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The Impact of Financial Education on High School Students' Current and Future Financial Behaviors

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THE IMPACT OF FINANCIAL EDUCATION ON HIGH SCHOOL STUDENTS' CURRENT AND FUTURE FINANCIAL BEHAVIORS

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Abstract

Financial literacy is an essential skill, necessary to lead a prosperous life. This paper explores the impact of financial education on high school students' current and future financial behaviors focusing on the history of financial literacy in the United States, influencers of personal financial knowledge of students, and delivery of curriculum. The emphasis put on the importance of personal financial education in high school has come and gone throughout the past few decades. While many schools and organizations see the importance of a personal finance class in high school, others do not see a spot for it within the demanding course load already in place for students. Children learn habits, financial or otherwise, from observing those they trust. Whether it be an educator or parent, students mimic the behaviors they see which is why influencers need proper knowledge, standards, and curriculum to be effective in their delivery methods. This paper concludes with the impact of financial literacy on a student's short and long-term financial behavior.

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Chapter I: Introduction

In my two years of teaching personal finance at the high school level, I have learned far more about money management and personal financial behavior than I ever learned as a student. This crippling realization led me to think about the future of our country and the millions of others who grew up without a sound education on financial literacy. If growing up in an upper middle-class family and attending a highly-ranked high school couldn't prepare me financially for the real world, what is to be said about those who may not have been as fortunate? My parents instilled a hard-working mind set into my brothers and me and taught us the value of a dollar at an early age. We all held many jobs throughout high school and college to ensure that we didn't graduate with large amounts of debt. Even with having parents who modeled good financial behavior, the reality is that prior to developing my content knowledge to teach the personal finance standards and curriculum, I did not fully understand the importance of investing and diversifying one's portfolio, what compound interest really looked like years later, and the true repercussions of debt. Teaching personal finance has changed my outlook on my financial future and I now see the importance of spending and saving wisely and planning for retirement.

After seeing the aftermath of many poor financial decisions by my peers, family, and friends, I decided to focus my literature review on the history of personal financial education, who the influences are in a person's financial decisions, how financial literacy is being taught currently, and the current impact of financial literacy in the high school curriculum. With this literature review, I hope to determine whether there is a correlation tying together financial education with future financial decisions and look into what steps could be taken to reduce poor decisions related to personal finances.

The Problem

The National Financial Educators Council defines financial literacy as "possessing the skills and knowledge on financial matters to confidently take effective action that best fulfill an individual's personal, family and global community goals" (National Financial Educators Council, 2018). The level of personal financial literacy knowledge is below where it should be in America as the average debt per citizen is a staggering $64,649 as of July 18, 2018 (US Debt, 2018). Students are graduating from high school without proper guidance on how to thrive financially in a world where credit cards are abundant, loans are expected, and saving for retirement is not on the forefront of peoples' minds.

Throughout our nation's history, the importance of financial literacy has varied. In 1985, over half of US states adopted consumer behavior education standards however financial literacy did not become emphasized until the 1990's. This adoption was due to the hard work and dedication by the Jump$tart Coalition and the Consumer Federation of America (Loibl and Fisher, 2013). Though financial literacy has been highlighted over the last few decades, it was not until the recession of 2008 that it flourished as a true topic of conversation amongst Americans.

The 2008 recession had an alarming impact on many individuals and seemed to play a hand in making America reexamine the importance of financial education in schools. This economic downturn sprouted a push for the importance of personal financial knowledge through proper education in the high schools. Currently, 33 of the 50 states in our country are without mandated curriculum to teach financial education in the classroom; however, organizations are working to see that change (Urban, Schmeiser, Collins & Brown, 2015). Prior to the latest large economic recession, research on factors that influence financial literacy has been scarce in academic journals resulting in few studies that document the effects of financial literacy over a long period of time. The amount of research is vast but there has yet to be a clear, unified vision for what Americans should be doing, as a country, to increase the financial literacy of our citizens.

Purpose and Guiding Questions

The purpose of this literature review is to determine the impact financial education has on high school students' current and future financial behaviors. This will be accomplished through the following guiding questions:

- What does the history of personal finance mandates tell us about the current financial literacy knowledge of Americans?
- What influencers play a role in the education of financial literacy in high school students?
- What methods of delivery are being used currently in the high school personal finance curriculum?
- What are the short and long-term impacts of personal financial literacy education in the high school curriculum?

To answer these guided questions, Chapter 2 contains reviewed literature relevant to the history of personal finance mandates, influencers on student's financial education, methods of curriculum delivery, and short and long-term impacts of taking a personal finance course. This thesis then proceeds to Chapter 3 which summarizes the paper along with listing the professional applications, limitations of the research, and implications for future research.

Significance of the Thesis

Personal financial literacy plays a key role in a person's ability to live responsibly when it comes to their current and future finances. A person's financial knowledge is not something that should be learned by trial and error but rather through education early in life so that fiscal mistakes are less likely to happen. If students are not educated within the classroom, their financial fate is left to information learned from friends and family.

Financial education is a subject that every student can relate to regardless of their past, present, or future. Whether it applies to them now, or years later, handling money is something that everyone does, regardless of career choice or future goals. Learning about basic life occurrences such as opening and managing a bank account, obtaining credit and using it wisely, buying a car, and investing into retirement plans are topics that, with proper education, can positively impact one's financial future. By requiring schools to offer a personal finance class, or better yet, require students to take said class, students will be learning qualitative reasoning and money strategies to use when making personal financial decisions now, and long into their financial future.

Definition of Terms

This thesis includes many vocabulary terms and definitions which are key to understanding the content within. There are several terms that will be necessary for understanding the scope of the paper while others are strictly content related terms that will help clarify statistics and results.

Key Terms

Financial Literacy: an indication of one's knowledge of financial concepts and the ability to use that knowledge to make decisions that support economic well-being (Lester & Williams, 2010).

Home-less Curriculum: the idea that personal finance education has a weak presence and no obvious home in most school programs (Morton, 2005).

Personal Finance: the study of personal and family resources considered important in achieving financial success; therefore, it involved how people spend, save, protect, and invest their financial resources (Garman and Forgue, 2012).

Personal Finance Standards: benchmarks of knowledge organized around the major financial activities of individuals and households including in the areas of spending and savings, credit and debit, employment and income, investing, risk management and insurance, and lastly financial decision making. (Hill, Suiter, n.d.).

Content Specific Terms

Risk Diversification: consists of spreading risk out into numerous areas to ensure that the potential negative effects of exposure to any one variable are limited (Currency and Risk Management Solutions, n.d.).

Compounding Interest: interest calculated on the initial principal and also on the accumulated interest of previous periods of a deposit or loan (Sharper Insight. Smarter Investing, n.d.).

Chapter II: Literature Review

This literature review contains many studies that focus on personal financial literacy in high school and the impact it has on a person's financial future. The purpose is to review, analyze, answer, and support the guiding questions. The analysis starts with a look at the history of personal finance and financial literacy over years past and goes on to describe what influencers students have in their lives related to personal financial knowledge. After discussing financial influences, this section describes the different methods of curriculum delivery personal finance is delivered including which department introduces the material, how educated and well-versed the educators are in the curriculum, how much time is spent on the delivery, and which supplemental materials are used to teach the subject matter. Finally, this review concludes with studies proving, and disproving whether financial education in high school has a clear impact in a person's short and long-term financial standing.

History of Financial Literacy in the U.S.

A common assumption is that financial literacy is an issue that has only surfaced due to the current increasing demand in a face-paced world; however, American education on personal financial behavior was more prevalent in the early 20th century than it is today. As years passed, America saw schools eliminate classes related to consumer decision-making.

The re-rise of personal financial education began as a sub-group within consumer education which offered skills and understanding for students to make informed consumer decisions. These classes were developed in the mid to late 1900's and by 1985, consumer education standards were adopted by 29 states (Garrett, & Maki, 2001). For many years, financial education remained only a part of the larger consumer education focus.

While well-designed and implemented content standards for economics have existed since 1998, Bosshardt and Walstad (2014) explain that financial education is merely viewed as an application or extension of economic understanding and analysis as applied to individual or household decision-making. Paul O'Neill, Secretary of the U.S. Department of the Treasury at the time, testified before the Senate Committee of Banking Housing, and Urban Affairs. His testimony stated that from 1990 to 2000, the rate of personal bankruptcy in the United States rose by 69%.

Since 1998, the number of states including personal finance standards in their curriculum has grown from 21 to 43, while economics standards have increased to being adopted by all 50 states (Council for Economic Education, 2014). Though adopted, this does not mean that states require personal finance or economics, only that in some variation, standards are created and may be offered in some fashion.

In 2003, the US government passed the Financial Literacy and Education Improvement Act which offered easily accessible education materials for personal finance curriculum. A study conducted a year after this act was passed showed that high school seniors answered just more than 50% of the financial literacy questions asked within an administered survey. At this time, the survey results also indicated that the majority of participants learned most of their money management skills at home. This data shows a lack of financial education in the classroom as only 20% stated this knowledge was learned at school (National Strategy for Financial Literacy, 2006). Along with pushes from Congress to modernize some of the education efforts, as of 2004, American's recognize April as National Financial Literacy Month.

In an article published in Social Education in 2005, John Morton described personal finance as a *home-less curriculum*. Morton continued by stating that the problem is that personal finance education has a weak presence and no obvious home in most school programs (Morton, 2005). This idea of the home-less curriculum shows a disconnect between the standards and where they are to be taught in the high school program.

A larger realization of the importance of financial literacy came to the forefront in 2008 during the economic recession. This financial crisis was a heavy and emotional time for many individuals and provided numerous examples of how the lack of financial capability can impact family life. Negative economic trends, such as an increasing unemployment rate (6.2% in September 2008 to 10% in December 2009), as well as increasing consumer debt, as sited in Economic Report of the President in 2010, demonstrated the need for families to better understand the economy and have the knowledge and skills needed to make important financial decisions (Jorgensen & Savla, 2010). In response, a heightened interest in academic research about financial literacy and financial education has occurred. Organizations are generating more interest in better understanding how to promote savvier saving and borrowing behavior. The ability of individuals to make informed financial decisions is critical to developing sound personal finance, which can contribute to more efficient allocation of financial resources and to greater financial stability at both the micro and macro level (Lusardi, 2008; Lusardi & Tifano, 2009a,b).

Over the past decade[s], Americans continue to be informed about how poorly our society is doing in managing its finances. Whether it is the government spending too much or personal excess in credit card debt, increased rate of mortgage foreclosures, lack of personal savings, or retirements accounts, we all have to reassess how we handle our finances (Yates & Ward, 2011).

In 2013, ten years after the Financial Literacy and Education Improvement Act was passed, the President's Advisory Council on Financial Capabilities for Young Americans was created with the purpose of making key recommendations to improve financial literacy and seeing those ideas come to action (U.S. Department of the Treasury, 2016). As of 2015, close to half of states in the United States include some form of a personal finance course as part of their high school curriculum. Though we are seeing more strides being taken to increase financial literacy of Americans, currently only 17 of the 50 United States have some sort of personal finance education requirement (Urban, Schmeiser, Collins & Brown, 2015) leaving 33 states without mandated curriculum to teach financial education in the classroom, though we are seeing forward momentum in Kentucky.

A bill recently passed through the Kentucky House in February of 2018 which would require public high school students to fulfill a financial literacy requirement before graduation. According to WSAZ News Channel 3, Representative Jim DuPlessis states, "If we want to fix financial illiteracy, we must get away from the notion that it is a privilege to know how money works"(WSAZ, 2018). If passed, this requirement would begin with students entering ninth grade in the 2020-2021 school year.

Most recently, the federal government has passed a law equipping students with skills to succeed in our economy. In July of 2018, President Donald Trump signed the Strengthening Career and Technical Education for the 21st Century Act. According to Education Week, this legislation is a reauthorization of the Carl D. Perkins Center and Technical Education Act which will allow states to set their own goals for career and technical education (CTE) programs. There are groups, such as the Advance CTE and the Association for Career and Technical Education who worry that this legislation could prevent states from setting clear and attainable goals for CTE programs. However, this bill will likely provide $1.2 billion a year to states with fewer requirements from Washington (Ujifusa, 2018). At this time it is unclear what the result of this bill will be, but it could signal a new direction moving forward in vocational studies.

Influencers of Personal Financial Knowledge of Students

Financial Knowledge Background

Access to credit is easier than ever before and opportunities to borrow are plentiful. Students grow up with a variety of backgrounds in financial literacy including learning from parent's knowledge and behavior and learning personal finance by licensed teachers within their high school curriculum. Society is in a time where individuals cannot perform simple economic calculations and lack knowledge of basic financial concepts such as compounding interest and risk diversification. The ability of consumers to make informed financial decisions improves their ability to develop sound personal finance (Lusardi, 2008).

Individual Retirement Accounts (IRAs) were created for Americans to set aside money for retirement; however, we are seeing a lack of responsibility when it comes to using these accounts properly. The 2017 Retirement Confidence Survey (RCS) finds that the share of American workers who are very confident in their ability to afford a comfortable retirement remains low (Employee Benefit Research Institute, 2017). In fact, only 18% of Americans surveyed felt very confident in their ability to retire comfortably. Additionally, four in 10 (39%) of workers surveyed report that they and/or their spouse had not saved for retirement and only 44% are currently saving for retirement (2017).

The lack of financial literacy has encouraged the development of educational programs aimed at implementing content and resources to increase financial literacy. Every two years the Council for Economic Education, a non-profit organization in the United States that focuses on personal finance and economic education for students K-12, comprehensively reviews the state of K-12 economic and financial education in the United States, collecting data from all 50 states and the District of Columbia. They craft a *Survey of the States* which reveals benchmarks for the United States' progress on where our nation currently stands and how far we still have to go when it comes to financial and economic education. (Jump$tart, 2015). In this survey, of the 17 states that require a personal finance course be taken, only five of those required a stand-alone semester course in personal finance.

On a broader scale, the Program for International Student Assessment (PISA) is a system of international assessments that allows countries to compare outcomes of learning as students near the end of compulsory schooling. PISA measures the performance of 15-year-old students in science, reading, and mathematics literacy as well as other occasional subjects, such as financial literacy, every three years. The results of the most recent study showed a small four-point drop in the average scores of 15-year old students on the PISA financial literacy scale when comparing 2015 to 2012. When comparing to other first-world countries like China, Canada, Netherlands, Australia and Belgium, the United States is falling short. In fact, the U.S. is a few points shy of the Organization for Economic Cooperation and Development (OECD) average. Twenty-two percent of U.S. 15-year-old students scored below a level 2 on this assessment, which is considered below a baseline level of proficiency by the OECD (Gonzales & Sen, 2017). The strength of this study is that is compares the U.S. to other countries so we can determine where Americans' financial literacy falls on a national level. The weakness is that the study does not concentrate specifically on personal finance content which may show a lack of focus to the particular area of study.

Economic industry leaders agree when it comes to the importance of financial literacy. Wells Fargo & Company's Chairman and CEO, John G. Stumpf, stresses that:

> Educating our younger generations about financial issues is crucial to both their individual economic security and our country's ongoing prosperity. Fundamental knowledge of money management, savings, and personal finance decision making are more important than ever given the rapid pace of financial technology and of today's global marketplace. Working together, we can help demystify concepts that are very personal to people, yet intimidating to many, and enable them to reach their financial dreams, whether those are going to college, buying a home, or investing in a small business (Jump$tart, 2015).

There is a need to understand why so many American households reach retirement with little or no wealth. Lusardi poses the question, "If people with low literacy make mistakes, who will pay for these mistakes" (Lusardi, 2008). The challenge of this task is a heavy one but creating programs and curriculum pertaining to financial literacy can help our current economic environment.

Personal Finance Influenced by Parents

Parents are another factor that influence a child's financial future. In a study of students enrolled at the University of Arizona that started in 2007, parents' influence was found to be 1.5 times greater than that of financial education and more than twice that of friends (Shim & Serido, 2011). The influence of parents can result in either positive or negative financial aptitudes and knowledge on financial behavior. In many cases, teaching children to be financially literate has been mostly left to parents while studies are finding that many parents do not have these skills themselves. Parents fill the role as a primary source of financial information. Families in which discussions of financial matters were avoided had a higher probability of problematic debit card use (Mandell, 2008). With the potential for parents to have limited financial knowledge, financial illiteracy tends to persist which is why adolescents with low levels of financial literacy stay illiterate through adulthood (Lusardi, Mitchell & Curto, 2010).

Children from a young age watch how their parents handle money, and as a result, they develop behavioral patterns that often mimic what they have observed. Financially illiterate households are likely to be poorer and less educated than financially literate households making it difficult to isolate the impact of financial literacy from other factors associated with poor financial outcomes. Mandell (2008) found that students who earn high scores on financial literacy tests tended to come from well-off, well-educated households.

The fact that financially illiterate households are likely to be poorer and less educated than financially literate households, makes it difficult to isolate the impact of financial literacy from other factors associated with poor financial outcomes (Cole, Paulson & Shastry, 2014). A parent's ability to effectively demonstrate positive financial behavior has a strong correlation to a child's current and future financial behavior. An understanding of financial concepts needs to be given as early as possible because financial habits will continue to be carried and built by children to their adulthood (Dwiastanti, 2015).

Norvilitis & MacLean (2009) conducted a study of 173 college students at a medium-sized state university in the United States to determine how teaching and modeling of financial concepts by parents affects college student credit card debt. This study found that parental hands-on mentoring of financial skills was most strongly related to lower levels of credit card debt. Not only was there a decrease in debt, the study also found fewer impulsive behaviors when it came to credit card use. Students were asked where they learned the most about managing their finances. Of those participating in the study, 46.8% reported learning about money from their parents and only 7.5% reported learning about finances at school. Other choices were through friends, the media, or their own personal experiences. This study suggests that parents who engage in a hands-on approach to teaching financial literacy through such actions as managing an allowance and bank accounts have children who report lower levels of credit card debt after high school. (Norvilitis & MacLean, 2009). The sample size of this study was a strength as it randomly sampled a large population of college aged students. A weakness found in this study is it did not specify whether students took a stand-alone personal finance class in high school or just had education of some degree in a high school or college class.

A study on 420 college students was conducted by the College Student Financial Literacy Survey (CSFLS) to test whether parents influence young adults' financial knowledge, attitudes, and behaviors. The purpose of the study was to test a conceptual model of perceived parental influence on the financial literacy of young adults. The results of the test indicated that perceived parental influence had a direct and moderately significant influence on financial attitude and had an indirect and moderately significant influence on financial behavior, mediated through financial attitude. These findings provide an insight into the importance of parental socialization on the financial literacy of their children (Jorgensen & Savla, 2010).

TIAA-CREF Institute's (2001) Youth and Money Survey found that 94% of young adults turned to their parents for financial education, yet parents were not the best financial educators for their children nor did parents think it was their responsibility to teach finances to their children. Financial literacy courses, as they stand, may not come early enough in a child's life, relying on parents to expose their children to proper spending habits. Thus, whether parents believe teaching financial skills to their children is their responsibility or not, children look to their parents for guidance (Jorgensen & Savla, 2010).

Personal Finance Influenced by Teachers

Teachers play a significant role in students financial literacy. Annamaria Lusardi, the Denit Trust Chair of Economics and Accountancy at the George Washington University School of Business, stresses that "many young Americans lack the basic skills to manage money" (Council for Economic Education, 2015, p. 2). The Council for Economic Education President and CEO, Nan, Morrison, agrees that the gap needs to be closed. She encourages parents and community members to discuss these issues with teachers and administrators to gain support for teacher training in the area of personal finance (p.3).

Studies are starting to see the benefits of early financial education on students' future livelihood including savings rate, debt, and credit score. It is economically important for people to be able to plan for their retirement and future and personal finance plays a large role in this (Lusardi, 2008). It is the responsibility of the educators and school administration to ensure that appropriate curriculum and materials are provided to aid in students financial literacy development.

A progressive study by Bernheim, Garrett, and Maki (2001) reported positive effects on savings behavior and asset building among young adults receiving financial literacy education in high school (Loibl & Fisher, 2013). John Morton (2005) states that without the focus and direction that a unified set of principles could provide, personal finance education in practice often comes to little more than pious admonitions and the pursuit of trivial facts. This unified set of principles are better known as financial literacy standards which provide an easy to use and concise outline of personal finance content and do not assume prior financial knowledge (Hill & Suiter, n.d.)

Though standards set a base for educating our youth on financial literacy, the majority of personal finance content currently taught in American classrooms is being integrated into other K-12 courses (Hill & Suiter, n.d.). Hill and Suiter confirm that we are still only seeing 17 of the 50 states require that personal finance be taken before graduation and only five of those require a stand-alone semester course in personal finance. When financial literacy is taught in other classes such as Family and Consumer Sciences, Economics, and Mathematics, there could be a wide variety of perspectives on what exactly should be taught (Loibl &Fisher, 2013). This fact results in a silo of content understanding and limited time devoted to this subject due to the other standards of their subject areas (Hill & Suiter, n.d.). However, because there is a finite amount of time in the school curriculum, an expansion of financial education courses comes at the cost of less time devoted to other subjects (Brown, Collins, Schmeiser & Urban, 2014).

Another study on teacher's influence on financial literacy focused on results from an online survey of more than 1,200 K-12 teachers currently enrolled in teacher education programs. The study was conducted to determine a teachers' background and capacity to teach personal finance. Results indicated that while teachers recognized the importance of teaching personal finance, few had formal preparation for teaching this subject matter (Way & Holden, 2009). The findings also indicated the teaching of personal finance was highly concentrated by grade level and discipline. The cause was that teachers felt limited in preparedness in both subject matter and pedagogy, particularly in the more technical topic areas of risk management, insurance, and investing. In fact, 37% of K-12 teachers had taken a course offering personal finance content. Teachers also had concerns about their own personal financial well-being, especially future retirement income adequacy. While 89% of K-12 teachers agreed that students should either take a financial education course or pass a competency test for high school graduation, relatively few teachers believed they were adequately prepared to teach personal finance topics (2009). The weakness of this study is that it does not focus on why teachers feel limited in preparedness or suggest ways to increase content knowledge for teachers. The strength, however, lies in the sample size of this study and the fact that the teachers were currently enrolled in education programs.

A study was conducted to examine which characteristics in teachers were best prepared to teach personal finance content (Sasser & Grimes, 2010). The sample included 126 Oklahoma teachers and administrators from different educational content area and grade levels – all of which participated in a financial literacy workshop. Of this sample, a little over half were high school level, 46 teachers or administrators taught either social students or business, and 47 taught personal finance, and only 18 had received formal training to teach personal finance. The results state that business teachers, teachers who had received content training, and teachers who had taught the curriculum, demonstrated a statistically significant higher content knowledge. Other studies conducted around this issue found that prior to workshops, teachers did not feel fully prepared to teach the financial literacy standards. Only after completing a workshop on financial literacy did the study start to see teachers agreeing with feeling prepared to teach the standards (Nielsen, 2011). This study holds weight because of the vast background of the different teachers surveyed. It focused not only on business teachers but also social studies as well. The weakness of the study is the focus of teachers in Oklahoma which could cause the data to not be transferable to other geographical regions.

Of the five states that require a stand-alone semester course in personal finance, Virginia stands out as a progressive state when it comes to financial literacy. In 2009, the Virginia Board of Education amended the high school graduation requirements to include a requirement that every student pass a full-credit (full-year) course in economics and personal finance. This state is known to have one of the strongest standards of learning in the nation. Virginia also understands the importance of making sure their teachers are equipped with the education and knowledge to properly teach students financial literacy skills. More than 1,700 high school teachers have participated in economic and personal finance institutes to help build that key understanding of the content area (Jump$tart, 2015).

There is the understanding that though financial education may be required across some states, it may not be placed in the appropriate content area to be effective. Teachers approaching the topic of personal finance may feel a greater sense of curricular autonomy than teachers of well-defined, sequential subjects. Since personal finance includes so many topics, teachers need to make individual choices about what to include or not include. It is likely that the topics covered in personal finance instruction in economics will differ from such instruction in business education or family and consumer sciences (Loibl, Fisher, 2013). According to a study by Brown, Collins, Schmeiser, and Urban (2014), given that there is a finite amount of time in the school curriculum, an expansion of financial education courses comes at the cost of less time devoted to other subjects. They stated that the complexity of personal financial decisions facing American consumers has prompted an increased emphasis amongst policy makers on issues related to personal financial education.

Along with the *home-less* idea previously addressed by John Morton, there is also the examination on whether an intervention on financial literacy could create change in teacher's financial literacy and awareness as well. A study conducted by Janice Little (2014) centered around whether a relationship existed between a financial literacy intervention for teachers, which results in a positive change in financial literacy, financial awareness, and their subsequent advocacy for financial literacy courses for elementary and middle school age students. The results of the analysis showed there was a statistically significant relationship between financial literacy intervention and teachers' financial literacy and teachers' financial awareness. Results could be used to provide educators, researchers, and government officials a broader understanding of financial literacy, financial awareness, and advocacy of financial literacy courses on the elementary and middle school level.

An educator's understanding of content and standards is crucial for properly teaching students financial literacy concepts. Tom Montminy of the Star Tribune in 2016 summarized a study which surveyed over 2,000 teachers, ranging from kindergarten through high school. Ninety-two percent of the educators surveyed recognized the importance of teaching financial education but admitted they lacked the knowledge and necessary resources to properly teach the content. In fact, 80% of Minnesota teachers felt they lack appropriate curriculum to teach students personal finance. Currently, only 12% of teachers nationwide (K-12) incorporate financial education into their lessons and more than half of the teachers in Minnesota believe that their students are not receiving any financial education at home.

Curriculum: Standards and Delivery

Even with defined standards for financial literacy, the weight and depth of the content can easily be missed when it is not being taught in a stand-alone class. There are many ways to deliver content in the classroom whether that be in a defined personal finance class, or within other classes such as family and consumer education, economics, or mathematics. Though there are many content areas which a school can choose for financial literacy standards to be taught, the method of which the content is delivered can also be a true indicator of knowledge growth. Research is finding that some delivery methods have more of an impact on students than others. This section evaluates these methods.

National Curriculum Standards

There are six updated national standards, published in March of 2013, which are organized around the major financial activities of individuals and households (see Appendix A) including the areas of spending and savings, credit and debit, employment and income, investing, risk management and insurance, and financial decision. The standards are meant for teachers to be able to develop their own scope and sequence to ensure that students receive comprehensive personal financial education before they graduate (Hill, Suiter, n.d.). This outline of standards also allows teachers to create their own lesson plans and assess mastery based on the performance indicators that accompany each benchmark. As these six standards are meant to be comprehensive, they include substantial content for financial education. There are 144 benchmarks, with 63 focusing on grade 12 education. Bosshardt and Walstad reported that each of the benchmarks represent a concept that can stand as the core of a lesson plan that incorporates important understanding of personal finance (Bosshardt & Walstad, 2014). These standards and benchmarks draw from several academic areas including mathematics, economics, business, and consumer science. This being so, the National Standards in K-12 personal finance education is intended then to support educational endeavors in these other subject areas as well as stand-alone courses (Loibl & Fisher, 2013).

Does the specific type of financial education influence financial knowledge? Walstad, Rebeck, and MacDonald (2010), conducted a study to see if, in fact, there is a true correlation. Students from four different states, Minnesota, Maryland, New York and Texas, were involved. This larger group was then split in two - one group was taught using the Financial Fitness for Life ® curriculum and the other, who was not enrolled in a class that taught personal finance, was used as a control. A pre-test was given to determine existing financial literacy knowledge. After the teaching period ended, students were given a post test. Though results were similar between the two groups for the pre-test, the post test results were much different. According to the data retrieved by Walstand, Reveck, and MacDonald (2010), there was a staggering 18.7% difference in the students' post-test scores where students who were part of the control increased their score by only 1% and students who were taught using proper curriculum, by trained teacher, saw over a 17% increase. The alarming fact here is that students who were part of the control group were not enrolled in personal finance and were getting their basic curriculum knowledge in a history or economics class. From studies like this, we are seeing that integrating standards in other classes may not be effective for long-term learning as compared to a stand-alone class.

Minnesota Economic Standards for Financial Literacy

According to the National Standards for Business Education (NBEA, 2013), there are eight different standards that must be met when teaching personal finance. When this content is taught in an economics class, these standards are grouped into one standard (Minnesota

Department of Education, 2011). Minnesota does not currently have stand-alone standards for personal finance, so schools rely on either teaching the National Standards for Business Education or educating students using the one standard addressed in the economics standards under the area of social studies (see Appendix B).

According to the Minnesota Council for the Social Studies (MCSS), one of the five sub strands under the economic standards focuses on personal finance. This sub strand includes one standard outlining a summary description of a student's learning. This learning outcome states that *personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decision.* Within this standard, the MCSS has dissected the description into four benchmarks which elaborate on the content (Minnesota Council for the Social Studies, 2018). These benchmarks identify topics similar to that of the national standards which districts use for measuring student learning.

The Minnesota Department of Education recently modified these K-12 social studies standards to strengthen economics and, specifically, curriculum around personal finance as it is now required for students to develop skills related to personal finance in the classroom. These skills, however, are not required to be taught in a stand-alone personal finance class but any class related to economics, family and consumer sciences (FACS), agriculture, or business. This creates potential inconsistencies when it comes to the type of content delivered and how much time is allocated to the personal finance standard.

An online survey of 647 high school teachers in a US Midwestern state, given in 2007, looked at the differences in content preference when it came to curriculum being taught by business, FACS, and social studies teachers. These three groups were selected as they were most likely to teach personal finance topics (Loibl, 2010). The study looked at both qualitative and quantitative methods to determine potential factors that predicted the search methods teachers used for the specific case of high school personal finance instruction.

The results acknowledged that personal finance was a dynamic subject that requires regular involvement and learning. Of those surveyed, the opinion about how to obtain the subject matter knowledge varied among the teachers. The quantitative analysis results expressed lack of personal finance knowledge and classroom materials by inquiring about the teachers' efforts to bridge this gap. The three information search groups, business, FACS, and social studies, differed with respect to three-quarters of the 24 teacher-related variables surveyed. Business teachers focused content on areas such as credit, insurance, and investments while also having the highest motivation to research new personal finance curriculum. Family and Consumer Science teachers taught similar concepts; however, those concepts were integrated as separate units within different courses. Data results from this study concluded that social studies teachers had the least motivation to find new personal finance material and overlooked content such as credit, insurance and taxes. These findings provided rich evidence of approaches taken by the teachers to meet their information needs and to bridge a lack of classroom materials. A large strength in this study was that it focused on teachers across many content areas where personal financial topics are covered; however, this study is over ten years old which may discredit its relevancy as education has been changing rapidly in the last decade.

According to the Minnesota Jump$tart website, Jump$tart is doing a great deal in making sure that students and teachers are well educated in all aspects of financial literacy. In 2017, Minnesota Jump$tart partnered with NextGen to host a financial literacy boot camp for teachers. Over 50 teachers from across the state were in attendance. Jump$tart also hosts an annual simulation event where attendees are grouped into *families* who are struggling to make ends meet in a simulated month divided into four fifteen-minute *weeks.* Each participant plays a role within the family. This helps show students the real struggles that can occur in life after high school. Engaged local organizations like BestPrep, the Minnesota Council on Economic Education and Junior Achievement of the Upper Midwest also provide programs that address these problems.

Simulations

Business simulation games have been widely available since the 1960's. Personal financial literacy curriculum can be coupled with these 'real life' simulations though programs like *The Stock Market Game* created by the Securities Industry and Financial Markets Association (SIFMA) Foundation, *Virtual Business – Personal Finance* created by Knowledge Matters, and others.

The SIFMA Foundation, creator of *The Stock Market Game,* is dedicated to fostering knowledge and understanding of the financial markets for individuals of all backgrounds. Drawing on the support and expertise of the financial industry, this foundation provides financial education programs and tools that strengthen economic opportunity across communities and increase individuals' awareness of and access to the benefits of the global marketplace (The SIFMA Foundation, 2018).

During the 2008/2009 school year, the FINRA Investor Education Foundation designed and implemented a study of the impact of the game on students and teachers. This study was crafted to determine the impact of *The Stock Market Game* on academic achievement in mathematics and investment knowledge for students Grades 4-10, how teacher implement The Stock Market Game, and the effect of *The Stock Market Game* on teacher investment practices (Hinojosa, Miller, Swanlund, Hallberg, Brown, & O'Brien, 2009).

A randomized controlled trial (RCT) was conducted to examine the impact of playing 10- or 15-week versions of *The Stock Market Game*. The study focused on student mathematics achievement and investor knowledge and also provided information on implementation of the game and teacher investment practices. Pre- and post-tests were administered before and after the gaming sessions. The teacher survey was designed to measure how teachers implemented the game and to provide a profile of teacher investment practices. Measurement of the game's implementation focused on various teaching methods such as classroom activities, use and helpfulness of game related materials, and ability to connect the game to real world events outside the classroom walls.

Overall, results from the RCT showed that students who played *The Stock Market Game* significantly outperformed students who did not play the game on both the mathematics and investor knowledge tests. For students in Grades 4–6, the treatment group scored approximately 27 points higher in mathematical achievement than those in the control group. For students in Grades 7–10, the treatment group for this content category scored approximately 15 points higher than the control group. In relation to students' investor knowledge, students were grouped into elementary school, middle school, and high school. For students in the elementary school, the treatment group scored approximately 62 points higher than the control group. Middle school students in the treatment group scored approximately 42 points higher than the control group, and for students in high school, the treatment group scored approximately 36 points higher than the control group. The survey also indicated the program could provide teachers with tools to expand students' knowledge of financial literacy and related topics, including investing in the stock market, establishing a spending and investment plan in consideration of personal risk level, and balancing an investment portfolio.

This study indicated *The Stock Market Game* could benefit students in many areas, including assisting in the development of academic, interpersonal, and financial life skills. It also provided teachers at any level the knowledge and familiarity to implement and better understand personal financial information for both the students benefit, and their own.

According to a study conducted by Lewis Mandell (2008), students who played a stock market game had significantly higher financial literacy scores than their four-year college-bound cohorts who had not played such a game. In his study, test results related to money management education showed no correlation to financial literacy and a high school personal finance class; however, better than average financial literacy scores were achieved by those who had a high school or college course in economics. Far better scores were obtained by those who had a college course in finance or accounting and the best scores were obtained by those college students who played a stock market game in high school. Mandell concluded that the obvious conclusion was that financial literacy is best taught if interactive and relevant, using tools such as a stock market game.

While *The Stock Market Game's* main focus is virtual investing, *Virtual Business – Personal Finance* focuses on a large array of different financial topics and concepts from buying a car to paying taxes. According to their website, because students track personal behavior and spending habits, students retain more personal finance knowledge. This simulation provides the most relevant tax, law, and regulatory information possible. It also includes updated tax forms, Affordable Care Act requirements, and current health insurance offerings. (Knowledge Matters, 2018).

Instructional time with *Virtual Business – Personal Finance* can range depending on how the classroom teacher chooses to set up the simulation. Instructors can choose which simulations the students should work on while also deciding whether additional reading and math quizzes should be offered pertaining to the material. The flexibility this program has for the teacher can allow for specific tailoring of material, class by class.

Simulations help students explore decision making, mental math, and forecasting when it comes to financial decisions. Each individual simulation tool explores financial literacy in different ways however a study conducted in New Jersey on college freshman determined that student engagement has indeed increased due to the real-world application of said simulations (Sardone, 2008).

Impact of Taking a Financial Literacy Course

It is important to determine whether taking a personal finance class has an impact on students' financial futures. While some studies determined that there is a correlation between a student's development of personal financial knowledge in high school and future positive financial behavior, others felt that courses in financial literacy do not sufficiently impact the financial success of students. This section investigates whether students are impacted, both in the short and long-term, by taking some variation of a personal finance class in their high school curriculum.

No Impact

Financial planning has often been thought of as the most useful financial resource for the average American family. Prior to the Great Recession of 2008, research on factors that influence financial literacy was scarce in academic journals (Hehiaian, 2012). Assessing the direction of causality between financial literacy and financial decision making or consumption and saving behavior has been a challenge in previous work, as financial literacy is potentially an internal variable (Klapper, Lusardi & Panos, 2012).

Though studies exist that show a positive correlation between financial literacy in high school and future financial behavior, other studies found no or negative relationships between high school financial education and financial behaviors. Despite public support for personal finance instruction in high school, its effectiveness has not been grounded (Loibl & Fisher, 2013).

Previous studies have not been able to say with statistical significance that financial literacy impacts high school students' future financial behavior. A recent study examined the differential impact when looking at 79 high school students who had completed a personal financial management course 1 to 4 years prior. The study used school records to identify students based on whether they had taken the course or not. Their findings suggest that students who had taken a course in personal finance were no more financially literate than those who had not. Also, those who took the course did not see themselves as more savings-oriented (Mandell, Klein, 2009).

A similar study in New Jersey school districts assessed 204 students using a 20-question consumer and personal finance assessment. This test was given as a pre- and post-test to compare growth in financial knowledge and skills and indicate whether students who participated in the course scored higher compared to other students in their schools. The results did not indicate any significant differences in student knowledge score for the experimental group or control group (McCann, 2010).

With long-term financial behavior, the feedback from learning by doing is irregular or infrequent, meaning the adverse consequences of costly financial behaviors are not experienced until it is too late to make a change. There are mixed results in whether financial education is effective or not. Though there is not much data stating that financial education in high school negatively affected students, the short-term financial behaviors are not always statistically significant (Wagner & Walstad, 2015).

Short and Long-Term Impact

Greater financial literacy can help individuals face unexpected macroeconomic and income shocks (Klapper, Lusardi, & Panos, 2012). Bernheim, Garrett, and Maki (2001) examined people age 35-49 and found that those exposed to financial education in high school had higher levels of asset accumulation when they reached adulthood. The importance of financial literacy for adults is beginning to be highlighted in the research as data is now demonstrating the future effects of current financial behaviors and why some adults are retiring with very little or no wealth (Lusardi & Mitchell, 2007a). Those who display high levels of literacy are more likely to plan for retirement and, as a result, accumulate much more wealth. Proper financial literacy is necessary for every individual to manage his/her finances and achieve prosperity (Dwiastanti, 2015). Mass debt and poor financial management are attributed to the lack of financial literacy efforts in our country.

According to the research conducted by Janice Little (2014), low financial literacy and bad financial management behaviors are contributing factors to the high consumer debt levels, disturbing rates of bankruptcy, and foreclosures. It is reported that respondents with lower levels of financial literacy are more likely to have costly mortgages (Moore, 2003). Studies go on to conclude that those with low literacy are more likely to default or have problems with mortgages (Geradrdi, Goette, & Meier, 2010). Also, those who are not able to correctly calculate interest rates end up borrowing more and accumulating lower amounts of wealth (Stango & Zinman, 2008).

Campbell's (2006) findings are in line with the statements above as he found that individuals with lower incomes and lower education levels are factors that commonly relate to those individuals financial literacy. These individuals are also less likely to refinance their mortgages during a period of falling interest rates. Lusardi and Tufano (2009a,b) report that individuals with lower levels of financial literacy tend to transact in high-cost manners, incurring higher fees and using high-cost methods of borrowing. The less knowledgeable also report that their debt loads are excessive or that they are unable to judge their debt position. These financial behaviors strongly support a mandate for financial education. Brown, Collins, Schmesiter, and Urban discuss that the complexity of personal financial decisions facing American consumers has prompted an increase emphasis amongst policymakers on promoting financial education at not only the middle and high school level, but into adulthood as well (2014).

A growing body of literature shows a correlation between an individual's level of financial knowledge and their financial behaviors (Brown, Collins, Schmeiser, Urban & 2014). Findings show that exposure to financial and quantitative education has significant impact on the debt-related outcomes of 19-29 year olds. In fact, exposure to both math and financial literacy education decrease the incidence of adverse outcomes – such as delinquency and collections (Brown, Grigsby, Van der Klaauw, Wen & Zafar, 2015).

When looking at current and past studies on this topic, there are clear findings that show people who are exposed to state mandated financial education have higher reported rates of savings and higher net worth. (Brown, Collins, Schmeiser & Urban, 2014). Using a panel of credit report data, a study was conducted to examine young adults in Georgia, Idaho, and Texas: three states where personal financial education mandates were implemented in 2007. Credit scores and delinquency rates of young adults pre- and post-implementation were compared to students in 25 potential control states where personal finance education courses were not required during the study period. When looking at students who had financial education compared to bordering states without financial education, it was found that those who were in school after the implementation of financial education mandates had higher relative credit scores and lower relative delinquency rates. In fact, the data from this study showed that students in Georgia who were exposed to a personal finance education had an average of 29 points higher of a credit score than those who did not receive financial education. In this same study, the magnitude of the effects increase with each year after the mandate was implemented.

Currently, with the mixed data results from study to study, there is not a clear perception for educators or policymakers. To address this gap seen in the past research, a study was conducted in three states using quarterly credit report data of people age 18 through age 21 to compare the effects of specific state policies and the effect of personal finance on credit scores relative to nearby states without financial education requirements. Overall, students graduating from high school in states with newly implemented personal finance education policies have 15 to 19 points higher credit scores. These results are consistent with state financial education requirements providing financial benefits for young adults (Urban, Schmeiser, Collins & Brown, 2015).

Many findings across literature show an important correlation between financial education and the long-term financial behaviors of students (Wagner, Walstad, 2015). Financial education has the potential to help people make more informed financial decisions and change financial behaviors that can have positive effects on financial well-being of households (Wagner, Walstad, 2015). The short-term evidence may not be as evident however, over time, mandates appear to have significantly increased the fraction of individuals taking courses covering household financial topics. The results have been significant, but gradual rather than immediate.

There is also data to suggest that the effects of a mandate are gradual, possibly affecting lags associated with curriculum development, adoption, and compliance (Bernheim, Garrett & Maki, 2001). This means that there may not be immediate evidence supporting these mandates directly after implementation but that it could take a few years to get the status to the point where data shows a direct correlation to positively impacting our student's financial literacy. Also, we must keep in mind that many states did not adopt mandates until the mid-1970's so when projecting the future savings, researches have only recently been able to track the effects long-term.

Chapter III: Discussion and Conclusion

Chapter III contains a summary of the information discussed in Chapters I and II, a professional application for peers and colleagues, limitations of the research, and implications for future research.

Summary

In order to live a fiscally responsible life, having personal financial knowledge is crucial to succeed in a society of credit cards, loans, and investing. Money management is a skill that unfortunately many students lack as they are not taught in the classroom or in the household. While well-designed and implemented content standards for economics have existed since 1998, Bosshardt and Walstad (2014) discussed how financial education is merely viewed as an application or extension of economic understanding and analysis as applied to individual or household decision-making. The 2008 recession had an alarming impact on many individuals and seemed to play a hand in making America re-see the importance of financial education in schools. States, like Kentucky, are taking action to push bills focused around financial literacy requirements through their local governments. American's are also starting to see progress in Washington D.C. In July of 2018, President Donald Trump signed the Strengthening Career and Technical Education for the 21st Century Act which could provide over one billion dollars a year to states with fewer requirements from the national level.

The ability of consumers to make informed financial decisions improves their ability to develop sound personal finance (Lusardi, 2008). In a study conducted by PISA, the U.S. fell a few points shy of the Organization for Economic Cooperation and

Development (OECD) average on personal financial literacy. Of this sample, 22% scored below a baseline level of proficiency by the OECD (Gonzales & Sen, 2017).

The current background of students' financial literacy knowledge can be limited by the knowledge of their parents and teachers. Children grow up watching their parents handle money and mimic those behaviors into their adult lives. Financially-illiterate households are likely to be poorer and less educated than financially literate households making it difficult to isolate the impact of financial literacy from other factors associated with poor financial outcomes (Mandell 2007).

Along with parents, it is important for educators to ensure curriculum development is in place for students to develop financial literacy skills they can use into their futures. Though standards set a base for educating our youth on financial literacy, most of the of personal finance content currently taught in American classrooms is being integrated into other K-12 courses (Hill Suitner, n.d.).

An online survey of K-12 teachers was conducted to determine teachers' background and capacity to teach personal finance. Results indicate that while teachers recognize the importance of teaching personal finance, few have had formal preparation for teaching this subject matter. Teachers also admit that they feel limited in how prepared they are in subject matter and pedagogy pertaining to personal finance and have concerns about their own financial well-being (Way & Holden, 2009). A study conducted by Little (2014) support these concerns. According to the data collected, there is a statistically significant relationship between financial literacy intervention and teachers' financial literacy and teachers' financial awareness. Results of this study can be used to provide educators, researchers, and government officials a broader understanding of financial literacy, financial awareness, and advocacy of financial literacy courses.

The national standards for personal finance were created for the teacher to both develop their own curriculum and ensure the students taught receive proper financial literacy before they graduate (Hill, Suiter, n.d.). Along with national standards, there are different types of delivery methods being used in the high school personal finance curriculum to support and grow-upon the content taught.

Simulations are increasingly more widely used to supplement classroom curriculum as they provide a more clear, real-world look at potential and future decision making. The SIFMA Foundation, creator of *The Stock Market Game*, uses support and expertise directly from the financial industry and provides educational programs and tools to strengthen opportunity and awareness of financial information and the global marketplace. (The SIFMA Foundation, 2018). According a study conducted by Mandell (2008), students who played a stock market game had significantly higher financial literacy scores than their four-year college-bound cohorts who had not played such a game.

There are many variables that are hindering solid evidence backing whether financial education mandates should be supported. There are studies that show little to no impact of personal finance class having any correlations with positive future financial behavior for students however several studies show evidence of increased credit score, less debt, a higher savings rate, and a readiness for retirement. Many studies supporting a personal financial mandate alluded to the fact that evidence may not be immediate and that it could take years to reach statistically significant data showing a correlation to a true impact on financial literacy.

Professional Application

After reviewing numerous studies and pieces of literature, there are many findings that tie directly back to the guiding questions presented in Chapter I. When looking back at the past century, the history depicted an inconsistent push to see overall improvement of our nation's personal financial literacy. In the early 1900's there seemed to be a clearer vision for teaching students about personal finance principles; however. the importance seemed to dissipate as the focus on saving was trampled by the idea of being a mass consumer. The 2008 recession shook our nation and because of this, the vision of a more financially literate society is back in the forefront.

Technology and a fast-paced culture have both simplified and complicated the idea of a responsible financial future. To be an effective personal finance teacher, simulations need to be incorporated and continual research needs to be conducted in order to ensure that students understand real-life situations that exist outside of the classroom walls. To ensure proper education for our nation's youth, both teachers and parents need to understand the importance of their role as an influencer on the behavior of students. To ensure this happens, parents need to start early in teaching their children about saving, managing a bank account, and staying out of debt. In turn, teachers need to do their part by insuring their curriculum is well-developed, using simulations, and continuing their knowledge growth through finding professional development opportunities in the field of personal finance.

According to the 2018 Survey of the States (Council for Economic Education), there has been no growth in personal finance education. While 22 states require personal finance to be a course offered, only 17 states require it to be taken as a graduation requirement. This requirement does not have to be fulfilled within a stand-alone personal finance class. It can be addressed in any curriculum taught in either business, social studies, or family and consumer sciences. When the content is not taught in a stand-alone course, many teachers miss giving students a well-rounded understand of the financial behaviors they will need to successfully manage life outside of high school. When students take a stand-alone personal finance course in high school, they are able to develop in all areas of personal finance (Loibl & Fisher, 2013) instead of the focused areas their content teacher chooses to touch on along with their other curriculum standards.

Many studies show data that correlate financial literacy and future financial behavior; however, others did not see this relationship. As there are many variables to consider when testing, studies vary in results related to the topic of personal finance being taught in the high school curriculum. A growing body of literature is starting to show a correlation between an individual's level of financial knowledge and their financial behaviors (Brown, Collins, Schmeister & Urban, 2014), especially related to the long-term impact that personal financial knowledge in high school can have on students' future financial success. Data suggests that the effects of a personal finance mandate are gradual, perhaps reflecting lags between curriculum development, adoption, and compliance. To develop a clearer understanding of the true implications mandated personal finance classes could have on future behavior, more studies need to assess the future financial behaviors.

Limitations of the Research

The guiding questions for this paper focused on the history of personal finance, the influencers students have in their financial literacy education, the methods of teaching this curriculum, and the impacts of personal financial literacy in the high school curriculum. This biggest limitation was the lack of long-term studies on financial behavior as this is a topic that has surface in the last few decades. Studies lacked concrete evidence related to future impact of high school mandates for personal finance. Also, the role of parents in preparing their children to handle finances wisely has yet to be fully explored. Studies have started to examine levels of financial literacy for young adults however minimal research looks into the parental influence on students' financial knowledge, attitudes, and behaviors.

A second limitation to the research is the focus on high school students. Information on elementary, middle school, and college aged students was mostly omitted unless it stressed a point related to the content discussed. The information would have provided a better glimpse into the personal finance content implemented into curriculum at an early age, and also post-high school when key content taught within the course begins to have real implications on financial habits.

A third area that limits the research is that of both sample size and geographic area. Many of the studies conducted focused on certain regional areas and contained smaller that desired sample sizes. These limitations result in a hard depiction of how they apply to the larger population. Also, with different mandates within each state, the information gained from regional studies does not always cross transfer to other areas of the nation.

Lastly, the literature reviewed focused primarily on students in the United States and only used information pertaining to other countries to compare standings for personal financial knowledge. This limitation makes it difficult to understanding what other countries are doing to improve financial literacy, and also where the U.S. stands compared to similar first world countries.

Within my research, I did expect to find more studies containing evidence stating that personal financial education had an impact on overall financial literacy for students. I also hoped to find more information relating specifically to the state of Minnesota, but the information was limited. It does seem that this topic of financial literacy is coming up in recent studies so I assume future studies will help better confirm or deny the importance of mandatory personal finance classes in the high school curriculum.

Implications for Future Research

There is limited research on financial literacy education and only recently have researchers began to study the long-term effects of this material imbedded into the high school curriculum. In the US, there are only a few studies of the effects of high school financial education policies on behaviors after graduation though Wagner and Walstad (2015) find important correlations between a student's financial education and their long-term financial success. With limited knowledge of the impact personal finance has on students' future studies, follow up testing should occur to overcome the potential limitations documented thus far.

From the research collected in this literary review, we have seen that the outcome of different studies results in different data and conclusions. This suggests that there is not enough evidence at this point to determine the true effectiveness of having, or not having, a financial literacy course in the high school curriculum. To that point, there is not substantial evidence centered around how the curriculum is taught as many states require different forms of financial education for their students. The variables are immense in this topic and, as it stands, each school has its own limitations when working to implement a financial literacy option whether that be placing the curriculum within a FACS or economics class, having a required stand-alone personal finance class, or making that class an optional elective.

Other limitations center around the teacher's previous understanding and knowledge of the subject matter, the professional development opportunities, and their ability to use proper supplemental material to tie the material to real-world experiences. Studies, like that of Way and Holden (2009), are revealing a need for greater focus on teacher training. Without a standard requirement state or nationwide, the importance of personal finance courses will not be able to be proved or disproved as the variables will continue to exist.

Further research will also need to be done on the implications of implementing financial literacy into courses earlier on in a child's education to determine when the right time is to begin teaching about money and how to properly handle it in ones future.

Conclusion

Americans are learning to be comfortable with debt even though debt did not become a problem until after World War II. As of March 2018, school debt totaled over

$1.521 trillion and auto loans were $1.118 trillion. The total U.S. consumer debt has been on a steady rise and currently is over $3.8 trillion. Americans' financial situations should not be considered *normal*, but a result of poor financial choices.

When looking at the national standards for personal finance, there are many competencies to cover meaning that there is a lot of important knowledge that students could miss when mandates are not required in a state's curriculum. Money management is a skill that is transferable across all professions and needed to have a financially successful life.

There are many avenues that influence a student's financial literacy including parent's financial behaviors, teacher's content knowledge, learning from experience, and delivery methods. Without proper mandates and content standards, many students lack the knowledge to thrive in a consumer driven world. In states where personal finance is required by the state, students have the opportunity to practice sound financial behaviors at an early age and become educated on large concepts such as investing and stocks that, otherwise, they would have to learn by trial and error. Knowledge on personal finances is essential for students to succeed post high-school. Continued studies on this issue should help gather information to best improve financial literacy nationwide.

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Appendix A: National Standards

Standard	Overall Competency	Standard Breakdown
Spending and Saving	Apply strategies to monitor income and expenses, plan for spending and save for future goals.	**Standard 1.** Develop a plan for spending and saving. **Standard 2.** Develop a system for keeping and using financial records. **Standard 3.** Describe how to use different payment methods. **Standard 4.** Apply consumer skills to spending and saving decisions.
Credit and Debt	Develop strategies to control and manage credit and debt.	**Standard 1.** Analyze the costs and benefits of various types of credit. **Standard 2.** Summarize a borrower's rights and responsibilities related to credit reports. **Standard 3.** Apply strategies to avoid or correct debt management problems. **Standard 4.** Summarize major consumer credit laws.
Employment and Income	Use a career plan to develop personal income potential.	**Standard 1.** Explore job and career options. **Standard 2.** Compare sources of personal income and compensation. **Standard 3.** Analyze factors that affect net income
Investing	Implement a diversified investing strategy that is compatible with	**Standard 1.** Explain how investing may build wealth and help meet financial goals. **Standard 2.** Evaluate investment

	personal financial goals	alternatives. **Standard 3.** Demonstrate how to buy and sell investments. **Standard 4.** Investigate how agencies protect investors and regulate financial markets and products
Risk Management and Insurance	Apply appropriate and cost-effective risk management strategies	**Standard 1.** Identify common types of risks and basic risk management methods. **Standard 2.** Justify reasons to use property and liability insurance. **Standard 3.** Justify reasons to use health, disability, long-term care and life insurance.
Financial Decision Making	Apply reliable information and systematic decision making to personal financial decisions.	**Standard 1.** Recognize the responsibilities associated with personal financial decisions. **Standard 2.** Use reliable resources when making financial decisions. **Standard 3.** Summarize major consumer protection laws. **Standard 4.** Make criterion-based financial decisions by systematically considering alternatives and consequences. **Standard 5.** Apply communication strategies when discussing financial issues. **Standard 6.** Analyze the requirements of contractual obligations. **Standard 7.** Control personal

		information. **Standard 8.** Use a personal financial plan.

Appendix B: Minnesota State Standards

Grade	**Strand**	**Substrand**	**Standard** Understand that...	**Code**	**Benchmark**
3	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	3.2.2.2.1	Describe income as the money earned from selling resources and expenditures as the money used to buy goods and services.
5	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	5.2.2.2.1	Describe various uses of income and discuss advantages and disadvantages of each.
6	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	6.2.2.2.1	Describe various types of income including wage, rent, interest and profit; explain the role that the development of human capital plays in determining one's income.
9 10 11 12	2. Economics	2. Personal Finance	2. Personal and financial goals can be	9.2.2.2.1	Establish financial goals;

			achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.		make a financial plan considering budgeting and asset building to meet those goals; and determine ways to track the success of the plan.
9 10 11 12	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	9.2.2.2.2	Evaluate investment options using criteria such as risk, return, liquidity and time horizon; evaluate and apply risk-management strategies in investing and insuring decisions.
9 10 11 12	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	9.2.2.2.3	Evaluate the benefits and costs of credit; describe the “three C’s” of credit (character, capacity and collateral) and explain how these attributes can affect one's ability to borrow, rent, get a job and

					achieve other financial goals.
9 10 11 12	2. Economics	2. Personal Finance	2. Personal and financial goals can be achieved by applying economic concepts and principles to personal financial planning, budgeting, spending, saving, investing, borrowing and insuring decisions.	9.2.2.2.4	Explain the pricing, sales, advertising and other marketing strategies used to sell products from a consumer perspective.