a payment schedule that you can meet.
   d. They can force those who loaned you money to forgive all your debts.

26. Rob and Mary are the same age. At age 25 Mary began saving $2,000 a year while Rob saved nothing. At age 50, rob realized that he needed money for retirement and started saving $4,000 per year while Mary kept saving her $2,000. Now they are both 75 years old. Who has the most money in his or her retirement account?
   a. They would each have the same amount because they put away exactly the same.
   b. Rob, because he saved more each year.
   c. Mary, because she has put away more money.
   d. Mary, because her money has grown for a longer time at compound interest.

27. Many young people receive health insurance benefits through their parents. Which of the following statement is true about health insurance coverage?
   a. You are covered by your parents’ insurance until you marry, regardless of your age.
   b. If your parents become unemployed, your insurance coverage may stop, regardless of your age.
   c. Young people don’t need health insurance because they are so healthy.
   d. You continue to be covered by your parents’ insurance as long as you live at home, regardless of your age.

28. 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 money because he is more valuable to his company.
   d. Don and Bill will continue to make the same money.
29. If your credit card is stolen and the thief runs up a total debt of $1,000, but you notify the
issuer of the card as soon as you discover it is missing, what is the maximum amount that
you can be forced to pay according to Federal law?
   a. $500.
   b. $1,000.
   c. Nothing.
   d. $50.

30. Which of the following statements is NOT correct about most ATM (Automated Teller
Machine.) cards?
   a. You can generally get cash 24 hours-a-day.
   b. You can generally obtain information concerning your bank balance at an ATM
      machine.
   c. You can get cash anywhere in the world with no fee.
   d. You must have a bank account to have an ATM card.

31. Matt has a good job on the production line of a factory in his home town. During the past
year or two, the state in which Matt lives has been raising taxes on its businesses to the
point where they are much higher than in neighboring states. What effect is this likely to
have on Matt’s job?
   a. Higher business taxes will cause more businesses to move into Matt’s state,
      raising wages.
   b. Higher business taxes can’t have any effect on Matt’s job.
   c. Matt’s company may consider moving to a lower-tax state, threatening Matt’s job.
   d. He is likely to get a larger raise to offset the effect of higher taxes.

32. If you have caused an accident, which type of automobile insurance would cover damage
to your own car?
   a. Comprehensive.
   b. Liability.
   c. Term.
   d. Collision.
33. Scott and Eric are young men. Each has a good credit history. They work at the same
company and make approximately the same salary. Scott has borrowed $6,000 to take a
foreign vacation. Eric has borrowed $6,000 to buy a car. Who is likely to pay the lowest
finance charge?
   a. Eric will pay less because the car is collateral for the loan.
   b. They will both pay the same because the rate is set by law.
   c. Scott will pay less because people who travel overseas are better risks.
   d. They will both pay the same because they have almost identical financial
      backgrounds.

34. If you went to college and earned a four-year degree, how much more money could you
expect to earn than if you only had a high school diploma?
   a. About 10 times as much.
   b. No more; I would make about the same either way.
   c. A little more; about 20% more.
   d. A lot more; about 70% more.

35. Many savings programs are protected by the Federal government against loss. Which of
the following is not?
   a. A U.S. Savings Bond.
   b. A certificate of deposit at the bank.
   c. A bond issued by one of the 50 States.
   d. A U.S. Treasury Bond.

36. 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.

37. Which of the following instruments is NOT typically associated with spending?
   a. Debit card.
   b. Certificate of deposit.
   c. Cash.
   d. Credit card.
38. Which of the following credit card users is likely to pay the GREATEST dollar amount in finance charges per year, if they all charge the same amount per year on their cards?
   a. Jessica, who pays at least the minimum amount each month and more, when she has the money.
   b. Vera, who generally pays off her credit card in full but, occasionally, will pay the minimum when she is short of cash.
   c. Megan, who always pays off her credit card bill in full shortly after she receives it.
   d. Erin, who only pays minimum amount each month.

39. Which of the following statements is true?
   a. Banks and other lenders share the credit history of their borrowers with each other and are likely to know of any loan payments that you have missed.
   b. People have so many loans it is very unlikely that one bank will know your history with another bank.
   c. Your bad loan payment record with one bank will not be considered if you apply to another bank for a loan.
   d. If you missed a payment more than 2 years ago, it cannot be considered in a loan decision.

40. Dan must borrow $12,000 to complete his college education. Which of the following would NOT be likely to reduce the finance charge rate?
   a. If he went to a state college rather than a private college.
   b. If his parents cosigned the loan.
   c. If his parents took out an additional mortgage on their house for the loan.
   d. If the loan was insured by the Federal Government.

41. If you had a savings account at a bank, which of the following would be correct concerning the interest that you would earn on this account?
   a. Earning from saving account interest may not be taxed.
   b. Income tax may be charged on the interest if your income is high enough.
   c. Sales tax may be charged on the interest that you earned.
   d. You cannot earn interest until you pass your 18th birthday.
Appendix G

Institutional Review Board Approval
10/24/11

Chris Joseph cjoseph@uga.edu

to Doug Shults

PROJECT NUMBER: 2012-10214-0
TITLE OF STUDY: Factors influencing financial...
PRINCIPAL INVESTIGATOR: Dr. Stitt-Gohdes

Dear Doug,

The University of Georgia Institutional Review Board (IRB) has approved the above-titled human research application that was reviewed by Expedited 7 review procedure. You will receive an approval packet with date stamped consent forms in the mail.

Please be reminded that any changes to this research proposal can only be initiated after review and approval by the IRB (except when necessary to eliminate apparent immediate hazards to the research participant). Any adverse events or unanticipated problems must be reported to the IRB immediately. The principal investigator is also responsible for maintaining all applicable protocol records (regardless of media type) for at least three (3) years after completion of the study (i.e., copy of approved protocol, raw data, amendments, correspondence, and other pertinent documents). Any HIPAA-related research documents must be retained for a minimum of six (6) years. You are requested to notify the Human Subjects Office if your study is completed or terminated.

Good luck with this study, and please feel free to contact us if you have any questions. Please use the IRB project number and title in all communications regarding this study.

Best,

Chris A. Joseph, Ph.D.
Department of Anthropology
University of Georgia
Athens, GA 30602

cjoseph@uga.edu
Appendix H

District Approval
October 13, 2011

To Whom It May Concern:

I have reviewed Doug Shults research request. Permission has been granted for Doug to collect the data as submitted in his proposal with guidance from the principal of Dalton High School. The only request that I make is upon completion of the study that the findings are shared with the principal and me. If I can be of further assistance in this process, please let me know.

Sincerely,

Rhonda Hayes, Ph. D.
Assistant Superintendent
Dalton Public Schools
Appendix I

Principal Approval
October 18, 2011

To Whom It May Concern:

Mr. Doug Shults has requested to conduct research in cooperation with Dalton High School. This letter acknowledges review of his proposal and permission to collect data from the appropriate sources. I understand that he will share information gathered with myself and the Dalton Public Schools district office staff.

Regards,

Debbie Freeman, Principal

Dalton High School
Appendix J

Lewis Mandell’s Permission To Use Survey
Doug Shults 9/24/11

to LewMandell

Dr. Mandell,

I am Doug Shults, a Ed.D. student at UGA doing my dissertation of Financial Literacy of high school seniors at Dalton High School in Dalton GA. May I use your Jump$start survey for my research?

I will be glad to share my results with you.

Thanks,

Doug Shults

Lewis Mandell 9/24/11

to Doug Shults

Sure, no problem.

Sent from my iPad
Appendix K

Independent Variable Coding Summary for SPSS Analysis
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<th>Measurement</th>
<th>Test type</th>
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<td>2 – Non-Latino = 2</td>
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<tr>
<td>Ownership of any type bank account</td>
<td>1 – yes, ownership of bank account = 1</td>
<td>$t$-test</td>
</tr>
<tr>
<td></td>
<td>2 – no ownership of bank account = 2</td>
<td></td>
</tr>
<tr>
<td>Socioeconomic Level</td>
<td>1 – yes, free and/or reduced lunch recipient = 1</td>
<td>$t$-test</td>
</tr>
<tr>
<td></td>
<td>2 – no, regular lunch = 2</td>
<td></td>
</tr>
<tr>
<td>Time taken to complete survey</td>
<td>Actual time to complete survey</td>
<td>Pearson Correlation</td>
</tr>
</tbody>
</table>
Appendix L

Survey Instruction Script
Good Day Everyone!

I am Mr. Doug Shults. Today, you will know me in a different role than your teacher or administrator. Today, I am Mr. Shutls, UGA Researcher.

I want to thank each of you for taking your time to participate in this research. Previous research shows Financial Literacy to be important for the financial success of individuals. In this survey, I hope to connect aspects of your life to your score of the survey. With this survey, I hope to influence what is taught here at Dalton High to future students to possibly help improve financial literacy.

This survey is anonymous. Do NOT write your name on the answer sheet or any part of the survey.

This survey contains two parts. The first part is information about you. Please answer questions 1-5 at this time on your answer sheets.

You will notice that the survey begins with question 11. Please skip down on the answer sheet to answer space 11. Please match each question with the corresponding space on the answer sheet.

Once finished with the survey, please bring you answer sheet to me. After giving me the answer sheet, please have a seat until the end of the class period.

Once again, I want to thank each and every one of you for your time, energy, and effort in your participation of this survey. Please do your best for me as well as well as future students. You may begin.