Teachers' Perceptions Regarding Financial Literacy in Kindergarten Through Grade 2

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Abstract

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Teachers' Perceptions Regarding Financial Literacy in Kindergarten Through Grade 2

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Financial literacy is an important life skill, yet how are we fostering understanding in our youngest students? Unless schools begin instruction on money concepts and skills at an early age, the majority of the students will not have the needed exposure until much later in their educational career. This study used a mixed methods research approach to explore kindergarten through second grade teachers' perspectives regarding the curriculum and instruction of financial literacy.

The study had two main phases. Both phases consisted of a two-step process of data collection and analysis. Phase 1 was qualitative and comprised interviews of teachers who taught in K–Grade 2 at three schools in Ohio. The interviews were coded descriptively, and the author used codeweaving to analyze the data for common themes. From these results, an online survey was created and distributed in Phase 2.

Phase 2 was quantitative and involved a survey of a broader sample of K–2 teachers in Ohio. This phase tested the veracity of the Phase 1 results. Phase 2 determined whether generalizations could be made regarding teachers' perceptions of students' prior knowledge and skills, and of students' cognitive readiness to understand financial literacy content. Perceptions from the two phases were triangulated with theory and research relating to child development to explore what, when, and how teachers are teaching money concepts and skills in their classroom.

The findings indicate that K–2 teachers see value in teaching financial literacy concepts and skills in their classroom, but they are unsure of the expectations for implementation. In particular, the majority of the participants were unaware of the Jump$tart Coalition for Personal Financial Literacy's *National Standards in K–12 Personal Finance Education* and demonstrated confusion on state and Common Core standard expectations.

During this study, making connections and providing students with genuine experiences were frequently identified as important practices. Though teachers' knowledge of financial literacy expectations is limited, teachers incorporate money concepts and skills into their classrooms by employing such strategies as calendar time, school stores, behavior systems, games, and centers. They use a moderate amount of technology and a variety of manipulatives to support instruction.

These results indicate a need to inform teachers about the written and intended curriculum regarding financial literacy and a need to align the various sets of standards to ensure a cohesive and comprehensive K–12 financial literacy curriculum. With the proper guidance and implementation, teachers at all grade levels can experience success in preparing their students for a financially stable future.

Dedication

To my amazing triplets, Evelyn, Jocelyn, and Madelyn.

Never stop working toward your dreams.

"She believed she could, so she did."

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Though it was my dream to pursue my doctorate in Mathematics Education, I could not have done it without the love and support from my family and friends. Josh, you took over the role of both father and mother at times. I cannot tell you enough how much I appreciate everything you have done for me and our beautiful daughters.

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Mom and Dad, you have helped in so many ways during my years traveling to Athens. From babysitting to lending a listening ear, thank you for believing in me and trusting me to know what I was doing. I have worked my whole life to make you proud. You lead by example and I hope that I will live up to your expectations.

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Heather, thank you for not only being a friend but supplying me with a home away from home. You are so caring and generous and I am forever grateful to call you my friend.

The lovely Mary, I want to thank you for the prayers, laughs, and cries that we have shared over the years. You are such an amazing individual, and I sincerely thank you for everything you have done for me.

Finally, to God; my strength, my determination, my passion, and my savior. Thank you for this opportunity to serve You in the field of mathematics education. Let me touch the lives of others the way the above mentioned have blessed me. “For it is with your heart that you believe and are justified, and it is with your mouth that you profess your faith and are saved.” Romans 10:10

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Chapter 1: Introduction

Financial literacy is an important life skill, so much so that standards have been created for the introduction and reinforcement of this type of literacy in kindergarten through Grade 12 (Bosshardt & Walstad, 2014). In Ohio, all students are expected to achieve financial literacy standards and an awareness of money concepts, yet these ideas usually are not addressed until middle and high school business, economics, or consumer science courses (Collins & Odders-White, 2015). Unless schools provide consistent financial literacy opportunities to students from an early age, children will continue to struggle to understand the value of money and to mature into financially literate adults.

What is the natural home for financial literacy in the K–12 curricula? Some would say that the natural place is in mathematics. Others view it as social studies (or life skills) content. Finally, there is the belief that financial literacy can be cross-curricular to include not only mathematics and social studies, but also language arts or other parts of the curriculum. Until educators see the value in teaching money concepts and skills, and agree on how and where to do so, financial literacy will continue to be a content area that is "pushed off" until the middle and high school grades; such postponement eliminates the opportunity to explore this content in a developmentally appropriate continuum.

Educational Significance

The mission of the United States Department of Education (2011) is to "is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access" (para. 1). Financial literacy is and will continue to be a content area aligned with this mission that children must develop and understand during the course of life. Though there are *National Standards in K–12*

Personal Finance Education, how many teachers are aware of their existence and incorporate them into the curriculum? By exploring this question along with students' previous experiences, cognitive abilities, and child development, schools can create an applicable and cohesive curriculum to better prepare their students to become financially literate adults.

This study aims to uncover an appropriate continuum for teaching financial literacy by examining the portal from which students get much of their information—teachers. In examining teachers' perspectives on their students' prior knowledge and cognitive ability to understand such concepts, as well as the teacher's value in educating students on money-related skills, we as an educational community will have a better grasp of when and how students develop the proficiencies to mature into financially literate adults.

Purpose of the Study

This study explored teachers' perceptions regarding financial literacy and how it is taught in kindergarten through second grade classrooms. The purpose of this exploratory sequential design was to first qualitatively explore with a small sample of seven K–2, Ohio teachers and then to determine if the qualitative findings generalized to a large sample of K–2 teachers throughout Ohio.

The first phase of the study was a qualitative exploration of (a) teachers' perceptions regarding students' prior experience with financial concepts and skills, (b) their perceptions of their students' cognitive readiness to develop financial concepts and skills, and (c) the teachers' own perceptions on the importance of teaching financial concepts and skills at the primary grades. Along with these perceptions, I investigated

how teachers' perceptions influence their planning and instruction through what, when, and how financial concepts and skills are taught in kindergarten through second grade.

I collected qualitative data through interviews of a total of 7 kindergarten, first, and second grade teachers, in their classroom, after school hours. From this initial exploration, the qualitative findings were used to develop a survey that was administered to a large sample. The quantitative phase consisted of an online survey assessment collected from public school K–2 teachers in Ohio.

The following research questions served as a guide for the study:

1. What are teachers' perceptions of students' prior experience, knowledge, and skills regarding financial literacy?
2. What are teachers' perceptions of students' cognitive readiness to develop knowledge and skills regarding financial literacy?
3. What are teachers' perceptions of the importance of teaching financial literacy in kindergarten through Grade 2?
4. How knowledgeable are teachers regarding financial literacy standards?
5. How do the perceptions and knowledge addressed in Questions 1–4 influence the planning and instruction of financial literacy standards?

Description of the Research Questions

The central question of this study explored how teachers' perceptions on financial literacy influence the intended and enacted curriculum in kindergarten through second grade. Through their perceptions, I examined their beliefs regarding prior experience, cognitive readiness, and teaching money concepts and skills, as well as their account of

what, when and how financial literacy curriculum was being implemented in the classroom.

The first research question related to teachers' perceptions of their students' prior experience, knowledge, and skills regarding financial literacy. According to Carpenter, Fennema, Peterson, Chiang, and Loef (1989) "instruction should build on students' existing knowledge" (p. 525). In order to properly introduce money concepts and financial literacy skills, teachers must be aware of the preconceived notions and possible misconceptions that are brought with the student into the classroom. Children from a young age become contributors to the economic society. The National Endowment for Financial Education (NEFE, 2001) reported that,

> To add to the complexity, kids of all ages are targeted by mass marketers pushing a single message—buy everything and anything you want now. Plus, money is much more abstract than it used to be. Seeing mom and dad use credit cards, debit cards, ATM machines, and the Internet—instead of cash—can be confusing, especially for young children (p. 2).

I was curious about what teachers' believed concerning their students' previous knowledge of money concepts and skills, and where this knowledge was obtained.

The second research question addressed teachers' perceptions of students' cognitive readiness to develop knowledge and skills regarding financial literacy. Some educators do not see financial literacy as an appropriate component of the kindergarten through second curriculum, but Collins and Odders-White (2015) state that "…the evidence in support of starting economic and financial education early has grown. Studies of cognitive development have shown that an understanding of concepts related to saving

money (e.g., ownership, conservation, planning, deferred consumption) can be acquired in early childhood" (p. 106). Some money concepts and skills are abstract, and I was curious about which aspects of financial literacy teachers' believed that students could understand at each particular grade level.

The third research question stemmed from the movement to make learning, in particular mathematics, more meaningful and applicable to students' lives. In the effort to equitably teach *all* children mathematics, The National Council of Teachers of Mathematics (2000) emphasized the need to connect mathematics to real-life applications and encouraged the use of project-based learning. Every functioning member of society will need basic financial knowledge to survive, so I wanted to know to what extent teachers valued the importance in teaching financial literacy in the kindergarten through second grade classrooms. Do they see teaching money concepts and skills as important even if it is not written directly into the standards? Are they aware that "some education researchers argue that financial resources have their strongest effect on children's education outcomes early on it the child's life, not at the point of college entry" (Assets and Education Initiative, 2013, p. 16).

The fourth research question investigated how knowledgeable teachers are regarding financial literacy standards. I was curious regarding whether teachers knew that the *National Standards in K–12 Personal Finance Education* even exist and what kind of influence these standards had on their intended and enacted curriculum.

The last research question asks how the perceptions explored in Questions 1–4 influence the planning and instruction of financial literacy standards. This question is related to Stein and Smith's (2010) work on curriculum effectiveness. They write that,

> Curriculum does not influence students' learning directly but rather, unfolds in a series of temporal phases from the printed page (the written curriculum), to the teachers' plans for instruction (the intended curriculum), to the actual implementation of curriculum-based tasks in the classroom (the enacted curriculum) (p. 353).

So how do teachers' perceptions of students' previous experiences, child development, and their own values regarding financial literacy affect the planning and implementation of lessons on money concepts and skills?

An Overview of the Research Design

The study is a mixed method, two-phase exploratory sequential approach in which I created a survey from the qualitative interview results to collect data for the quantitative phase in order to generalize to a larger sample. Both Phase 1 and Phase 2 consisted of a two-step process. By using an exploratory sequential mixed methods design, I had the opportunity to examine a broader perspective of teachers' perceptions regarding financial literacy and get a better understanding of their knowledge of the concept, strategies for implementation, challenges they face during implementation, and suggestions for improving student learning.

Working Definitions of Terms

Financial literacy. For this research, the term *financial literacy* was based on the following definition: A *financially literate person* is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). This definition is

consistent with those used for other forms of literacy, such as general literacy, spatial literacy, and statistical literacy.

Financial concepts and financial skills. *Financial concepts and skills* are that which kindergarten through Grade 2 students need to achieve as stated by standards found in the *Ohio's New Learning Standards: Social Studies Standards* (*ONLS: SSS*), the *Common Core State Standards for Mathematics*, and the *National Standards in K–12 Personal Finance Education*. For this research, the terms *money concepts and skills* and *financial concepts and skills* were used interchangeably, meaning the all-encompassing ability to understand and perform mathematical tasks related to financial literacy. However, when used separately, *financial concepts* are those that require a deeper understanding beyond memorization, such as saving, loans, and debt. *Financial skills* are performing basic mathematical operations related to money, such as coin identification, sorting, and counting.

Perceptions. This study frequently refers to teachers' perceptions regarding financial literacy. *Perception* will be defined as a way of regarding, understanding, or interpreting something. For example, when asking a teacher's perception on a topic, it is that which they believe to be truth.

Intended curriculum. The definition of *intended curriculum* used in this study is "the teachers' plan for instruction" (Stein & Smith, 2010, p. 353). The intended curriculum is the content that the teacher prepares for instruction regardless of what is actually taught.

Enacted curriculum. This working definition also comes from Stein and Smith (2010). The *enacted curriculum* is "the actual implementation of curriculum-based tasks

in the classroom" (p. 353). The enacted curriculum is that which is actually happening in the classroom regardless of the teacher's intention or plan and independent of student learning.

Developmentally appropriate practice. *Developmentally appropriate practice* is used throughout this research as defined by the National Association for Educating Young Children (Bredekamp & Copple, 1997). The NAEYC Governing Board issued the position statement defining *developmentally appropriate practice* as,

> …the outcome of a process of teacher decisionmaking that draws on at least three critical, interrelated bodies of knowledge: (1) what teachers know about how children develop and learn; (2) what teachers know about the individual children in their group; and (3) knowledge of the social and cultural context in which those children live and learn (p. vii).

A method is considered developmentally appropriate if it accounts for both the age and needs of the distinctive child.

Prior experience, knowledge, and skills. Understanding our students' backgrounds and previous experiences can be beneficial in planning for instruction. In this study, *prior experience, knowledge, and skills* is that which was obtained outside of the current classroom situation, in settings such as the home, society, or a previous grade level.

Cognitive readiness. *Cognitive readiness* is used to describe the mental capacity to understand and perform the skills, knowledge, and abilities needed to grasp a particular concept. For example, a typical kindergarten child will have the cognitive readiness to count to ten using pennies as a representational tool.

Assumptions

For this study, I assumed that financial literacy is and will continue to be a life skill that must be maintained in order to become a successful contributing member of society. The President's Advisory Council on Financial Capability for Young Americans (2015) found concern in youths' financial understandings stating that "financial skills and knowledge will determine how successful our economy will be in the years ahead" (p. 7).

Further, I assumed that all participants answered truthfully during both phases of the study. The participants were assured that both their anonymity was maintained as well as the data kept confidential. Participants may withdraw their data at any time throughout the study without the threat of ramification.

Delimitations

A delimitation of the study was that participants were chosen for Phase 1 based on convenience and location. These participants may not accurately represent kindergarten through Grade 2 teachers in districts with differing socio-economic status. Phase 2 participants were also teachers within the same Midwestern state of Ohio but with varying school district socio-economic status. Location is again a delimitation to the study and findings cannot be generalized to the United States without further research.

Limitations

Response bias can be a limitation to this study. Some teachers might be concerned that they are being evaluated on their effectiveness in the classroom which can lead to saying what they think the researcher or administration would want to hear. I emphasized to the participants that this study is not an evaluation, but rather a study to gain insight into their perceptions and information on the actual happenings within the classroom.

Another limitation pertains to myself as a researcher. It is important in qualitative research to maintain neutrality and to not interject ones' beliefs onto the participants. I have an opinion on the importance of teaching financial literacy in the primary classroom, but this view was not shared nor included in the interviewing process.

Chapter 2: Literature Review

Financial literacy has grown in popularity among educational topics lately, but what impact does this have in primary education? This literature review for financial literacy at the early elementary level includes an in-depth look into the varying definitions of financial literacy, the importance of being financially literate, and the role financial literacy in education. Also explored are the standards associated with financial literacy, curriculum and materials that support the instruction of financial literacy, and the challenges for implementation.

Included in this chapter is the theoretical framework for the research study and an explanation of how these theories support the instruction of money concepts and skills in kindergarten through second grade. Students' prior knowledge and cognitive ability are explored as influences on the curriculum along with teachers' perceptions and the impact these have on the curriculum.

What Is Financial Literacy?

As mentioned in Chapter 1, a financially literate person is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). In this research, I focused on financial literacy for the primary age child (approximately 5 years to 8 years of age). Financial literacy at this level refers to the financial concepts and skills that kindergarten through second grade students need to achieve on their path to becoming a financially literate adult.

Becoming financially literate is not seen as an "absolute state; but rather, a continuum of abilities that is subject to variables throughout the life cycle. It is an evolving state of competency that enables individuals to respond effectively to ever-changing personal and economic circumstances" (Jump$tart Coalition for Personal Financial Literacy, 2015, p. 1). The goal of these *National Standards in K–12 Personal Finance Education* is not to have students memorize financial terms, but rather for them to develop the ability to find answers and seek solutions to making sound decisions regarding finances. The goal of the standards was not to serve as a national curriculum for the United States, but rather to serve as a model that encourages consistency while allowing for local customization.

At the international level, the Organisation for Economic Co-operation and Development (OECD, 2012) considers financial literacy to be an outcome of financial education. The OECD defines financial literacy as,

> …knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life (p. 144).

The difference between this objective and JumpStart's is that OECD included the aspect that individuals' decisions impact a greater society.

Collins and Odders-White (2015) streamlined the purpose of financial education programs to one that "prepare students for financial decisions they will face as adults" (p. 112). This abbreviated goal of financial literacy is shared by many of the researchers. The

President's Advisory Council on Financial Capability for Young Americans (2015) stated that the Council's recommendations to equip children to make smart financial decisions provide "targeted opportunities to improve financial capability, promote lifelong asset building, and empower young Americans to achieve greater financial stability" (p. 16). It is also recommended that this be a collaborative effort. The report states that,

> When we find new and effective ways to promote financial capability, and resources and tools to help achieve it, we need to share those successes. We also need to encourage people to keep building financial capability and, ultimately, achieve financial well-being (p. 13).

But what constitutes *financial well-being*?

According to Drever, Odders-White, Kalish, Else-Quest, Hoagland, and Nelms (2015), financial well-being "is a multifaceted concept that transcends both traditional financial literacy and the broader notion of financial capability" (p. 13). Consumers defined financial well-being as "having control over one's day-to-day, month-to-month finances, having the capacity to absorb a financial shock, being on track to meet financial goals and having the financial freedom to make the choices that allow one to enjoy life" (Consumer Financial Protection Bureau, 2015, p. 19). These definitions imply that while financial literacy incorporates the concepts and principles surrounding economics, it also involves behaviors such as "setting goals; being able to wait; avoiding impulsive, irreversible decisions; and making good choices and applying them in practice" (Birbili and Kontopoulou, 2015, p. 49).

When Did Financial Literacy Become Important?

During the 1960s through 1980s financial education was known as consumer education, and was usually offered to the lower mathematically tracked student (Useem, 1991). The content included basic addition, subtraction, and multiplication concepts associated with consumer relations. As mathematics started to reform in the 1980s, tracking faded away to a curriculum geared towards all students and the standards movement began (Morton, 2005). In the effort to equitably teach *all* children mathematics, The National Council of Teachers of Mathematics (2000) emphasized the need to connect mathematics to real-life applications and encouraged the use of project-based learning, which, in turn, decreased the amount of consumer mathematics being presented. Hence, students were receiving most of their education regarding money from home (Mandell, 1998, 2002; 2004).

In response to the decrease of financial literacy skills being taught in schools, The Financial Literacy and Education Commission was established in 2003 under the Financial Literacy and Education Improvement Act by Congress. The purpose of this commission was to develop a national strategy on financial education. Along with this, in February of 2006, the National Association of State Boards of Education (NASBE) convened its *Commission on Financial and Investor Literacy*. The NASBE listened how "millions of Americans have experienced an erosion in their economic and social security. Advances in technology and economic globalization have accelerated the pace of change in our economy, increasing both job insecurity and the awareness of this instability" (NASBE, 2006, p. 5). Financial education was becoming essential for our children's financial future.

The President's Advisory Council on Financial Literacy was then created in 2008 to help Americans better understand financial and economic matters pertaining to their everyday life. (President's Advisory Council on Financial Literacy, 2009). In 2012, the first large-scale international financial literacy assessment was reported by the Programme for International Student Assessment (PISA) where the United States ranked ninth. The President's Advisory Council on Financial Capability for Young Americans (2015) stated that "Fifteen-year-old American students fell short of global financial literacy expectations in 2012" (p. 7). They found reason for concern because young Americans' "financial skills and knowledge will determine how successful our economy will be in the years ahead" (p. 7).

In 1998, the first known national standards in financial education, published as *Personal Finance Guidelines and Benchmarks*, was created by the Jump$tart Coalition. An updated version was released in 2001, and in 2006, "as the world-wide financial education effort evolved and matured, a new Jump$tart task force undertook a major revision of the National Standards–expanding the original four content categories into six and incorporating new ideas about effective financial education" (Jump$tart, 2015, p. 3). Released in 2007, the new *National Standards in K–12 Personal Finance Education* became utilized throughout the country. Now, in its fourth edition, the *2015 National Standards in K–12 Personal Finance Education* was released, including the significate addition of new kindergarten benchmarks (Jump$tart, 2015). While there is not a national adoption of financial literacy standards and limited research is available on the involvement of teachers in the development of finance standards, the *2014 Survey of the States* recorded for the first time that "all 50 states and the District of Columbia include

economics in their K–12 standards" (Council for Economic Education, 2014). Financial literacy has secured its place in American education, but the next question is "When should financial literacy be introduced into the curriculum?"

Where Does Financial Literacy Belong in Education?

Early childhood implementation. There is much debate on the best time to introduce financial literacy and money concepts. Though there is not an abundant amount of research regarding financial literacy in the early elementary years, it is recently increasing. Research shows that many advocate for addressing financial literacy in the early elementary years if not sooner (Birbili & Kontopoulou, 2015). The Credit Union National Association's states that,

> Children learn about money from many sources. Long before they enter school, they observe adults using money and buying things. They watch television daily and see thousands of commercials each year. Like it or not, money is a part of your preschooler's life (para. 5).

The Assets and Education Initiative (2013) claims that "some education researchers argue that financial resources have their strongest effect on children's educational outcomes early on in the child's life, not at the point of college entry" (p. 16). The Jump$tart Coalition agreed by "Recognizing that children develop an interest in money and begin to learn financial basics well before entering school" (2015). Thus, kindergarten knowledge statements and benchmarks were added to the document. The President's Advisory Council on Financial Capability for Young Americans (2015) concurred by stating that, "While evidence is scarcer on the financial capability of children under age 15, we believe that today's teens and young adults who lack financial

capability not long ago were children who did not have opportunities to gain financial knowledge and skills." The Council went on to report that "Despite the clear need for financial education for young people to make sound decisions and have more positive outcomes, too many children do not obtain financial education early in their lives" (p. 8).

The NASBE supports this claim recommending that "the earlier a student begins learning these concepts, the more opportunities schools will have to impact behavior" (2006, p. 20). A study by Friedline (2015) reported that "It appears that children are developmentally capable of economic agency as early as age five or six" (p. 57). Young children have the financial capability to understand simple saving behaviors and policies that aim at developing these economic agencies should begin at age five or six (Sherraden, Johnson, Barong, & Elliot, 2013; Friedline, 2015). The consensus is that "economic and financial education ought to start early and be repeated often" (Schug and Hagedorn, 2005, p. 68).

Financial literacy standards. Though many might automatically think mathematics is where the schools would cover financial literacy, the topic is actually addressed in Ohio's New Learning Standards: Social Studies Standards under the economics strand. It is in this document that financial literacy is defined as "the ability of individuals to use knowledge and skills to manage limited financial resources effectively for lifetime financial security" (Ohio Department of Education, 2010). This definition is almost exact to that used by the Jump$tart Coalition. By examining each grade level, we can see that the financial literacy focuses on more than just coin recognition. Themes include wants, scarcity, currency, decision-making, goods/services, opportunity costs, earning, career attributes, income, taxes, entrepreneurs, budget, purchasing, contracts,

money management, financial responsibility, financial experts, planned purchasing decisions, net worth, savings, investments, financial regulations, credit, debt, trade-offs, insurance, and identity protection.

The first actual financial literacy content standard in the *ONLS: SSS* is stated in Grade 1. It reads, "Currency is used as a means of economic exchange" (Ohio Department of Education, 2010). Here the students are being introduced to the fact that coins and bills symbolize worth and value and can be used in exchange for goods or services. In Grade 2 the financial literacy statement is "People earn income by working" (Ohio Department of Education, 2010). The value is placed on the individual and their responsibility to work in order to obtain money. Grade 3 has two standards regarding the financial decision making process. The content statements are that "Making decisions involves weighing costs and benefits" and "A budget is a plan to help people make personal economic decisions for the present and future and to become more financially responsible" (Ohio Department of Education, 2010).

It is in Grade 4 that the concept of saving arises. The content statement reads that students will understand that, "Saving a portion of income contributes to an individual's financial well-being. Individuals can reduce spending to save more of their income" (Ohio Department of Education, 2010). Grade 5 elaborates on earning potential with the statement that "Workers can improve their ability to earn income by gaining new knowledge, skills, and experiences" (Ohio Department of Education, 2010). Not only is the importance of working emphasized, but that continuing education, or professional development, makes us better at our jobs and provides potential for advancement in our careers.

Grade 6 *ONLS: SSS* addresses our responsibility as consumers. The standard is based on a life skill that students can use when making purchases. It reads, "When selecting items to buy, individuals can compare the price and quality of available goods and services" (Ohio Department of Education, 2010). Being financially literate is understanding the importance of being knowledgeable about purchases and how money can be saved or quality sacrificed depending on cost. Grade 7 however does not have a specific content statement under the financial literacy strand.

Grade 8 introduces the concept of banking. The statement emphasizes that "The effective management of one's personal finances includes using basic banking services (e.g., using savings accounts and checking accounts) and credit" (Ohio Department of Education, 2010). Here the students are presented with the concept of borrowing money to complete a purchase. This strand introduces vocabulary such as interest, credit, and debt, and the importance of understanding identity protection.

In the High School *ONLS: SSS*, students get a much deeper look into economics and financial literacy. It is listed as a course with the theme of exploring,

> …the fundamentals that guide individuals and nations as they make choices about how to use limited resources to satisfy their wants. More specifically, it examines the ability of individuals to use knowledge and skills to manage limited financial resources effectively for a lifetime of financial security (Ohio Department of Education, 2010).

This course is divided into topics including, economic decision making and skills, fundamentals of economics, government and the economy, global economy, working and earning, financial responsibility and money management, saving and investing, credit and

debt, and risk management. Students are responsible for learning a great deal more about financial literacy than they were in the first eight years of schooling. Some districts offer specific courses such as economics to properly address each strand and topic above, but others embed them into current courses and may not have the depth needed for students to fully grasp the concepts (Lucey & Maxwell, 2011).

In mathematics, specific money standards are not as prevalent. For example, in the *Common Core State Standards for Mathematics*, adopted as *Ohio's New Learning Standards: Mathematics*, the actual word "money" does not appear until the second grade. One may argue that the concepts of money and coin recognition may begin much earlier than second grade. For instance, in kindergarten it would be a developmentally appropriate practice to teach the sorting of pennies, nickels, dimes, and quarters according to their attributes. The students also could count the number of coins in each group. In Grade 1, students could use money to skip count by 5s and 10s. They could also use it to model in problem solving. Teachers could justify using money as a tool to help incorporate the Standards of Mathematical Practice into their room through modeling mathematics as well as using mathematics to model financial literacy.

In Grade 2 there is a specific standard for working with money. It falls under measurement and states that students will "solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?" (Common Core State Standards Initiative, 2010). Here the students are responsible for recognizing coins and bills and representing them appropriately, counting collections of coins, and problem

solving with money. This might be considered a hefty task, especially if students have never been introduced to money concepts previously.

The word "money" is not used again until the fourth grade measurement standard that states:

> Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale (Common Core State Standards Initiative, 2010).

Now the students are responsible for representing money in decimal form, and once again problem solving with money. Money is not addressed again until the high school concept of functions and investments.

As one can see, financial literacy and money concepts are viewed differently by *Ohio's New Learning Standards: Social Studies* and the *Common Core State Standards for Mathematics*. From a Social Studies perspective, students are learning how money "works," its worth, and how to make good financial decisions. Mathematics standards are focused on counting money, computation skills, and problem solving with money. So where exactly does money "fit" into the curriculum and how is it taught specifically in the primary grades of Kindergarten through Grade 2? Should teachers really wait until the second grade to introduce coin recognition or is this embedded in the first grade social studies financial literacy strand? Are children really able to problem solve with money by the second grade without previous practice or foundation regarding money

concepts? They are responsible for understanding that one earns an income for working, but can they count what they have earned? These questions and more were explored in this research study along with an in-depth look at Grade K–2 teachers' perceptions on introducing students to the world of financial literacy.

Teachers' view of financial literacy. According to the literature, the main concern for teachers, especially at the early elementary grade levels, is whether financial literacy will become another curriculum subject, specifically one that will require standardized testing (Birbili & Kontopoulou, 2015). Currently scholars and many policy documents claim that "financial literacy education is not another 'subject' or 'topic' that needs to be taught separately or in isolation from other curriculum areas" (Birbili & Kontopoulou, 2015, p. 49). Although there are financial literacy curricula and programs that exist, many researchers agree that "effective programs for young children infuse financial literacy concepts and practices throughout the curriculum and teach them in a cross-curricular way" (Birbili & Kontopoulou, 2015, p. 49). Educators tend to agree in the integration approach to financial literacy.

Another concern in teachers' perspectives is lack of confidence or mathematical skills to successfully implement financial literacy into their classroom. This is a valid point because "effective teaching involves both content knowledge and successful instruction; yet it also requires knowledge of the students and the context from which they derive" (Lucey & Maxwell, 2011, p. 50). Teachers not only must have the content background, they also must understand students' previous experience with money and what preconceptions they might bring to the classroom.

In a survey conducted by Otter (2010) given to teachers regarding their attitudes and beliefs about teaching financial literacy, results drew four main conclusions.

> Teachers in this survey (a) support efforts to include personal finance in the K–12 curriculum, (b) believe instruction should begin in elementary school and that the best way to deliver personal finance instruction is through both a stand-alone course and embedding concepts in other courses, (c) see time constraint as the biggest barrier to personal finance instruction, and (d) possess a basic level of financial literacy (p. 8).

This population of teachers supported the inclusion of financial literacy into the curriculum and believed that the best way to do so was integrated through math and social studies subject areas. Like other studies though, Otter (2010) found that teachers are overcome with required state standards and wanted nothing else formally added to the curriculum. Feedback included quotes such as "Do NOT add anything else to the curriculum without taking something away" and "Teachers are OVERWHELEMED with the mandated state standards. Until something is done to modify/reduce the burden on teachers, NOTHING ELSE should be added" (p. 10).

Curriculum and materials to support financial literacy. The curriculum for financial literacy in the early elementary years is an area in desperate need of research. Collins, Odders-White, and Walsh (2012) point out that, "as an increasing number of schools incorporate financial education into their curricula, research that determines the appropriate content and structure of this education is critically important." There are a number of options available for financial literacy curricula, but,

> …more research is needed to determine which curriculum components are likely to be most effective at improving these near-term outcomes. This type of research will aid in the development of models of financial learning and can serve as a foundation to develop and refine hypotheses that can later be tested using longitudinal evaluations (working paper).

Currently, "existing curricula at the elementary-school level typically cover basic money management concepts such as saving, budgeting, banking, investment, credit, the time value of money, and financial decision-making" in the basic form (Collins et al., 2012, working paper). Grody et al. (2008) write that programs need to go beyond the basics and extend to real-world application,

> However, the current educational literature, teaching aids and school curriculum for the elementary school age group appear to be variations of the same old theme of teaching kids solely through old age piggy bank savings and numeration techniques. Depending on their age, children are taught addition and subtraction with pennies, dimes, and quarters and multiplication and division for interest and dividend calculations. Now, while these concepts are certainly still valued, this was an earlier generations' world of finance, not the concepts of finance our children have been born into. Our premise is that understanding the relationship of work and money, money and ATM machines, money and investments, credit cards and tangible product acquisition, bill payment mechanisms, monthly statements, retirement savings, taxes, deficits, et al is a more fundamental and current foundation for a financial education for children in our modern age (p. 10).

Drever et al. (2015) agrees with the application-based teaching method for financial literacy. They state that "Experience-based learning is already being increasingly incorporated into financial education for young adults, but this review suggests that even greater emphasis in this area would be beneficial." They address young children specifically when claiming that by "emphasizing dual-generation financial modeling and learning for elementary and middle school students and their parents" children's ability to form positive financial habits would greatly improve (p. 33).

The key to a successful financial literacy curriculum or program is to make sure it is developmentally appropriate for the early elementary student (Van de Walle, 2007; Martin & Oliva, 2001; Berti & Bombi, 1981; Collins et al., 2012; Lucey & Maxwell, 2011). Birbili and Kontopoulou (2015) suggest that regardless of the program or method selected, "To achieve changes in behavior, financial literacy education must happen in a systematic, coordinated, and intentional way, with clear objectives and expectations, just like with any other curriculum area or subject" (p. 49). Children will cognitively develop at different rates, and understanding the student's ability to reason abstractly,

> …may relate to children's acquisition of economic knowledge pertaining to coins, savings accounts, and banks. As children develop the ability to think abstractly, they may simultaneously develop the ability to more accurately identify coins and understand the purposes of savings accounts and banks (Friedline, 2015, pp. 46–48).

Teachers need to be aware of cognitive development stages in regards to understanding economic concepts so that they may instruct each student appropriately.

As mentioned previously, early childhood education teachers might not want to see financial literacy become a formal curriculum (Birbili & Kontopoulou, 2015; Otter, 2010). Some authors advocate the necessity of incorporating financial literacy into mathematics. Harvard Business School professor of finance, Shawn Cole claims that formal lessons in financial literacy is not the answer to becoming a fiscally responsible adult, rather it is mathematics.

> Without strong math skills, he says, people tend to use more emotional ways to invest, spend or save their money. What's more, people with less math experience make worse financial mistakes with issues like compounding or underestimating how quickly interest accumulates (Wells, 2015).

While mathematics is certainly a major component of financial literacy, researchers do not see it as the only curricula area. Lucey and Maxwell (2011) write that "Financial education represents a multifaceted concept that affects several different content areas. Since curricula should parallel the nature of the content, curricula of several content areas, including mathematics, social studies, and language arts, should address financial education tenets" (p. 55). Collins et al. (2012) also reiterate this stance that "understanding the effectiveness of individual mechanisms will allow curricula to be adapted to educators' needs, because the mechanisms can be transferred to different instructional designs and settings" (Manuscript in preparation). The curriculum does not have to be a one-size-fits-all program, but rather emphasize the important aspects of financial literacy and apply them where educators see fit and developmentally appropriate.

Challenges to implementation. The literature shows a fairly consistent list of challenges to teaching financial literacy in K–Grade 2. They include:

- Lack of administrative interest
- Lack of student interest
- Lack of suitable curriculum
- Lack of classroom instruction time
- Lack of subject matter knowledge

This list is a compilation from researchers on the challenges that teachers face when implementing financial literacy in the early elementary grades (Otter, 2010; Lucey & Maxwell, 2011; Collins et al., 2012; Batty, Collins, & Odders-White., 2015).

The lack of administrative interest is already progressing towards change with Ohio now mandating that economic education is included in the K–12 Standards and student testing is required (Council for Economic Education, 2014). Student interest may improve by starting early in the children's academic careers and the incorporation of in-school banking programs such as Save for America or independent bank or credit union partnerships with schools which give students the opportunity to practice financial literacy skills using their own accounts.

Curriculum challenges are improving yearly with now more than 28 existing child-targeted financial literacy programs in the United States as assessed and evaluated by Holden, Kalish, Scheinholtz, Dietrich, and Novak (2009), in attempt to find quality financial literacy products. More research needs to be conducted to examine what is being taught in the classrooms concerning financial literacy at the K–2 grade levels.

Integrating the topic into various subject areas addresses the concern of classroom instruction time. Dewey (1938) explains that students learn best through active participation. By encouraging students to engage in activities that are meaningful and relevant to the various subject areas, financial literacy can be taught as an applied life skill.

Finally, the lack of subject knowledge is a serious reality for early childhood education teachers, and the need for professional development and support in improving financial literacy skills is imperative. It is essential that teachers feel confident in their skills and their methods for teaching financial literacy, but in truth, they are not. Many of these challenges are addressed by the Jump$tart Teaching Training Alliance which is "a collaborative endeavor designed to standardize teacher training in personal finance through a shared Model called *Jump$tart Financial Foundations for Educators*, which will ensure consistency and rigor in teacher training programs across the country" (Jump$tart Coalition for Personal Financial Literacy, 2014). This initiative was a response to the research conducted by the University of Wisconsin—Madison, which found that "relatively few teachers felt adequately prepared to teach personal finance or use their state's standards" (Hensley, 2013, p. 3).

Part of the concern was lack of preparation from the start. Lucey and Maxwell (2011) point out that,

> When the majority of these teacher candidates learned mathematics (during the 1980s and 1990s), many programs lacked the mathematical instruction to give these candidates adequate financial underpinnings. Although educators are concerned about each learner developing a conceptual understanding of

> mathematics, this process is dependent on both the curriculum and knowledge of the teacher (p. 49).

A closer look at preservice programs would give a more in-depth perspective of what financial literacy knowledge educators are being taught and whether the content is even addressed in preparation programs.

Area for Exploration

The lack of abundant literature shows that financial literacy in the early elementary grades is still a new, yet evolving concept in education. With the current mandates for financial literacy standards and the future of what might be to come, researchers need to further investigate what is actually being taught in the classrooms and how. Does the intended curriculum of implementing financial literacy standards match the enacted curriculum? Is there a preferred curriculum or program that incorporates these standards and displays best practices that are developmentally appropriate? Is it a generalized idea that financial literacy should indeed begin in kindergarten if not earlier? These are all questions that I intended to address in my research study while exploring more about financial literacy and its position in K–Grade 2.

Theoretical Framework

The theoretical framework was designed from the literature findings and centers on the research questions of the study (Figure 1). The theory behind this context is that children learn best through building on prior knowledge, making connections, developmentally appropriate practice, experiences, and real world application. Bredekamp and Copple (1997) justify that,

> For decisions to be developmentally appropriate, teachers must draw on at least three important sources of knowledge. The use their knowledge of how young children learn and develop, including knowledge of the sequences and structures of content learning and skills acquisition. Teachers also make decisions in terms of what they know about the individual children and families they work with. Finally, teachers use their knowledge of the social and cultural context within which children and families live (p. 142).

Teachers have perceptions of where each of their students fall within these categories and how to plan to best meet the needs of the individual child. From this planning (or intended curriculum) comes the enacted curriculum of what, when, and how financial literacy concepts and skills are taught in kindergarten through second grade.

Prior knowledge. According to Bredekamp and Copple (1997) "each setting in which a child spends time has its own, different demands. Today, young children experience many transitions during early childhood. These transitions can create discontinuity or contribute to development, depending on what adults do to help children" (p. 121). Students come from various situations and it is the responsibility of the teacher to acknowledge and accommodate for these differences.

Theory. Children begin their educational endeavor with a preconceived notion of how the world works. This is largely based on experience and influences from the home. It will be the goal of the teacher to foster the creation of new mathematical knowledge as children construct ideas by integrating "them into their existing structure of knowledge" (Clements & Battista, 1990, pg. 6). This Piagetian philosophy is grounded in the idea that mathematical ideas are constructed by children, not given as a gift. As Clements and

Battista (1990) state, “These interpretations are shaped by experience and social interactions” (p. 6).

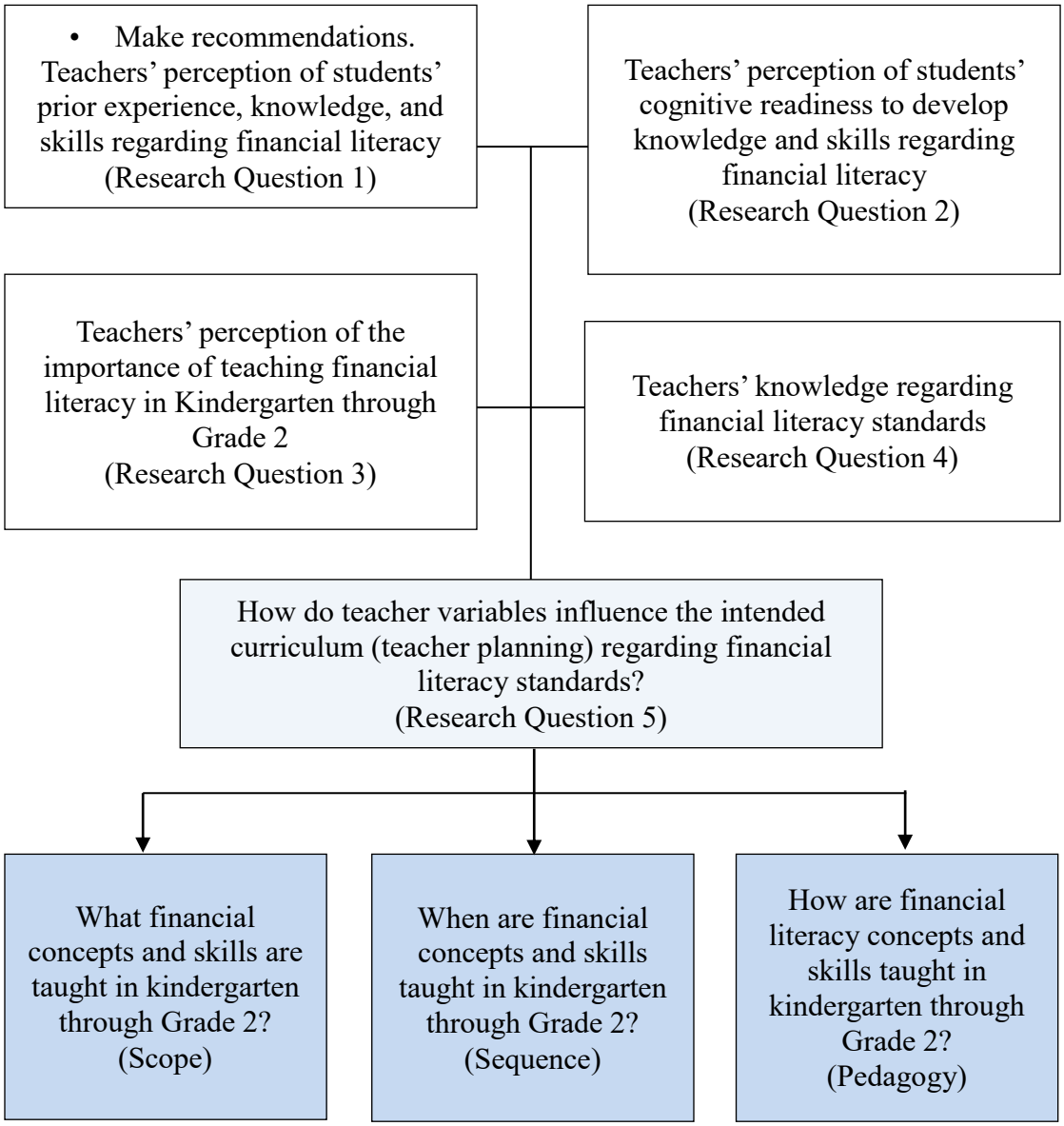

Figure 1. Theoretical framework. This study is based on how teachers’ perceptions of developmentally appropriate practice for teaching financial literacy influence the intended curriculum, and how these intentions result in the enacted curriculum in Kindergarten through Grade 2 classrooms.

Children learn through exploring their world, and will have had five or six years' life experience prior to entering kindergarten. Not all students will come with the same perspective, and the classroom must be conducive for such social discourse.

Application to financial literacy. Usually children enter the early elementary classroom with the realization that money (e.g., coins and bills) gets one something. They might not yet understand coin recognition and value, but many learn the basic idea of money from outside the school setting. In order to properly introduce money concepts and financial literacy skills, teachers must be aware of the preconceived notions and possible misconceptions that are brought with the student into the classroom.

Children from a young age become contributors to the economic society. The National Endowment for Financial Education (NEFE, 2001) reports that,

> To add to the complexity, kids of all ages are targeted by mass marketers pushing a single message—buy everything and anything you want now. Plus, money is much more abstract than it used to be. Seeing mom and dad use credit cards, debit cards, ATM machines, and the Internet—instead of cash—can be confusing, especially for young children (p. 2).

Cognitive ability. According to Bredekamp and Copple, "Children in the primary grades make great strides in cognitive development. This growth affects not only their academic work and other areas of intellectual functioning but also their language and communication abilities and their moral reasoning" (p. 147). Young children are rapidly evolving in cognitive ability from six to eight years of age. Teachers must be aware of these changes and how they can influence multiple aspects of the students' development.

Theory. Three theoretical perspectives are dominant in understanding primary childhood cognitive development:

> Piaget's theory that characterizes this cognition period as one of concrete operations, Vygotsky's theory of sociocultural learning, and information-processing theories that focus on this age group's increased memory capacity and the increasing use of memory strategies and awareness of mental processes (metacognition and metamemory) (Bredekamp & Copple, 1997, p. 147).

Piaget (1968) believed that individuals learned through a process of equilibration, or making sense of inconsistencies in understanding. As children progress through equilibration, they experience four distinct stages of development. These include sensorimotor, preoperational, concrete operations, and abstract thought.

Children in kindergarten through second grade are mostly in the preoperational or the concrete operations stage. In the preoperational stage, children have the ability to understand language and are said to hold a very egocentric perspective. The end of this stage is discernable by the awareness of conservation. Conservation is "the idea that a physical object maintains certain properties even when surface properties are manipulated" (Holden et al., 2009, p. 10).

In the concrete operations stage, children are able to reason through multiple dimensions of a concrete situation. They are undergoing changes in the way they process information and their abilities to solve problems. (Piaget, 1965). Teachers are able to create appropriate problem solving situations and experiences when they fully understand how their students' thinking is advancing.

Lev Vygotsky (1930–1934/1978) is a social development theorist that follows the constructivist view. He coined the zone of proximal development as "the gap between what a learner has already mastered (the actual level of development) and what he or she can achieve when provided with educational support (potential development)" (Coffee, 2009, para. 1). Like Piaget, Vygotsky stressed the importance of the environment to promote learning, but unlike Piaget, he believed that this occurs through social interaction more than manipulative use. Vygotsky believed that "with the help of social interaction, such as assistance from a mentor, students can comprehend concepts and schemes that they cannot know on their own" (Ozer, 2004, para. 11). This "group" learning would help eliminate cultural bias by providing students with experiences that may be unlike those they have learned before. As Holden et al. (2009) write,

> The key idea is that of participation. Culture provides children experience with certain practices (e.g., trading, allowances, sharing). Engagement in practices leads to internalization, the cognitive representation of such activities. Thus what children know about money is the result of their engagement in socio-cultural practices involving money (p. 12).

Application to financial literacy. Researchers are staring to investigate the capabilities of children to understand money concepts and skills. Friedline (2015) states that, "Less attention is given to children's economic agency because it is not widely understood as of when children possess the capabilities to acquire economic knowledge or produce economic behaviors" (p. 42). This is a new area of significance, but one that is now being studied seriously.

Danes and Dunrud (2014) write that, “The life-long benefits of teaching children good money habits make it well worth the effort. Children who are not taught these lessons pay the consequences for a life-time” (p. 1). Collins and Odders-White (2015) take a similar stance,

> …the evidence in support of starting economic and financial education early has grown. Studies of cognitive development have shown that an understanding of concepts related to saving money (e.g., ownership, conservation, planning, deferred consumption) can be acquired in early childhood (p. 106).

Though Piaget did not directly address children’s progression to financial understanding, his work can definitely be applied to learning money concepts and skills. Weebly (2005) applies Piaget’s theory stating that according to the research, “Nearly all studies are based within a cognitive interpretation of development that assumes universal stages that children have to go through in order to achieve an adult understanding of economic concepts” (p. 44).

According to Piaget’s stage characteristics, children of this age level would be primarily concerned with their own personal finances and how their decisions would affect them directly. They would also think one dimensionally and focus on a single aspect of the concept. For example, if a child was given the choice between a dime or ten pennies, they would probably pick the pennies thinking it was more. They would also be limited by their concrete thinking and struggle conceiving that which is not obvious, such as credit and savings. They would have difficulty planning for the future and reasoning the importance of saving money.

Regarding Vygotsky's sociocultural theory to learning, Friedline (2015) writes that, "Social competence and ownership may be relevant for economic agency because development in these areas help children to make sense of the world around them, allowing them to interpret their economic knowledge and behavior" (p. 49). The idea of ownership helps form identity and children can start to feel like they have control of something, such as a savings account. Social competence is also a piece explained as developing social capabilities through interactions with the environment and others. Here children start to understand social norms and relationships (Rose-Krasnor, 1997).

Children are continually learning through observation and "although they may not know the value of money, they are aware that it is essential to acquire the material things that people desire" (Martin & Oliva, 2001, p. 27). While there is yet to be evidence of a specific best practice method to teaching financial literacy to young children, research shows that previous social exposure and practice through actual experience are key contributors to young children's learning of economic behaviors and concepts.

Previous Research

One of the earliest studies actually related to children's understanding of money was that of Schuessler and Strauss (1950). In this study, 141 children ranging in the ages from 4.5 to 11.5 were interviewed about the origin and meaning of money (Schuessler & Strauss, 1950; Strauss & Schuessler, 1951; Strauss, 1952). Through four phases of interviews, Strauss (1952) was able to recognize nine stages of progression that children experience on their way to understanding the concepts of money.

Before the first stage came a stage where children (aged 3–4.5 years) could identify money from other objects, but couldn't distinguish between the various coins.

They are vaguely aware that money is connected with getting possessions and their handling of the coins was mainly playful. In Stage 1, the children had the notion that money could buy items, but thought that any coin could buy anything.

The next stage (Stage 2) included recognition that some coins held more value than others, but that the exact coin was needed to purchase the exact priced item (e.g. A nickel could purchase a 5-cent item, but not an item worth less than 5¢.) They also assumed that the shopkeeper always gave change back as part of the purchasing transaction regardless of price. Each stage gave way to more sophisticated understanding.

By Stage 9, children were able to fully understand money concepts and the idea of profit. The only concept missing at all stages was a more complicated economic issue of "the middle-man." It did not make sense to children that the manufacturer would sell his goods to one person, who then sold to another, who finally sold to the shopkeeper.

Berti and Bombi (1979, 1981, 1988) conducted another major study, which built upon Strauss and Schuessler's research but elaborated it further by exploring a younger group of children (3–8 years old). Berti and Bombi's research focused on the concept of buying and selling with money and children's ideas about how money is obtained. It was through interviews along with coins and bank notes, comics and sweets, that Berti and Bombi were able to establish five stages (along with a pre-stage that was almost complete unawareness of money):

- Stage 1: Children recognized that items were bought with money, but could not distinguish between the different coins and notes (similar to Strauss' finding).

- Stage 2: Children had the ability to have a broad understanding that not every kind of money will buy all things. The children could acknowledge the difference between coins and notes and thought notes were used for higher priced items.
- Stage 3: Differed slightly in that these children used quantitative criteria to distinguish that sometimes money cannot be used if there is not enough.
- Stage 4: Equivalent to Strauss's Stage 2; one must have the exact money to purchase something.
- Stage 5: Children understood the idea that change is used to compensate for the difference between the price and the money tendered.

By focusing on younger children, Berti and Bombi (1979, 1981, 1988) were able to identify the beginning ideas of financial literacy. They interviewed the same children a year later to confirm their initial ideas on the stages of economic development and were able to witness the children progressing through the continuum. Berti and Bombi also created four categories to represent children's understanding in regards to sources of money:

- Level 1 (around age 4–5 years) children seemed to have no clue about the origin of money.
- Level 2 children did not see the connection between work and pay.
- Level 3 children thought the change received from a purchase was a source of income.
- Level 4 (around age 7–8 years) children were finally able to make the association between money and working.

Both the studies of Strauss and Schuessler and Berti and Bombi focused on the cognitive development of children and the progression through stages. The more recent studies of children's understanding of money concepts confirm that "children learn to recognize and categorize coins in phases just like their acquisition of knowledge about saving and spending, profit, and interest rates" (Friedline, 2015, p. 43). This economic knowledge and more sophisticated behavior are present as early as five or six (Otto, Schots, Westerman, & Webley, 2006; Sherraden et al., 2011; Sonuga-Barke & Webley 1993; Webley & Plaiser 1998).

Being able to reason abstractly reflects cognitive flexibility. This applies to money concepts in relation to coins, banks, and savings accounts. For example, two dimensions of coins can be represented by physical size and monetary value. This can be confusing to children. As Strauss (1952) found, that until children realize that size does not relate to value, they might have a hard time sorting coins on value. Children start to show development in this area at 3 or 4 years, but real improvement is not made until 8 years or older (Brace, Morton, & Munakata 2006). Table 1 summarizes the continuum children progress through in developing understanding of saving and banking.

Literature Review Summary

Though there is not a lot of literature currently on best practices for teaching economic skills and financial literacy in the early elementary classroom, child development obviously affects the curriculum and materials chosen. Breidekamp and Copple (1997) write that "too many schools narrow the curriculum or adopt instructional approaches that are incompatible with current knowledge about how young children learn

and develop" (p. 141). Instead of teaching mathematics through memorization, schools should be promoting active learning in meaningful context.

Table 1

Continuum for Understanding the Financial Literacy Concepts of Banking and Saving

Age (years)	Understanding of Banking	Understanding of Saving
Younger than 6	• Thinks they *lose* money when it is put into a savings account • Doesn't understand qualities of a savings account	• Can demonstrate the importance of saving • Has some sense of saving strategy • Can save for shorter-term goals
7–10	• Better understands characteristics of a savings account. • Realizes that a savings account can help reach saving goals	• Sees benefit for saving over spending • Continues to improve saving strategies • Can save for slightly longer goals
11 and older	• Understands a savings account is used to achieve short and long-term financial goals • Wants to participate in a savings account	• Uses knowledge of economics along with saving behavior • Uses sophisticated saving strategies • Can save for long-term goals

Note. Based on Friedline, T. (2015). A developmental perspective on children's economic agency. *Journal of Consumer Affairs, 49*, 39–68.

Programs that are developed to incorporate financial literacy will need to be rigorously evaluated and grounded on the theory we know is relevant to child development and financial literacy understanding. It is time to start looking at what curriculum is available and if it does indeed meet the needs of students at a young age. Appropriate content and methods should be of utmost concern when deciding on how to introduce money concepts and incorporate the financial literacy standards into the early

elementary classroom. Acknowledging children's prior knowledge, cognitive abilities, and what we know about child development, will help teachers better prepare an intended curriculum and implement an enacted curriculum that is meaningful and relevant to students' lives.

Chapter 3: Methodology

As mentioned in Chapter 1, the methodology used for this study was a mixed methods research design. The study used a two-phase exploratory sequential approach that provided me the opportunity to inspect (a) teachers' perceptions regarding students' prior experience with financial concepts and skills; (b) their perceptions of their students' cognitive readiness to develop financial concepts and skills; (c) and the teachers' own perceptions on the importance of teaching financial concepts and skills at the primary grade levels. Along with these perceptions, I investigated how teachers' perceptions influence their planning and instruction through what, when, and how financial concepts and skills are taught in kindergarten through second grade.

The qualitative phase relied heavily on the content of the interviews in order to value a variety of perspectives and gain a deeper understanding. From these perceptions, the quantitative phase consisted of a survey with the focus of identifying variables and descriptive statistics.

Prior to Phase 1, the research questions were developed and I created a preliminary interview instrument as means to narrowing my research focus and exploring current practices. I conduced two pilot interviews which provided me the opportunity to revise my questions and strengthen the validity of the data obtained from the interviews.

During Phase 1, I decided on my target location for participant selection and obtained proper consent from contributing districts. I recruited participants through email communications and was able to select seven participants from three different school buildings. Next, I conduced seven interviews with K–2 teachers to collect data regarding their perceptions on teaching financial literacy. The audio interviews were transcribed

and I reviewed the transcriptions and began to code them the initial data using Saldana method of first cycle coding. I chose to use the descriptive coding under elemental methods. I assigned labels to my data and then after review of my current literature I then initiated secondary coding. In the secondary coding cycle I began to form linkage between the data findings. This allowed for the examining of the data in a theoretical approach to the literature. Codeweaving was utilized in the analysis of the data. Through data analysis, I made decisions on what aspects of teaching financial literacy I would like to try to generalize to a larger population in Phase 2. Figure 2 is a diagram of the research design that provided the guidance for this study.

In Phase 2, I created an online survey instrument from the themes that emerged from the interviews. From these themes I developed a questionnaire that I have reviewed by content experts in education and by a methodologist for questionnaire development. Demographic data was collected at the beginning of the survey. When the survey was determined to be in final form, I emailed every K–2 public school principal in Ohio requesting consent for participation from the K–2 teachers in the building. If consent was granted, the principal forwarded the email to the appropriate teachers. The survey was sent to 1,602 principals and it was up to the principals to forward this survey to their teachers. I had 319 participants who started the survey but the final result was only 262 usable surveys. Due to the method chosen to distribute this survey there was no valid measure of response rate. I was hoping for more useable surveys but the sample size returned was appropriate for the interferential statics used to analyze the data. I collected demographic data during the study as well to better understand my participant population. I performed a statistical analysis to establish if a generalization could be made, and the

results were member checked by the original Phase 1 interview participants for validation.

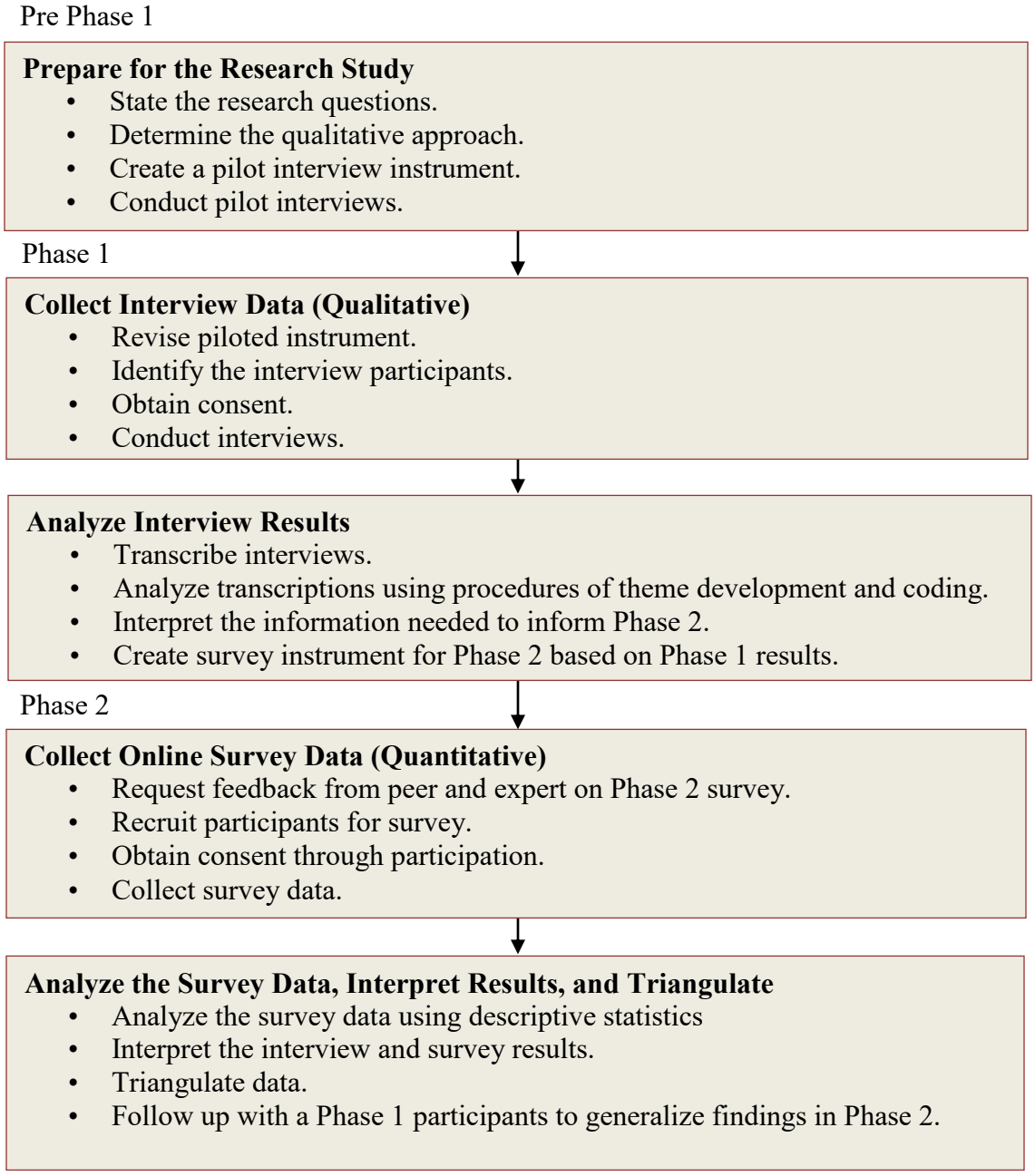

Figure 2. Research design flow chart illustrating steps for the exploratory research design progression.

The primary mixing strategy during this study was completed at the analysis step of each phase. The main purpose for using the mixed method exploratory sequential design was to "generalize qualitative findings based on a few individuals from the first phase to a larger sample gathered during the second phase" (Creswell & Plano Clark, 2011, p. 86). Three advantages to using this strategy was (a) themes were identified from the interview data to study quantitatively, (b) I had the opportunity to create and test my own data collection instrument, and (c) generalizations and suggestions were able to be applied to a larger population.

Some challenges to the mixed methods exploratory sequential design that I experienced and that were also listed by Creswell and Plano Clark (2011) included time constraints, initial IRB approval and Phase 2 amendment application, questions of bias, interpreting the qualitative data to create the quantitative tool, and validity and reliability.

I worked through these challenges by having an organized and set timeline for the study as well as taking the necessary steps to ensure that the interview instrument created was piloted and the survey instrument member checked to confirm both validity and reliability.

Philosophical Assumptions

The philosophical assumptions behind the mixed methods exploratory sequential design shifted from the first phase to the second. Phase 1 was based on constructivist principles in order "to value multiple perspectives and deeper understanding" (Creswell & Plano Clark, 2011, p. 87). I was looking for a better sense of how teachers address financial literacy in their classrooms and the perceptions that emerged. Phase 2 required more of a need to identify and measure statistical trends, which was a postpositivism

assumption. The second phase used the findings identified through the survey to verify the themes in teachers' perceptions regarding financial literacy from Phase 1, and illuminated how money concepts are taught in the classroom at the kindergarten through second grade levels.

The Researcher

My previous practice as a first grade teacher spurred my interest in exploring mathematics in the primary grades. I remember teaching basic coin recognition and value, but I did not give ample thought to teaching my students financial concepts or more difficult financial skills. This lack of instruction was due partially to my inexperience as a beginning teacher, but also the fact that financial literacy was not highlighted in my pre-service education or emphasized in the content standards of that time. This was the early 2000s and now I am interested in how, if any, advancements have been made to include financial literacy in the K–2 curricula.

Prior to the research study I had a belief in the importance of teaching financial literacy to primary students. From my previous experiences as a teacher and mother, and studies on child development, children at this age have an interest and fascination with money, so why not use this curiosity to our advantage. Though my students did not always understand the more difficult concepts of finance, some were well-versed in financial vocabulary, such as *free*, *expensive*, and *allowance*. These experiences, along with my own personal interest in better educating people on financial concepts and skills, made me want to explore just what, when, and how financial literacy is incorporated into the primary classroom.

Population and Methods of Sampling

The population for this study included kindergarten, first, and second grade teachers throughout Ohio. Ohio is a Midwestern U.S. state with a population of roughly 11.6 million. According to the Ohio Department of Education (2016) *Facts and Figures*, in 2014–2015, there were 3,586 public schools within 609 districts in Ohio. The typology of these districts and of the sample population for Phase 2 can be found in Appendix A. To preserve confidentiality, the participants of the study, their schools, and their districts are not identified. Interview participants have also been given pseudonyms, such as Anna, Bria, etc. to ensure they are unrecognizable. All participants selected for this study were required to meet the following criteria:

1. The participant must currently be teaching kindergarten, first, or second grade.
2. The participant must teach in a school located in Ohio.
3. The participant must consent to participate in the study.

In Phase 1, a purposeful sampling strategy was used. Creswell and Plano Clark (2011) define a purposeful sampling as a process where "researchers intentionally select (or recruit) participants who have experienced the central phenomenon or the key concept being explored in the study" (p. 173). The sample was homogeneous in nature, focusing on K–2 teachers conveniently located close to my residence and university.

Before the official data collection took place, two pilot interviews (1 kindergarten and 1 first grade teacher) took place to test the instrument's reliability. I purposely chose these contributors for accessibility and contacted them directly. After revisions were made to the instrument, participants were then recruited through an email sent to three specific elementary school principals requesting consent and involvement of their K–2

teachers (Appendix B). The email was forwarded by the school administrator and volunteers contacted me directly to participate. From this recruitment, seven official interviews were conducted (2 kindergarten, 3 first grade, and 2 second grade) to provide an in-depth view into how financial literacy plays a role in the primary elementary grades. I decided that including seven participants was sufficient for Phase 1 due to their diverse teaching experience, representation of all three grade levels, and sampling from three different buildings. More information regarding the demographics of the Phase 1 participants can be found in Chapter 4.

In Phase 2, a purposeful sampling strategy was again used to allow for a broader perspective and representation of a segment of the population of K–2 teachers in Ohio. I accessed the database of administrators' email addresses on the Ohio Department of Education website and downloaded them into an Excel spreadsheet. I then sorted this data to include only the administrators that served in buildings containing kindergarten, first, or second grade grade-levels. I then verified that the email addresses were current and accurate by visiting each school buildings' official website. Once my database was complete, I was able to contact each administrator through email to gain consent and encourage participation of their K–2 teachers (Appendix C). Individuals were then asked to volunteer to take the survey based on availability and that they met the criteria in place for participants. Two additional reminders were sent to principles throughout the active survey to encourage teachers to contribute. During this recruitment period, 262 participants agreed to complete the survey and did so in its entirety. Unfortunately, one of the weeks of sampling occurred during spring break for many of the schools. This might have had an effect on the sample size and number of completed responses.

Both phases had an opportunistic sampling strategy built into the data collection process so that if I did not gain enough data through volunteers, more participants were to be recruited and added to the study. Due to follow-up email reminders and support from many Ohio administrators, I did not have to reissue the survey due to lack of data.

Gaining Permission

I gained permission to collect data through Ohio University's Institutional Review Board (IRB) on two separate occasions. The first IRB approval applied to the pilot interviews and the second to the bulk of the study. As a part of the IRB process, site permission needed to be obtained from each school district of which I was planning to sample. Once permission was gained from the IRB and district administrators, individual consent was required from each participant before the data was collected and recorded. This was obtained through a signed consent form (Appendix D) which was, and will continue to be, kept on file for the duration of the study. The participant may choose at any time to withdraw themselves from the study at which time all data related to that participant will be immediately deleted.

The initial IRB application could only state with certainty Phase 1 of the data collection process. Tentative details were given for Phase 2, but since the instrument had not yet been developed, an addendum needed to be submitted for approval. Once the amendment was approved, the emails were sent, and consent was obtained through the administrators' agreement to participate by forwarding the email to K–2 teachers.

Collecting Data

In this mixed methods exploratory design, the sampling occurred in two phases. According to Creswell and Plano Clark (2011), "The primary data collection decisions

for the exploratory design are the determination of samples for each phase, the decisions about results to use from the first phase, and, …, how to design a rigorous instrument with good psychometric properties" (p. 187). In this study, Phase 1 data was collected qualitatively through open-ended question interviews. The interview instrument was first piloted on one kindergarten and one first grade teacher, whose results would not be included in the data, to check for reliability and make revisions where needed. Examples of the amendments are found in Chapter 4 and the original pilot instrument is located in Appendix E. The actual implemented research instrument (Appendix F) was then performed as means for exploring the overall goal of the research questions. Each interview was then transcribed and coded according to emergent themes and categories.

Phase 2 consisted of data collected through a survey instrument created from the findings of Phase 1 (Appendix G). Different participants were used for this phase than those from Phase 1. The interview data was analyzed to determine themes and codes which served as the guide for designing the survey instrument. Rigorous procedures of scale development were put into place to ensure validation. The list of procedures that were employed in this study were written by Creswell and Plano Clark (2011) as adapted from DeVellis (1991). They are as follows:

1. Determine what you want to measure, and ground yourself in theory and in the constructs to be addressed (as well as in the qualitative findings).
2. Generate an item pool, using short items, an appropriate reading level, and questions that ask a single question (based on participant language when possible).

3. Determine the scale of measurement for the items and the physical construction of the instrument.
4. Have the item pool reviewed by experts.
5. Consider the inclusion of validated items from other scales or instruments.
6. Administer the instrument to a sample for validation.
7. Evaluate the items (e.g., item-scale correlations, item variance, reliability).
8. Optimize scale length based on item performance and reliability checks (p. 189).

Data Analysis and Interpretation

This study progressed through a set of data analysis and interpretation steps as outlined by Creswell and Plano Clark (2011). For the data analysis process, I engaged in "preparing the data for analysis, exploring the data, analyzing the data, representing the analysis, interpreting the analysis, and validating the data and interpretation" (p. 204).

In Phase 1 of the exploratory mixed method research design, I collected the qualitative data through interviews, analyzed the findings, and then used the results to aid in the creation of the follow-up quantitative Phase 2 data collection instrument. This method for collection required three analyses. The first analysis occurred after the initial interview data collection. Another analysis was completed after the follow-up quantitative data collection phase. Finally, the last analysis occurred as I used the results from both phases to interpret the overall findings by evaluating how the survey data helped to generalize the initial interview data. Key decisions in data analysis were made when relating the qualitative outcomes to the quantitative instrument. I also considered "the psychometric quality of the instrument, how to analyze data from it, and how the

quantitative results build or expand on the initial findings" (Creswell & Plano Clark, 2011, p. 221).

The findings for each phase will be discussed in Chapter 5 to verify whether the quantitative data confirmed the qualitative results and whether generalizations could be determined by assessing how the data answered the five research questions. Analysis of the data included descriptive statistics to determine the importance of the various themes and inferential statistics to test the relationship among the variables identified from the interview findings. Meta-inferences were made regarding whether the Phase 2 data aided in generalizing the findings from Phase 1, thus answering the research questions.

Validity

Validity in this study focused on all three stages of (a) data collection, (b) data analysis, and (c) interpretation. This study also examined validity during the association of data between the two phases. Creswell and Plano Clark (2011) define validation in mixed methods research as "employing strategies that address potential issues in data collection, data analysis, and the interpretations that might compromise the merging or connecting of the quantitative and qualitative strands of the study and the conclusions drawn from the combination" (p. 239).

During the data collection of an exploratory mixed methods research study, a potential threat to validity includes the selection of inappropriate participants for the study. A strategy I used for minimizing this threat was to select different individuals for the quantitative phase from those of the qualitative. Another potential threat regarding participants is to use an inappropriate sample size. I reduced threat by using only 7 participants for Phase 1 and a larger, more comprehensive sample size for Phase 2 (n =

262). A third threat could be choosing participants for follow-up with regard to the research question who could not help explain significant results. By using the same purposeful sampling of individuals from Phase 1 as member checks for the Phase 2 findings, any uncertainties I had regarding data relating to the research questions could be clarified by the participants. A final data collection issue could have been designing an instrument that did not have sound validity and reliability properties. Through the use of rigorous procedures such as having the instrument reviewed by an expert, member checking, and an external review, the survey was validated (Creswell & Plano Clark, 2011).

Three potential issues for validity in data analysis could have included (a) choosing weak qualitative results to analyze quantitatively, (b) choosing weak quantitative findings for the qualitative follow-up, and (c) including inappropriate qualitative data without a clear intent for use (Creswell & Plano Clark, 2011). These validity threats were minimized by identifying the major themes as the basis for the quantitative survey, choosing correct results that needed further investigation for follow-up, and specifically distinguishing the purpose for each form of the qualitative data.

The final stage of validation is in regards to interpretation issues. A potential threat would be for me to compare the two sets of data when in reality they are meant to be built upon. By clarifying the data sets separately before looking at how they fostered each other, the results were applied to answer the research question per phase and then as a cohesive study. Another threat would occur if the two data sets were interpreted in reverse order. I ensured that the data was interpreted as the designed intended, thus the threat was minimal. A third threat would have taken place if I did not take full advantage

of the interview findings both during Phase 1 and after Phase 2. By recognizing the benefits at both stages, I was able to confirm the reason for including the qualitative data from the beginning. A final potential validity threat for this study would have happened if the stages of this multiphase analysis were not related. This is not to be confused with compared, but rather I had to consider how Phase 1 was connected to Phase 2 and how Phase 2 helped to generalize Phase 1. This analysis transpired during the mixing strategy (Creswell & Plano Clark, 2011).

Chapter 4: Results

The goal of this study was to gain information on the level of value that teachers give to instructing financial literacy in kindergarten through second grade, as well as what concepts and skills are being taught in the classroom and methods used for implementation. Qualitative interviews (Phase 1) illuminated important themes that emerged in teachers' perceptions concerning students' prior experience, knowledge, and skills regarding financial literacy, their perception of students' cognitive readiness to address such skills, and their belief on the importance of including the financial content into the curriculum. From these insights, the Quantitative (Phase 2) section was the development of the survey instrument to examine whether these perceptions were shared throughout Ohio and to gain a boarder perspective on how teachers' perceptions shaped the intended and enacted curriculum being taught in the classroom.

Phase 1: Interviews

The interview phase began with a pilot study that explored the three areas of teachers' perceptions that were of interest. The first area, teachers' perception of students' prior experience, knowledge, and skills regarding financial literacy, was an examination of the amount of financial concepts and skills teachers' believed their students entered the classroom already possessing. These questions assessed not only the amount, but where the teachers believed this prior knowledge extended from, and what most influenced the students' previous learning. The second area of interest in the pilot study was in teachers' perception of students' cognitive readiness to develop knowledge and skills regarding financial literacy. I wanted to know if teachers believed that their students had the cognitive ability to understand such concepts, and if so, to what extent.

The third area of consideration was on teachers' perception of the importance of teaching financial literacy in kindergarten through second grade. I believe that teachers are central to the enacted curriculum and what, when, and how material is introduced, so I wanted to know to what extent teachers even valued the idea of teaching money concepts and skills, and which of these were incorporated into the curriculum at their grade level.

Pilot study. From these three areas, a preliminary interview instrument was created that would first be piloted on two teachers who would not be included in the main study (Appendix E). The purpose of the pilot protocol was to ask a variety of questions pertaining to financial literacy to gain insight on teachers' beliefs on the value of teaching money concepts and skills, what specific concepts and skills they were incorporating into their classrooms, and the methods they used for doing so. By piloting the instrument first, I was able to narrow my focus and revise accordingly to increase the reliability of the instrument.

The first pilot participant was a first grade teacher in a suburban school district and the second was a kindergarten teacher in a rural area school district. From these initial interviews, I was able to modify my instrument to include questions that were generated from conversation and eliminate questions that seemed to lack relevance to the study. Examples of these revisions are found in Table 2.

From the pilot, I could see that I needed to shorten and tighten my instrument. I also needed to avoid questions that would result in yes or no answers, or questions that did not allow for elaboration. The experience of the pilot resulted in the creation of my interview instrument that was implemented in Phase 1 of my research study (Appendix F).

Table 2

Revisions Made to Interview Instrument in Phase 1

Original Item	Revised Item	Reason for Change
How can we improve our students' financial literacy?	Do you have any suggestions of how K–2 teachers could better prepare their students in financial literacy?	The original question was too broad and could scope the entire K–12 curricula. By adding the K–2 constraint and specifically mentioning the teacher's role, participants can specify methods for preparation based on the average student's needs.
Do you believe state policy makers see financial literacy as a priority in the grade that you teach? Do you believe the public sees financial literacy as a priority in the grade that you teach? Do you believe the administration in your building sees financial literacy as a priority in the grade that you teach?	Is financial literacy important to you? Why or why not? If so, how does it drive your instruction?	I decided to eliminate the questions related to state policy makers, the public, and the administration. The teachers' answers would be speculation and I was more interested in their own beliefs and perceptions.
In your opinion, do students have experiences outside of the classroom to support their learning of financial literacy?	What previous knowledge do your students have regarding financial concepts? a. How often do your students manipulate money or have exposure to it? b. What options are available in your school for students to pay for lunch?	The question was changed to give the teachers more direction on the amount of previous knowledge students have coming into the grade level, and where they obtain this previous knowledge. I also wanted to know if their experience included the actual handling of bills and coins or if lunch one was strictly managed electronically.

Participant sample. Next, face-to-face interviews were conducted with seven practicing teachers who were purposely chosen for this study. Two were kindergarten

teachers, three were first grade teachers, and two were second grade teachers. All seven were chosen as a convenience sample from two different districts, one close to my home, the other close to my university. Table 3 gives an overview of the participants' current grade level that they are teaching as well as the number of years' experience teaching in K– Grade 12. Notice that all interviewees had at least 10 years of teaching experience.

Table 3

Demographic Information About Interview Participants During the Qualitative Phase of the Mixed Method Study

Teacher	Grade Level	Years Taught
Anna	K	12
Bria	K	35
Cara	1	10
Dena	1	19
Emma	1	32
Faya	2	15
Gina	2	19

Each participant signed a consent form (Appendix D) explaining the study and acknowledging that the interview would be kept confidential. All of the interviews were transcribed and examined for consistencies. From these interviews, the data was analyzed and themes began to emerge which were common to all three grade levels. From these themes, codes were determined that would assist in the development of the survey instrument for Phase 2 of the study. The following is a list of the themes that surfaced as a result of the interviews:

1. Professional development for teaching financial literacy

2. Students' prior knowledge of financial literacy concepts
3. Student cognitive readiness to understand financial literacy
4. Teachers' beliefs regarding the value of teaching financial literacy
5. What financial literacy content is taught
6. When financial literacy content is taught
7. How financial literacy content is taught
8. Manipulatives and tools used for teaching financial literacy
9. Technology used for teaching financial literacy
10. Assessment of financial literacy content and skills
11. Challenges for Teaching Financial Literacy

Themes. As listed above, the interview data resulted in 11 dominate themes. The following sections elaborate on these themes.

Professional development for teaching financial literacy. Professional development for teaching financial literacy emerged from the fact that the majority of the teachers interviewed did not have much, or any, prior education in how to instruct on financial literacy, aside from the basic skills of coin identification and counting collections of coins. The three codes relating to teacher professional development included: college courses taken in economics or finance, to what extent the teachers were exposed to financial literacy content related to K–12 education in their own academic experience or pre-service course work, and in-service professional development received on teaching financial literacy after they had started their teaching career.

None of the seven teachers interviewed remembered completing any undergraduate course work pertaining to economics. Emma, one of the first grade teachers, explained,

> I don't remember being formally taught money, but I know I was taught money. It may not have been in the school, it may have been at home when I was counting jars of money, because we saved coins. That type of thing.

Another first grade teacher, Dena, stated, "I do not remember that. I remember taking math classes that I just didn't even understand, that I had to have." Undergraduate mathematics course requirements were not an area specifically examined in this research, but one that would be worthy of a follow-up for future studies.

Many could not remember ever receiving formal instruction on the methods for teaching money concepts and skills. Bria was quoted saying, "I guess the only instruction I've ever had in financial literacy is just how to teach kids to identify coins and know their value." This practice emerged from her student teaching opportunity. Gina agreed stating that her exposure occurred in "…more like our field experience of learning. I think I learned that way about the actual teaching, but the financial teaching, like a professor telling us, no."

Only one of the seven teachers interviewed remembered taking a college course in economics or finance after beginning her teaching career. Anna explained that she needed college course work to renew her teaching license and came across affordable courses at a local university that were aimed at teaching finance in the classroom. She stated that it was "…totally random that I happened to take three economics classes for kindergarten teaching." She explained that the course was for K–12 teachers, but the majority in

attendance were high school teachers. She did, however, take advantage of the experience and when planning her projects for class, still focused on the kindergarten level. She attributed the amount of financial literacy content included in her classroom currently, to the ideas and methods she took away from these courses. Once again, teacher preparation opportunities in both pre- and in-service professional development would make for an interesting area of research. One could examine whether there is a relationship between the amount of economics or finance courses taken to the value of teaching financial literacy in K–Grade 12.

Students' prior knowledge of financial literacy concepts. All seven participants claimed that their students came to them with some level of prior knowledge. The codes from this developing theme included: general society, home environment, and prior schooling. Bria stated that "I can tell who has counted money, just by the way they handle it." Anna agrees that the children have varying experience. When asked about her perception of her kindergartners' prior knowledge with financial concepts and skills, she said,

> I would say for the most part; they would probably have very little. There's always a few kids who understand money and they know all of the coins…but I would say it's a small portion of the kids that come in.

When asked where the teachers perceived their students' prior knowledge was obtained, many believed that the home environment plays a major role. Dena specified that, "Probably I would say home or society…Yeah, I would have to say at home, based on allowance, tooth fairy, that kind of thing." Emma believed that the level of understanding "depends on if their parents have done anything with money with them at

home." Gina concurred saying that "Some parents…show them how to earn money and pay for things."

Along with the home environment, teachers attribute previous experience to preceding grades. Faya, a second grade teacher, emphasized the importance of building upon the prior knowledge that the students gained from earlier schooling. She stated that "I'm seeing them come in with background knowledge of what the coins are and how much each coin is worth, and our job is to help them. Just to reinforce that, and help them master it as second graders." She also acknowledged that this can put pressure on preceding grade levels.

> It might be hard for them, because the kids might not even know yet, the value of money or how to count that. They've got to understand those concepts before we can take them a little bit further with it and actually be able to purchase things and save.

This Piagetian thinking is exactly why it is important for concepts to scaffold and students be given multiple opportunities to explore financial content, rather than just once every few years.

Student cognitive readiness to understand financial literacy. Children between the ages of 6 and 8 are rapidly changing cognitively. As they begin to develop the ability to reason more abstractly, teachers start to see differences in their students' ability to understand more difficult concepts and skills (Bredekamp & Copple, 1997). For this reason, it can be challenging to pinpoint exactly what a child in kindergarten through second grade should know regarding financial literacy. Teachers discussed their perception of the level of understanding students have regarding financial literacy and

from this theme transpired the codes: no understanding, basic understanding, and more understanding than expected.

When reviewing the Jump$tart standards, Bria commented that "I just think some of the stuff is just beyond what they can do." Cara agreed stating that students at this level are "very, very much concrete. They need to see it. They need to hold it for better understanding." Emma also used the term "concrete." She claimed that developmentally "they're very concrete and if you look at a concrete knowledge of money, that would be the coins." When asked about students' understanding of the value of coins she explained, "abstractly, I think it's very difficult for them unless they have a lot of outside experience in their family." Once again the teacher was making a connection between the importance of building on prior knowledge and a child's cognitive development.

Teachers' beliefs regarding the value of teaching financial literacy. All seven of the teachers interviewed felt that it was important to incorporate financial literacy into their curriculum regardless of the grade level or lack of state standards. Rather than coding this theme as value versus no value, I chose to code this theme based on how the teachers expressed their values or when their values were reflected in their lessons. Bria reflected on her own personal experience and how it has influenced her passion for incorporating money concepts and skills into her instruction. "I think it's extremely important because I think [credit card companies] really prey on our kids when they go away [to college]." She went on to say that,

> I do think this is something that we definitely need to step up through the years and build on as we go, because especially as we move away from actual bills and

> coins to just virtual money, these kids have to know there isn't a limitless supply. They have to know how to manage it.

Cara also felt there were some gaps to understanding with our teenagers in the American culture. She stated that "There is no concept of how to make change. I think in today's society, cash and money; they're not really exposed to all that much. It's the magic card." Credit and debit concepts can be very abstract for a child's mind, but there is growing concern that even as young adults, our students are still not grasping the concept. Dena mentioned that "Gosh, I wish that [credit] would be something that would be taught really early on. I think of my kids, or even myself." Her own children are teenagers now and she is starting to witness firsthand the importance of teaching these life skills. "Yes, I think it's very important. I think the younger kids learn things, especially maybe more about the saving and that kind of thing…it's kind of more of a pay-off."

Cara stated that she valued her district for having standards in place for money concepts and skills even if they were not in the Common Core. Bria, who also teaches in the same district as Cara affirmed this statement. She elaborated that,

> We decided to keep that in, because we thought [teaching financial literacy] was important, because it is such a hard concept. To not do it at all in kindergarten, and then all of the sudden do it later, it's just crazy because they need to at least have been exposed to it. We kept it as a standard because we thought it was important.

Teaching beyond the Common Core seems to be a usual practice for many teachers. Emma, who is in a different district from the others said, "You look at those

patterns, things that aren't in the Common Core that we still do, because we think it's important. I do money with my calendar." Sometimes the teachers did not even realize how much they are teaching financial literacy concepts and skills until they started reflecting. Gina is an example of this newfound recognition. She stated that, "Yeah, I think we teach it a lot more than we give ourselves credit. Talking about it now, I'm thinking, 'Yes, I do this, this, and this,' but yeah."

What financial literacy content is taught. Now that I had confirmation in the teachers' beliefs on the importance of teaching financial literacy in K–2, I wanted to know exactly what concepts and skills were covered. Codes that surfaced in this theme included financial skills, such as coin identification, sorting by attribute, making change, exchanging coins and bills for the same value, and counting; financial concepts, such as saving, loans, risk, interest, inflation, and debt; and where this content was drawn from, such as the Jump$tart standards, Common Core standards, and state standards.

I began with questions relating to standards and how these guidelines shaped the curriculum. Of the seven teachers interviewed, only one teacher knew that the Jump$tart standards even existed. She was the teacher that had taken the course work related to teaching economics in K–12 classrooms. Many of the teachers showed embarrassment or shame at the fact they were unaware of such standards. Dena made the point that "If these are national, you would think the state standards would adopt those and be part of the state standards." Bria had similar feelings regarding the publicity of the Jump$tart standards. She said, "In fact I didn't know we had standards until you contacted me and then I got all excited to adopt the standards." The teachers displayed interest in the

content of the standards, and I was able to show them the grade bands and how the concepts and skills were distributed.

The teachers were acutely aware of the state standards. When asked what was included, coin recognition and stating the value of the coins were mentioned. Anna commented that "We do coins, which we talk about daily. We really just try to focus on what they are and how much they are worth." Bria mentioned that her kindergartners "learn the difference between a want and a need." Wants and needs were common to every interview participant. The teachers identified this concept as being a social studies standard, but made the connection to financial literacy.

Cara referred to the social studies curriculum stating, "We have a new Social Studies unit and there are some things in there. That brings up some conversations in here a little bit about careers and things." She also discussed symbols and how she was able to relate the coins to presidents, what is on the faces of the coin, and how much the coin is worth. She did go on to clarify that though she teaches this, "It's not a state standard." Dena also saw a connection to Social Studies. She stated that "Actually in our social studies curriculum, it talks about coins and dollar bills and why you need money. When you go to work you make money, and when you make money you need money to buy things you want." Faya agreed that "We do talk in social studies about saving money, savings accounts, and about how money is a resource that can go away. We also talk about how you need to budget your money." From the interviews it seemed that the teachers were expecting financial literacy to be in the mathematics area, but soon started to consider it in other parts of the curriculum as well.

This led me to follow up with a question on where they thought financial literacy should be categorized. The consensus seemed to be that it is cross-curricular. Dena stated that she thinks "It fits with reading, too. Then they write about it, too. On the hundredth day, we'll give them a pretend one-hundred-dollar bill [and ask the students to write], 'What would you do with a hundred dollars?'" The consistent element was the importance of making connections regardless of the subject area. Faya stated that it is essential to "give examples. We talk and relate it to [the students]." Emma claimed that,

> It's got to be cross-categorical. It has to be, because in social studies, you talk about goods and services. You can't talk about goods and services without talking about purchasing or trading, or something. When you talk about purchasing and trading, you're talking about money. In a social studies aspect, it's there. In a mathematical, adding coins, knowing the value, adding all of that. Literacy, how to write the words, there you go…I don't think it can be a separate entity. I think it has to be within others.

When financial literacy content is taught. After the participants internalized that they did, in fact, cover financial literacy concepts and skills in their classroom, we discussed when such content was incorporated. Codes that appeared in this theme included daily, periodically throughout the year, and as a separate unit. Once again, there was a common component. All seven of the teachers revealed that most of their instruction on financial skills came daily during calendar time or as behavior management, and that they emphasized money for two weeks around President's Day. Gina stated that "I would say we do it throughout the whole year." She proceeded to

explain how students can earn coins for good behavior. By incorporating it into her classroom management she said, “We’re constantly talking about it.”

Bria also incorporates financial literacy instruction within a reward system. She said the purpose is “to teach them that in the real world, when you do your job well, you get paid for it. If you go above and beyond, you get a bonus.” She also mentioned that during calendar time they recite rhymes to learn the coins. Anna mentioned rhymes as well and that they do “a chant and a cheer to try to memorize what it’s worth.”

When asked when financial literacy is or should be taught, Emma declared, “They have to somehow, whoever is building a program, connect it to other things that you do within a first grade curriculum already.” She spoke of how she uses money to help teach skip counting, addition, and subtraction. She also stated that “incorporating money into that structure helped them, and I’ve seen kids be able to do that at a first grade level. I think they just have to connect.”

It seemed that the participants believed that financial literacy is an idea that can be incorporated into any teachable moment. Faya concurred that “It generates conversations just like in real life.” Emma declared that “it would be good if it was within…somehow find a way to weave it so the children really don’t know they’re learning it.” She saw it as a life skill that could be taught in everyday discussions that were occurring constantly within the classroom.

How financial literacy content is taught. As mentioned before, the participants used calendar time, rhymes, and behavior systems to teach the coin names and values. Other methods remarked on included centers, skip counting, games, school stores, and worksheets. These became the codes for how financial literacy content is taught. Bria did

admit that her poems "help [the students] remember but are not really connected to financial literacy." She was beginning to understand that financial literacy was more than just memorizing coins.

Anna was also seeing the connection, but admitted that this had not always been the case. She stated that,

> Even the counting by 5s and 10s, I really just did what I was supposed to be teaching. I didn't think about its relevance. Now, I try to make that connection, 'Why are you learning to skip count? What's the point of that?' The point is that money counts by 5s and counts by 10s. It makes it easier. I feel like over time that's something that I have learned. It's not something that I came in just doing or knowing.

Learning how to model mathematics with money or modeling financial literacy with mathematics is something that is not usually emphasized in current pre-service courses, but worth consideration in future program construction.

Skip counting was discussed in all three grade levels. The kindergarten teachers talked about counting by 1s and 10s, the first grade teachers discussed 1s, 5s, and 10s, and the second grade teachers mentioned 1s, 5s, 10s, and 25s (quarters). A variety of strategies for teaching counting in general emerged in these conversations. Dena talked about "tapping the coin, or drawing legs on a coin" to keep track when the students are counting.

Along with counting came finding the value of a collection of coins. This can be difficult if the students only have a worksheet with pictures. If the coins are prearranged, Gina has the students "put a line when it changes to a different coin, so they know, 'I

need to stop. It's a different coin. This is worth five cents, not the quarter.'" She went on to explain that "For some kids, to take that mixed collection and try to do all that in their head is too much." She has them redraw the coins when there is no order.

> Let's take the biggest one. Start down here. Draw the circle. Put a 'Q' on it. That's a quarter. Go through and cross them out as you go, and make your row. They still need that. For some of them, they need that picture visual.

Dena also teaches her students to rearrange the coins if needed. She described how she tells them "you group it by the biggest coins first, line them up, and then you can tap them or draw the lines and mark them off." She admits this can still be difficult for the students, so as a teaching strategy she tries "to group the kids out and do just various centers with kids."

Cara uses groups as well to help instruct on money concepts and skills. She gave the example that,

> During that unit, I differentiate my groups so that I can work with the kids that don't even know what the coins are. We work on identification. My next group, we work on the value of it. I have little things where if they have a quarter, then they can pay for this. Kind of like a game. Then my higher group is more counting collections. That's a little bit more challenging. Adding those different coins up to equal this amount, so they can make a purchase. It's all like little store things.

Not every teacher has a full-blown school store, but all have used this concept in one way or another to instruct on financial literacy. Bria discussed how she uses this format in her classroom as well. "Once a month we have a kindergarten store and they

can purchase items at the store with their dollar. From the very first store that I have, I know who's a spender and who's a saver." She mentioned that with the school store, she even addresses concepts like how peer pressure and advertising can affect spending decisions. She has had to tell the students, "Wait a minute. Everybody gets to spend their money the way they want to."

Incorporating real life experiences was consistent across all seven participants. Faya explained how her students,

> …earn pennies in the classroom. They can lose pennies in the classroom. It's for positive behaviors and also a consequence sometimes. At the end of the week on Friday, I open the bank. They come to the bank, and they can trade in their 10 pennies for a dime. They can only shop at the store with the dimes to show them the process of trading in and changing that into a higher amount, the higher value coin, and then they purchase things from the store or they can hold on to them.

Through class stores, students are being exposed to the concepts of spending and saving, as well as the responsibility for handling and stowing money in a secure manner.

Manipulatives and tools used for teaching financial literacy. I was interested in the types of manipulatives and tools that teachers were using to instruct on money concepts and skills. Codes emerging from this theme included, "play" money, "real" money, coin rubber stamps and ink, children's literature, worksheets, and technology.

Every participant claimed to have "play" money which they made available to the students. It was their perception that students understood the money concepts and skills better with concrete manipulatives. Some teachers have parents send in "real" money for the children to practice counting skills. Bria said that "I have parents send in 4 quarters,

10 dimes, 20 nickels, and 25 pennies. Then [the students] each have a little bag of real money and we can do everything we need with that."

Gina agreed that it is important for students to manipulate real money. She stated that "I think with the texture and seeing, for a couple of coins, that's just a little bit easier." Anna also used real money,

> …because I feel like that's more of a connection for the kids, and the money looks different. They got new nickels, and it's hard so we try to look at how it feels and what it looks like, and how you know that one's thick and one's thin, and one's tiny.

Technology used for teaching financial literacy. Technology was mentioned several times as a tool to aid in the instruction of financial literacy. Types of technology that became codes for this theme included; iPad, computer, SMART board, and videos. All of the teachers stated that they used a SMART board and slides that accompanied the teaching of money concepts and skills. Emma explained that,

> …on the SMART board, it is a slide that a child does, whoever that helper is… they go through six different slides with different things that they have to change. One of them is money, and counting up, because we are counting the days. You add another penny, and make exchanges.

Many of the participants also discussed the computer program IXL. Cara stated that "We have IXL Math, because our series has its own link. Its own component to it. The first grade teachers love the program IXL Math. It is above and beyond the Common Core." She also referenced that,

> …in there, there is a section on money. Then I can even kind of tweak that and log a student in under kindergarten if we need to go back. They can do the money section under there. Then those that have completed first grade that need a little more challenge, then we can go to second grade.

Faya mentioned this feature as well stating that "it will tailor lessons specifically to what they need to work on."

Technology can be wonderful but also comes with some challenges. Anna talked about how she used to frequently use iPads and financial literacy applications, but that the apps continued to update and would not work properly on the older devices. Teachers also mentioned difficulties when other pieces of technology would breakdown and how these malfunctions could really throw off their lessons.

Assessment of financial literacy content and skills. The teachers mentioned using IXL to help gauge their students' skills when it came to money, as well as standardized tests, performance assessment, and verbal questioning. These were the codes used to determine what type, and to what extent, money concepts and skills were assessed in the participants' classrooms. The second grade teachers were the only grade level with state specific standards addressing money skills, but all participants did some sort of assessment, even if it was not formal.

Performance assessment seemed to be the method preferred most by the participants. The teachers frequently mentioned working with the students one-on-one to have students identify coins, their value, and count a small collection. Bria also assesses her students during interactions at the school store. She claimed that "I assess [the

students'] math skills when we do store. I keep track of who can subtract from their amount of money and know how much they have left."

A surprising finding was that Dena mentioned that there is an item on the state screener for first grade that includes counting a small collection of coins. Dena explained that,

> We get a state screener. This makes no sense at all. We give a state screener at the end of the year, and on there is counting. I think it's a quarter and two nickels. Yet, the state standards we don't have.

After investigating this further I have come to the conclusion that an outdated version (Ohio's Assessment System's 2004 Short Screener) was being used instead of the current Ohio Diagnostic Assessments Grade 1 Mathematics screener, which does not include counting a collection of coins. Regardless, the feeling seemed to be that students were over assessed formally. Another first grade teacher, Emma, displayed a strong belief that "There should be less things that you have to assess formally and really focus on teaching and making connections."

Challenges for teaching financial literacy. Technology can be a challenge in aiding instruction, and formal testing can be a challenge in assessing, but I wanted to also examine what could be a challenge to teaching financial literacy. Codes that surfaced as challenges included; standards that are unclear or do not exist, variation of images on coins, not enough time, students' cognitive abilities to understand financial concepts, and English not being a student's first language.

Emma stressed that,

> The fact that we don't really have to [teach money concepts and skills] in first grade. That's a big challenge. Anything we do is above and beyond what the federal department says, but in the same regard it's almost like you can't not teach it because there's the connections. As you know with math, it's all about connecting and patters. If you can show them another way of making those connections and patters, then why wouldn't you teach it?

Variation in the images on the coins poses an issue for students to correctly identify them. Gina expressed this concern with "especially the nickel coin. It looks different than what we're teaching. The face or the picture is different than from probably maybe 3, 5 years ago." Any worksheet that had been published previously to these changes can be confusing for the children and another reason why teachers preferred using plastic or "real" coins.

Though the buildings that the participants were sampled from were not overly diverse, teachers in both settings mentioned English as a second language being a challenge to teaching the American monetary system. Teachers have addressed some of issues by showing students currency from different countries. They explain that the concept of spending and saving is similar, but the units used for purchasing goods can look different and have diverse values.

Developing survey questions from the interview data. From these themes and the supporting literature, a survey instrument was created to be distributed throughout Ohio to K–2 public school teachers in Phase 2 of the research study. The instrument was designed to include the data analysis from Phase 1 written in a multiple choice and short answer format. The survey contained 37 questions, with the last three questions being

optional (for complete survey see Appendix G). The survey was centered on the five research questions with the aim of gaining more knowledge on teachers' perceptions regarding financial literacy. The multiple choice response scale varied depending on the type of questions, but remained consistent in terms of a Likert format. The instrument was member checked for accuracy as well as content clarity.

Phase 2: Online Survey

The goal of Phase 2 was to determine to what extent the themes and results that emerged from Phase 1 were accurate and could be generalized throughout the state of Ohio. Another aspect of the survey was to gather more data on diverse school systems in order to answer the research questions in a more comprehensive manner.

The survey was created through Qualtrics and distributed by email to every public school K–2 principal throughout the state of Ohio, to be forwarded, as consent for participation, to the appropriate teachers in the building. It was stated in the email that if the teacher agreed to open the survey and complete it, then they were giving consent for participation. The survey remained available for one month and two reminders for completion emails were sent to the principals throughout the timeframe. An incentive of a drawing for a $100, $50, and $25 gift card was included to heighten the response rate. Once the surveys were completed, I sorted the data by those that chose to be entered into the drawing and then by date as outlined in the recruitment letter. I then assigned each participant a number and used a number generator to "choose" the winners. An outside observer was present to ensure the drawing was conducted properly.

Of the 319 participants who began the survey, 262 completed it in its entirety. Participants were asked the current grade level that they were teaching, and if multi-age

to please select all that apply. Because some of the teachers were multi-level (taught in several grade level) and thus in order to ensure the integrity of the data these teachers were assigned their own category. Table 4 illustrates the breakdown of the number of teachers per grade level and then the number of teachers per grade level rounded to the nearest hundredth when correctly divided to avoid overlapping.

The participants were also asked for other demographics, such as previous grade level teaching experience which ranged from preschool to high school, as well as identified gender, and the school district's typology as determined by the Ohio Department of Education in 2013. This information can be found in Appendix H.

Table 4

Distribution of the 262 Participants by Grade Level

Grade Level	Number of Teachers
K	80
1	85
2	74
K, 1	3
K, 2	1
1, 2	6
K, 1, 2	13
Total	262

Results relating to research questions.

Research Question 1: What are teachers' perceptions of students' prior experience, knowledge, and skills regarding financial literacy? Two items on the survey were related to the first research question. Item number 10 was based on a Likert scale

and I decided to truncate my choices to four in order to eliminate the neutral option.

Table 5 displays the results of this survey item broken down by grade level.

Table 5

Teachers' Perceptions of the Amount of Prior Knowledge Their Students Have Regarding Financial Concepts

Perception		K	1	2	K,1	K, 2	1,2	K, 1, 2	Total
None at all	Count	45	45	26	2	1	5	11	135
	% by perception	33.3	33.3	19.3	1.5	0.7	3.7	8.1	100
	% by grade level	56.3	52.9	35.1	66.7	100	83.3	84.6	51.5
	% of Total	17.2	17.2	9.9	0.8	0.4	1.9	4.2	51.5
A little	Count	34	37	43	1	0	1	2	118
	% by perception	28.8	31.4	36.4	0.8	0.0	0.8	1.7	100
	% by grade level	42.5	43.5	58.1	33.3	0.0	16.7	15.4	45.0
	% of Total	13	14.1	16.4	0.4	0.0	0.4	0.8	45.0
A moderate amount	Count	1	3	5	0	0	0	0	9
	% by perception	11.1	33.3	55.6	0.0	0.0	0.0	0.0	100
	% by grade level	1.3	3.5	6.8	0.0	0.0	0.0	0.0	3.4
	% of Total	0.4	1.1	1.9	0.0	0.0	0.0	0.0	3.4
A great deal	Count	0	0	0	0	0	0	0	0
	% by perception	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% by grade level	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	% of Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade level	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

The results in Table 5 display that the majority of the K–2 teachers surveyed believe that their students have little to no prior knowledge regarding financial concepts before instruction in the current classroom. The data show that more second grade teachers perceive their students to have greater prior knowledge than those of kindergarten or first grade, which would make sense if there was a belief that the prior knowledge stemmed from a previous grade level. The perception of where students gain this prior knowledge was asked in a subsequent survey item.

Though more second grade teachers than first or kindergarten felt that prior schooling applied, teachers perceive that students' prior knowledge and experience on financial literacy is mainly attained outside of the classroom. Many of the teachers feel the home environment is the greatest contributing factor. The responses for this survey item are displayed in Table 6. Of the completed surveys, 83.2% of the teachers believe prior experience and knowledge come from the "Home environment." The next highest was "General society" (34.7%), "Prior schooling" (11.5%), and then "Other" (1.9%.) Responses for "Other" included "no prior knowledge," "Junior Achievement," "My students are kindergarten coming from multiple countries," "the streets," and "school". However, in accordance to developmentally appropriate practice, I was not only interested in teachers' perceptions of students' previous knowledge, but their cognitive capability for learning such concepts.

Table 6

Teachers' Perceptions of Where Students Obtained Their Prior Knowledge Regarding Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
General society	Count[a]	23	33	30	1	0	5	1	91
	% by standard[b]	25.3	36.3	33.0	1.1	0.0	3.3	1.1	100
	% by grade category[c]	28.8	38.8	40.5	33.3	0.0	83.3	7.8	34.7
Home environment	Count	69	68	60	3	1	5	12	218
	% by standard	31.7	31.2	27.5	1.4	0.5	2.3	5.5	100
	% by grade category	86.3	80.0	81.1	100	100	83.3	92.3	83.2
Prior schooling	Count	7	7	15	0	0	1	0	30
	% by standard	23.0	23.3	50.0	0.0	0.0	3.3	0.0	100
	% by grade category	8.8	8.2	17.6	0.0	0.0	16.7	0.0	11.5
Other	Count	2	0	2	0	0	0	1	5
	% by standard	40.0	0.0	40.0	0.0	0.0	0.0	20.0	100
	% by grade category	2.5	0.0	2.4	0.0	0.0	0.0	7.7	1.9

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each standard as broken down by grade category. [b]The percent by standard is the count for each standard divided by the total count for that standard. [c]The percent by grade category is the count for each standard divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Research Question 2: What are teachers' perceptions of students' cognitive readiness to develop knowledge and skill regarding financial literacy? Table 7 is a representation of teachers' perceptions of such cognitive readiness. Data show that teachers perceive students to more likely be cognitively ready to develop knowledge and skill regarding financial literacy than to not, with more teachers selecting "Slightly likely" or "Extremely likely" rather than unlikely. The data exhibit that there is a stronger belief that the content is more cognitively appropriate for a second grader than a

kindergartner, but overall consensus appears to be that teachers believe instruction in financial literacy is cognitively appropriate at these grade levels.

Table 7

Teachers' Perceptions of Students' Cognitive Readiness to Understand Grade-Level Financial Concepts

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Extremely unlikely	Count[a]	19	15	4	2	0	2	6	48
	% by perception[b]	39.6	31.3	8.3	4.2	0.0	4.2	12.5	100
	% by grade category[c]	23.8	17.6	5.4	66.7	0.0	33.3	46.2	18.3
	% of Total[d]	7.3	5.7	1.5	0.8	0.0	0.8	2.3	18.3
Slightly unlikely	Count	15	19	12	1	0	1	2	50
	% by perception	30.0	38.0	24.0	2.0	0.0	2.0	4.0	100
	% by grade category	18.8	22.4	16.2	33.3	0.0	16.7	15.4	19.1
	% of Total	5.7	7.3	4.6	0.4	0.0	0.4	0.8	19.1
Slightly likely	Count	34	41	48	0	1	3	3	130
	% by perception	26.2	31.5	36.9	0.0	0.8	2.3	2.3	100
	% by grade category	42.5	48.2	64.9	0.0	100	50.0	23.1	49.6
	% of Total	13.0	15.6	18.3	0.0	0.4	1.1	1.1	49.6
Extremely likely	Count	12	10	10	0	0	0	2	34
	% by perception	35.3	29.4	29.4	0.0	0.0	0.0	5.9	100
	% by grade category	15.0	11.8	13.5	0.0	0.0	0.0	15.4	13.0
	% of Total	4.6	3.8	3.8	0.0	0.0	0.0	0.8	13.0
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

In order to validate teachers' perceptions of appropriateness, I asked two questions relating to specific financial concepts and skills to have a deeper understanding if the teachers viewed them differently. Table 8 and Table 9 are related to item numbers 15 and 16 on the survey. I delineated the difference between financial skills and financial concepts to examine whether teachers believed students were better able to understand and perform one over the other.

The data show that teachers seem to believe that students at this level are overall better able to understand financial skills than financial concepts. The participants felt much more confident in the appropriateness of financial skills (66.4%) to concepts (10.3%). Overall, only 5.8% of those surveyed felt the skills were inappropriate, whereas more than half (58.4%) believed the concepts were inappropriate at the K–2 level. I would attribute this to the higher cognitive demand placed on the students when understanding concepts over performing skills.

Table 8

Teachers' Perceptions of How Appropriate It Is to Teach Specific Financial Skills

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Extremely inappropriate	Count[a]	3	2	1	0	0	1	0	7
	% by perception[b]	42.9	28.6	14.3	0.0	0.0	14.3	0.0	100
	% by grade category[c]	3.8	2.4	1.4	0.0	0.0	16.7	0.0	2.7
	% of Total[d]	1.1	0.8	0.4	0.0	0.0	0.4	0.0	2.7
Slightly inappropriate	Count	4	3	0	0	0	0	1	8
	% by perception	50.0	37.5	0.0	0.0	0.0	0.0	12.5	100
	% by grade category	5.0	3.5	0.0	0.0	0.0	0.0	7.7	3.1
	% of Total	1.5	1.1	0.0	0.0	0.0	0.0	0.4	3.1
Slightly appropriate	Count	33	29	7	1	0	1	2	73
	% by perception	45.2	39.7	9.6	1.4	0.0	1.4	2.7	100
	% by grade category	41.3	34.1	9.5	33.3	0.0	16.7	15.4	27.9
	% of Total	12.6	11.1	2.7	0.4	0.0	0.4	0.8	27.9
Extremely appropriate	Count	40	51	66	2	1	4	10	174
	% by perception	23.0	29.3	37.9	1.1	0.6	2.3	5.7	100
	% by grade category	50.0	60.0	89.2	66.7	100	66.7	76.9	66.4
	% of Total	15.3	19.5	25.2	0.8	0.4	1.5	3.8	66.4
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Table 9

Teachers' Perceptions of How Appropriate It Is to Teach Specific Financial Concepts

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Extremely inappropriate	Count[a]	37	18	9	2	1	1	1	69
	% by perception[b]	53.6	26.1	13.0	2.9	1.4	1.4	1.4	100
	% by grade category[c]	46.3	21.2	12.2	66.7	100	16.7	7.7	26.3
	% of Total[d]	14.1	6.9	3.4	0.8	0.4	0.4	0.4	26.3
Slightly inappropriate	Count	25	31	18	1	0	2	7	84
	% by perception	29.8	36.9	21.4	1.2	0.0	2.4	8.3	100
	% by grade category	31.3	36.5	24.3	33.3	0.0	33.3	53.8	32.1
	% of Total	9.5	11.8	6.9	0.4	0.0	0.8	2.7	32.1
Slightly appropriate	Count	16	27	33	0	0	3	3	82
	% by perception	19.5	32.9	40.2	0.0	0.0	3.7	3.7	100
	% by grade category	20.0	31.8	44.6	0.0	0.0	50.0	23.1	31.3
	% of Total	6.1	10.3	12.6	0.0	0.0	1.1	1.1	31.3
Extremely appropriate	Count	2	9	14	0	0	0	2	27
	% by perception	7.4	33.3	51.9	0.0	0.0	0.0	7.4	100
	% by grade category	2.5	10.6	18.9	0.0	0.0	0.0	15.4	10.3
	% of Total	0.8	3.4	5.3	0.0	0.0	0.0	0.8	10.3
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

I also wanted to get a better picture of where teachers thought their students would be, cognitively, after they have had a year instruction in the surveyed classroom. Item number 17 examined this perception (Table 10).

Table 10

Teachers' Perceptions of the Level of Understand Students Will Have by the End of the School Year Regarding Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
No understanding	Count[a]	30	30	5	1	0	2	6	74
	% by perception[b]	40.5	40.5	6.8	1.4	0.0	2.7	8.1	100
	% by grade category[c]	37.5	35.3	6.8	33.3	0.0	33.3	46.2	28.2
	% of Total[d]	11.5	11.5	1.9	0.4	0.0	0.8	2.3	28.2
Basic understanding	Count	49	53	65	2	1	4	6	180
	% by perception	27.2	29.4	36.1	1.1	0.6	2.2	3.3	100
	% by grade category	61.3	62.4	87.8	66.7	100	66.7	46.2	68.7
	% of Total	18.7	20.2	24.8	0.8	0.4	1.5	2.3	68.7
More understanding than expected	Count	1	2	4	0	0	0	1	8
	% by perception	12.5	25.0	50.0	0.0	0.0	0.0	12.5	100
	% by grade category	1.3	2.4	5.4	0.0	0.0	0.0	7.7	3.1
	% of Total	0.4	0.8	1.5	0.0	0.0	0.0	0.4	3.1
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

The majority of the K–2 teachers indicated that students will leave their classroom with a basic understanding regarding financial literacy by the end of the school year (68.7%). This statistic signifies that teachers will be actively instructing on money concepts and skills sometime throughout the year. The data also show that the teachers perceive a second grader more apt to understand financial literacy than a first, and first

more than kindergarten. This aligns with teachers' beliefs regarding cognitive readiness and what is considered developmentally appropriate at these grade levels.

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Research Question 3: What are teachers' perceptions of the importance of teaching financial literacy in kindergarten through Grade 2? One particular item on the survey instrument addressed the extent of which teachers value instructing on financial literacy. It was also a four point Likert-based scale and the results exhibited that more teachers find teaching financial literacy in K–Grade 2 to be more important than not.

Table 11

Teachers' Perceptions of How Important It Is to Teach Financial Literacy at Their Grade Level

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Not at all important	Count[a]	13	6	1	1	0	0	0	21
	% by perception[b]	61.9	28.6	4.8	4.8	0.0	0.0	0.0	100
	% by grade category[c]	16.3	7.1	1.4	33.3	0.0	0.0	0.0	8.0
	% of Total[d]	5.0	2.3	0.4	0.4	0.0	0.0	0.0	8.0
Slightly important	Count	45	43	10	1	0	3	6	108
	% by perception	41.7	39.8	9.3	0.9	0.0	2.8	5.6	100
	% by grade category	56.3	50.6	13.5	33.3	0.0	50.0	46.2	41.2
	% of Total	17.2	16.4	3.8	0.4	0.0	1.1	2.3	41.2
Moderately important	Count	13	25	28	1	0	2	5	74
	% by perception	17.6	33.8	37.8	1.4	0.0	2.7	6.8	100
	% by grade category	16.3	29.4	37.8	33.3	0.0	33.3	38.5	28.2
	% of Total	5.0	9.5	10.7	0.4	0.0	0.8	1.9	28.2
Very important	Count	9	11	35	0	1	1	2	59
	% by perception	15.3	18.6	59.3	0.0	1.7	1.7	3.4	100
	% by grade category	11.3	12.9	47.3	0.0	100	16.7	15.4	22.5
	% of Total	3.4	4.2	13.4	0.0	0.4	0.4	0.8	22.5
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.8	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Broken down by grade level, the results in Table 11 show that more teachers value the importance of teaching financial literacy in the second grade, than in kindergarten, but overall 92.0% find at least some importance in teaching financial

literacy in K–Grade 2. Of the participants that believed it is not important at all, 13 were kindergarten only, 6 were first only, and just 1 participant in second grade only. Slightly more than half of the surveyed participants believe that it is moderately or very important to instruct money concepts and skills (50.7%). These results are significant in determining the enacted curriculum of the classroom. Teachers must believe that financial literacy has worth to purposefully include it into their scope and sequence.

Research Question 4: How knowledgeable are teachers regarding financial literacy standards? One of the most surprising findings, yet aligned with the Phase 1 perceptions, was just how many teachers are unaware that the Jump$tart National Standards in K–12 Personal Finance Education even exist. Item number 33, specifically addressed how familiar the K–2 teachers are with the standards. Table 12 displays these results as broken down by grade level.

Table 12

Teachers Familiarity with the National Standards in K–12 Personal Finance Education *Created by the Jump$tart Coalition*

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Not familiar at all	Count[a]	74	81	71	3	1	6	12	248
	% by perception[b]	29.8	32.7	28.6	1.2	0.4	2.4	4.8	100
	% by grade category[c]	92.5	95.3	95.9	100	100	100	92.3	94.7
	% of Total[d]	28.2	30.9	27.1	1.1	0.4	2.3	4.6	94.7
Slightly familiar	Count	5	3	3	0	0	0	1	12
	% by perception	41.7	25.0	25.0	0.0	0.0	0.0	8.3	100
	% by grade category	6.3	3.5	4.1	0.0	0.0	0.0	7.7	4.6
	% of Total	1.9	1.1	1.1	0.0	0.0	0.0	0.4	4.6
Moderately familiar	Count	0	1	0	0	0	0	0	1
	% by perception	0.0	100	0.0	0.0	0.0	0.0	0.0	100
	% by grade category	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.4
	% of Total	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
Extremely familiar	Count	1	0	0	0	0	0	0	1
	% by perception	100	0.0	0.0	0.0	0.0	0.0	0.0	100
	% by grade category	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4
	% of Total	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.0	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Out of the 262 survey responses, 14 were even aware of the standards, with the majority of those only being at the slightly familiar level. This aligns with the data concerning the teachers' own proficiencies with financial literacy content. Item number

7, 8, and 9 asked teachers about their personal experience with pre-service coursework, college coursework, and in-service professional development that they have received in economics or in teaching financial literacy. The data is represented in Table 13, 14, and 15.

According to this data, 42.7% of the participants claim to have taken no college courses in economics or finance. The next highest response was one course (30.5%), and then two (17.6%). Only 24 participants (9.2%) claimed to have taken more than two courses at the college level.

These results are also consistent with the results regarding the amount of exposure the participants have had in pre-service course work in instructing on financial literacy K–12 content. Of the 262 completed surveys, 118 participants claimed to have no instruction on how to teach financial concepts and skills and 125 had “A little”. Only 19 teachers responded that they had received a moderate or a great deal of instruction on how to teach money concepts and skills within the K–12 curricula.

I was interested in both pre-service work as well as how much professional development the teachers received after they had started their career. A majority of participants (204) claimed to have not partaken in any professional development opportunities regarding financial literacy. Those that had maintained to have received a little. Only one teacher declared to have experienced a great deal of professional development, which happened to be a first grade teacher.

Table 13

Number of College Courses Taken in Economics or Finance

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None	Count[a]	35	34	30	2	1	6	4	112
	% by perception[b]	31.3	30.4	26.8	1.8	0.9	5.4	3.6	100
	% by grade category[c]	43.8	40.0	40.5	66.7	100	100	30.8	42.7
	% of Total[d]	13.4	13.0	11.5	0.8	0.4	2.3	1.5	42.7
One	Count	22	33	22	0	0	0	3	80
	% by perception	27.5	41.3	27.5	0.0	0.0	0.0	3.8	100
	% by grade category	27.5	38.8	29.7	0.0	0.0	0.0	23.1	30.5
	% of Total	8.4	12.6	8.4	0.0	0.0	0.0	1.1	30.5
Two	Count	14	15	14	1	0	0	2	46
	% by perception	30.4	32.6	30.4	2.2	0.0	0.0	4.3	100
	% by grade category	17.5	17.6	18.9	33.3	0.0	0.0	15.4	17.6
	% of Total	5.3	5.7	5.3	0.4	0.0	0.0	0.8	17.6
More than two	Count	9	3	8	0	0	0	4	24
	% by perception	37.5	12.2	33.3	0.0	0.0	0.0	16.7	100
	% by grade category	11.3	3.5	10.8	0.0	0.0	0.0	30.8	9.2
	% of Total	3.4	1.1	3.1	0.0	0.0	0.0	1.5	9.2
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Table 14

Teachers' Perception of the Extent to Which They Were Exposed to Financial Literacy Content Related to K–12 in Their Own Academic Experience or Pre-Service Course Work

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None at all	Count[a]	32	32	38	3	1	4	8	118
	% by perception[b]	27.1	27.1	32.2	2.5	0.8	3.4	6.8	100
	% by grade category[c]	40.0	37.6	51.4	100	100	66.7	61.5	45.0
	% of Total[d]	12.2	12.2	14.5	1.1	0.4	1.5	3.1	45.0
A little	Count	41	48	30	0	0	2	4	125
	% by perception	32.8	38.4	24.0	0.0	0.0	1.6	3.2	100
	% by grade category	51.2	56.5	40.5	0.0	0.0	33.3	30.8	47.5
	% of Total	15.6	18.3	11.5	0.0	0.0	0.8	1.5	47.5
A moderate amount	Count	6	4	6	0	0	0	1	17
	% by perception	35.3	23.5	35.3	0.0	0.0	0.0	5.9	100
	% by grade category	7.5	4.7	8.1	0.0	0.0	0.0	7.7	6.5
	% of Total	2.3	1.5	2.3	0.0	0.0	0.0	0.4	6.5
A great deal	Count	1	1	0	0	0	0	0	2
	% by perception	50.0	50.0	0.0	0.0	0.0	0.0	0.0	100
	% by grade category	1.3	1.2	0.0	0.0	0.0	0.0	0.0	0.8
	% of Total	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.8
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Table 15

Teachers' Perception of How Much In-Service Professional Development They Have Received on Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None at all	Count[a]	64	61	59	3	1	5	11	204
	% by perception[b]	31.4	29.9	28.9	1.5	0.5	2.5	5.4	100
	% by grade category[c]	80.0	71.8	79.7	100	100	83.3	84.6	77.9
	% of Total[d]	24.4	23.3	22.5	1.1	0.4	1.9	4.2	77.9
A little	Count	14	22	13	0	0	1	2	52
	% by perception	26.9	42.3	25.0	0.0	0.0	1.9	3.8	100
	% by grade category	17.5	25.9	17.6	0.0	0.0	16.7	15.4	19.8
	% of Total	5.3	8.4	5.0	0.0	0.0	0.4	0.8	19.8
A moderate amount	Count	2	1	2	0	0	0	0	5
	% by perception	40.0	20.0	40.0	0.0	0.0	0.0	0.0	100
	% by grade category	2.5	1.2	2.7	0.0	0.0	0.0	0.0	1.9
	% of Total	0.8	0.4	0.8	0.0	0.0	0.0	0.0	1.9
A great deal	Count	0	1	0	0	0	0	0	1
	% by perception	0.0	100	0.0	0.0	0.0	0.0	0.0	100
	% by grade category	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.4
	% of Total	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

The overall sense is that teachers are lacking proper training in teaching financial literacy concepts and skills and this could be attributed to their own lack of course work in the field. It is possible that teachers are not aware of the *National Standards in K–12*

Personal Finance Education that were created by the Jump$tart Coalition because they have never been instructed to reference them.

K–2 teachers are however, responsible for implementing Ohio's Learning Standards for Mathematics and Ohio's Learning Standards for Social Studies in their classroom, so I asked them a couple of questions regarding standards that shape their enacted curriculum. Table 16 and 17 show the results of the question related to requirements.

It seems as if there is a confusion on whether financial concepts and skills are even required for kindergarten, first, and second grade. Of those that responded, 77.5% of teachers that only instruct kindergarten believe that financial literacy is not required as part of their curriculum. The perception of the first grade only teachers also leaned toward no, where 61.2% believe that they are not required to teach financial literacy. In second grade only however, more teachers claim it is a requirement (56.8%) than those that do not, or do not know (41.9%).

Though teachers are unsure of the requirements, 47.7% of K–2 teachers draw their money concepts and skills from the Common Core State Standards for Mathematics (CCSSM). Only 26.7% of the teachers claimed to address financial literacy using the Ohio's Learning Standards for Mathematics, though the Ohio standards are drawn directly from CCSSM. This is a concerning statistic regarding the clarity of what teachers are expected to cover at each grade level.

Table 16

Is Financial Education Instruction Required for the Grade Taught?

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Yes	Count[a]	13	25	42	1	0	2	1	84
	% by perception[b]	15.5	29.8	50.0	1.2	0.0	2.4	1.2	100
	% by grade category[c]	16.3	29.4	56.8	33.3	0.0	33.3	7.7	32.1
	% of Total[d]	5.0	9.5	16.0	0.4	0.0	0.8	0.4	32.1
No	Count	62	52	22	0	1	3	9	149
	% by perception	41.6	34.9	14.8	0.0	0.7	2.0	6.0	100
	% by grade category	77.5	61.2	29.7	0.0	100	50.0	69.2	56.9
	% of Total	23.7	19.8	8.4	0.0	0.4	1.1	3.4	56.9
I don't know	Count	5	7	9	2	0	0	1	24
	% by perception	20.8	29.2	37.5	8.3	0.0	0.0	4.2	100
	% by grade category	6.3	8.2	12.2	66.7	0.0	0.0	7.7	9.2
	% of Total	1.9	2.7	3.4	0.8	0.0	0.0	0.4	9.2
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Table 17

Standards That Shape the Content That Is Required for Teaching Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None at all	Count[a]	23	17	4	1	0	1	2	48
	% by standard[b]	47.9	35.4	8.3	2.1	0.0	2.1	4.2	100
	% by grade category[c]	28.8	20.0	5.4	33.3	0.0	16.7	15.4	18.3
OLS Mathematics	Count	17	21	26	0	0	1	5	70
	% by standard	24.3	30.0	37.1	0.0	0.0	1.4	7.1	100
	% by grade category	21.3	24.7	35.1	0.0	0.0	16.7	38.5	26.7
OLS Social Studies	Count	25	34	40	0	0	0	6	105
	% by standard	23.8	32.4	38.1	0.0	0.0	0.0	5.7	100
	% by grade category	31.3	40.0	54.1	0.0	0.0	0.0	46.2	40.1
District's Standards for Mathematics	Count	8	6	5	0	0	1	0	20
	% by standard	40.0	30.0	25.0	0.0	0.0	5.0	0.0	100
	% by grade category	10.0	7.1	6.8	0.0	0.0	16.7	0.0	7.6
District's Standards for Social Studies	Count	8	9	3	0	0	1	1	22
	% by standard	36.4	40.9	13.6	0.0	0.0	4.5	4.5	100
	% by grade category	10.0	10.6	4.1	0.0	0.0	16.7	7.7	8.4
CCSS Mathematics	Count	34	39	41	1	1	4	5	125
	% by standard	27.2	31.2	32.8	0.8	0.8	3.2	4.0	100
	% by grade category	42.5	45.9	55.4	33.3	100	66.7	38.5	47.7
CCSS Language Arts	Count	9	7	3	0	0	2	0	21
	% by standard	42.9	33.3	14.3	0.0	0.0	9.5	0.0	100
	% by grade category	11.3	8.2	4.1	0.0	0.0	33.3	0.0	8.0
Other	Count	4	2	0	1	0	0.0	2	9
	% by standard	44.4	22.2	0.0	11.1	0.0	0.0	22.2	100
	% by grade category	5.0	2.4	0.0	33.3	0.0	0.0	15.4	3.4

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each standard as broken down by grade category. [b]The percent by standard is the count for each standard divided by the total count for that standard. [c]The percent by grade category is the count for each standard divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

18.3% of the K–2 teachers surveyed claimed that there are no standards which serve as a guide for incorporating financial literacy in the curriculum, though the teachers are, in fact, including the content. This leads me to believe that it is their value of teaching money concepts and skills that prompts them to include it into the curriculum, rather than a mandate of the state.

Being that teachers play a major role in the enacted curriculum, I was interested in the teachers' perception of where they believed financial literacy belongs regardless of the recommendation from the standards. Table 18 displays these results.

Table 18

Teachers' Perceptions of What Subject Area(s) Financial Literacy Applies

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Language Arts	Count[a]	33	26	25	1	0	1	4	90
	% by subject area[b]	36.7	28.9	27.8	1.1	0.0	1.1	4.4	100
	% by grade category[c]	41.3	30.6	33.8	33.3	0.0	16.7	30.8	34.4
Mathematics	Count	76	80	72	3	1	6	11	249
	% by subject area	30.5	32.1	28.9	1.2	0.4	2.4	4.4	100
	% by grade category	95.0	94.1	97.3	100	100	100	84.6	95.0
Social Studies	Count	59	69	64	1	1	5	7	206
	% by subject area	28.6	33.5	31.1	0.5	0.5	2.4	3.4	100
	% by grade category	73.8	81.2	90.5	33.3	100	83.3	53.8	78.6
Other	Count	5	6	3	0	0	1	1	16
	% by subject area	31.3	37.5	18.8	0.0	0.0	6.3	6.3	100
	% by grade category	6.3	7.1	4.1	0.0	0.0	16.7	7.7	6.1

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each subject area as broken down by grade category. [b]The percent by subject area is the count for each subject area divided by the total count for that subject area. [c]The percent by grade category is the count for each subject area divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Participants were able to choose as many responses that applied and a great deal (*n*=249) believe financial literacy falls in the realm of mathematics. There is also a strong showing for social studies (*n*=206), and perhaps in the essence of cross-curriculum, 90 participants also included language arts. Of those that chose "Other," responses included, "None," "Life skills," "Calendar time correlated to the days of the school year," "Fundraising," "Life and careers," "Everywhere," and "All subjects." One teacher even went on to say that, "All teachers teach morals and values even if we are not grading these skills! This is included in this class for sure!"

In regards to whether teachers' perceive it necessary to teach financial literacy skills and concepts, the standards that are required to be covered, along with where teachers' view it fitting into the curriculum, I asked the participants if they assess their students regarding financial literacy, and if so, how often? Table 19 display these results.

About half of the participants claim to use "One-on-one" assessment (43.1%), "small group assessment" (48.1%), and "large group assessment" (46.9%). Of those that chose "I don't assess them," the largest were kindergarten only teachers (45.0%).

Table 19

Teachers' Perceptions of How to Assess Students Regarding Financial Literacy.

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
One-on-one	Count[a]	27	28	47	1	0	3	7	113
	% by perception[b]	23.9	24.8	41.6	0.9	0.0	2.7	6.2	100
	% by grade category[c]	33.8	32.9	63.5	33.3	0.0	50.0	53.8	43.1
Small group	Count	28	30	53	0	0	4	11	126
	% by perception	22.2	23.8	42.1	0.0	0.0	3.2	8.7	100
	% by grade category	35.0	35.3	71.6	0.0	0.0	66.7	84.6	48.1
Large group	Count	22	35	61	0	0	2	3	123
	% by perception	17.9	28.5	49.6	0.0	0.0	1.6	2.4	100
	% by grade category	27.5	41.2	82.4	0.0	0.0	33.3	23.1	46.9
I don't assess them	Count	36	30	3	2	1	2	2	76
	% by perception	47.4	39.5	3.9	2.6	1.3	2.6	2.6	100
	% by grade category	45.0	35.3	4.1	66.7	100	33.3	15.4	29.0

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

If the teachers were assessing their students, I was interested in what methods were being used. Table 20 displays these results. According to the data, "Verbal questioning" (55.7%) and "Paper/Pencil assessment" (54.6%) are most used out of the assessments listed. In the "Other" category, teachers listed, "None," "Computer game assessments," "NWEA Map assessment," "One on one listening to them count," "Observation," and "Anecdotal notes." One participant wrote that, "I don't test my kids on money. That is a second grade standard. I do however test word problems that may how many can be brought, but is not based on real dollar amounts."

Table 20

Teachers' Perceptions of Types of Assessment Used for Assessing Financial Literacy.

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Paper/Pencil assessment	Count[a]	18	42	70	1	0	4	8	143
	% by assessment[b]	12.6	29.4	49.0	0.7	0.0	2.8	5.6	100
	% by grade category[c]	22.5	49.4	94.6	33.3	0.0	66.7	61.5	54.6
Performance assessment	Count	21	24	46	1	0	4	9	105
	% by assessment	20.0	22.9	43.8	1.0	0.0	3.8	8.6	100
	% by grade category	26.3	28.2	62.2	33.3	0.0	66.7	69.2	40.1
Standardized Test	Count	3	6	25	0	0	1	0	35
	% by assessment	8.6	17.1	71.4	0.0	0.0	2.9	0.0	100
	% by grade category	3.8	7.1	33.8	0.0	0.0	16.7	0.0	13.4
Verbal questioning	Count	35	47	53	0	0	4	7	146
	% by assessment	24.0	32.2	36.3	0.0	0.0	2.7	4.80	100
	% by grade category	43.8	55.3	71.6	0.0	0.0	66.7	53.8	55.7
I don't assess them	Count	31	26	2	2	1	1	1	64
	% by assessment	48.4	40.6	3.1	3.1	1.5	1.6	1.6	100
	% by grade category	38.8	30.6	2.7	66.7	100	16.7	7.7	23.7
Other	Count	6	3	2	0	0	1	1	13
	% by assessment	46.2	23.1	15.4	0.0	0.0	7.7	7.7	100
	% by grade category	7.5	3.5	2.7	0.0	0.0	16.7	7.7	5.0

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each assessment as broken down by grade category. [b]The percent by assessment is the count for each assessment divided by the total count for that assessment. [c]The percent by grade category is the count for each assessment divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Research Question 5: How do the perceptions addressed in questions 1–4 influence the planning and instruction of financial literacy standards? The data show that teachers do find importance in instructing on financial literacy, so how does this,

along with their perceptions of students' prior knowledge and cognitive readiness, play a role on the intended and enacted curriculum of their classroom? I wanted to further explore, what, when, and how money concepts and skills were being taught.

What are the financial skills and concepts being taught? For this survey, I delineated the difference between financial skills and financial concepts through the naming of specific items and asked the teachers which elements they chose to attend to in their classroom. Table 21 lists each specified skill and Table 22, each specified concept with the percentage of teachers incorporating them into their teaching per grade level.

More than half of the teachers surveyed acknowledged "Coin Identification" (82.4%), "Counting" (87.0%), and "Sorting by attribute" (59.5%) as skills being taught in the K–2 classrooms. "Making change" had a much higher presence in second grade only (73.0%) than in the other two grade levels. That data show that "Exchanging coins/bills for the same value" also is a skill taught more in the second grade classrooms that were surveyed than in kindergarten (6.3%) or first (28.2%).

For concepts, "Spending" (59.9%), however was the only concept being taught by more than half of the teachers though saving came close (48.5%). The majority of the answers written in for the "Other" category consisted of "None," but a few additions such as "credit cards", and "opportunity costs" were included.

Table 21

Financial Skills Teachers Teach in Their Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Coin identification	Count[a]	53	74	72	1	0	4	12	216
	% by skill[b]	24.5	34.3	33.3	0.5	0.0	1.9	5.6	100
	% by grade category[c]	66.3	87.1	97.3	33.3	0.0	66.7	92.3	82.4
Counting	Count	66	73	73	1	0	4	11	228
	% by skill	28.9	32.0	32.0	0.4	0.0	1.8	4.8	100
	% by grade category	82.5	85.9	98.6	33.3	0.0	66.7	84.6	87.0
Exchanging coins/bills for the same value	Count	5	24	64	0	0	2	8	103
	% by skill	4.9	23.3	62.1	0.0	0.0	1.9	7.8	100
	% by grade category	6.3	28.2	86.5	0.0	0.0	33.3	61.5	39.3
Making change	Count	4	6	54	0	0	0	7	71
	% by skill	5.6	8.5	76.1	0.0	0.0	0.0	9.9	100
	% by grade category	5.0	7.1	73.0	0.0	0.0	0.0	53.8	27.1
Sorting by attribute	Count	55	48	41	1	0	3	8	156
	% by skill	35.3	30.8	26.3	0.6	0.0	1.9	5.1	100
	% by grade category	68.8	56.5	55.4	33.3	0.0	50.0	61.5	59.5
Other	Count	8	11	9	1	1	3	1	34
	% by skill	23.5	32.4	26.5	2.9	2.9	8.8	2.9	100
	% by grade category	10.0	12.9	12.2	33.3	100	50.0	7.7	13.0

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each skill as broken down by grade category. [b]The percent by skill is the count for each skill divided by the total count for that skill. [c]The percent by grade category is the count for each skill divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Table 22

Financial Concepts Teachers Teach in Their Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Assets	Count[a]	3	3	0	0	0	0	0	6
	% by concept[b]	50.0	50.0	0.0	0.0	0.0	0.0	0.0	100
	% by grade category[c]	3.8	35.3	0.0	0.0	0.0	0.0	0.0	2.3
Debt	Count	0	2	4	0	0	1	0	7
	% by concept	0.0	28.6	57.1	0.0	0.0	14.3	0.0	100
	% by grade category	0.0	23.5	5.4	0.0	0.0	16.7	0.0	2.7
Inflation	Count	3	0	0	0	0	0	0	3
	% by concept	100	0.0	0.0	0.0	0.0	0.0	0.0	100
	% by grade category	3.8	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Interest	Count	1	1	7	0	0	0	0	9
	% by concept	11.1	11.1	77.8	0.0	0.0	0.0	0.0	100
	% by grade category	1.3	1.2	9.5	0.0	0.0	0.0	0.0	3.4
Loans	Count	0	0	5	0	0	0	0	5
	% by concept	0.0	0.0	100	0.0	0.0	0.0	0.0	100
	% by grade category	0.0	0.0	6.8	0.0	0.0	0.0	0.0	1.9
Risk	Count	0	2	4	0	0	0	0	6
	% by concept	0.0	33.3	66.7	0.0	0.0	0.0	0.0	100
	% by grade category	0.0	2.4	5.4	0.0	0.0	0.0	0.0	2.3
Saving	Count	31	44	47	0	0	2	3	127
	% by concept	24.4	34.6	37.0	0.0	0.0	1.6	2.4	100
	% by grade category	38.8	51.8	63.5	0.0	0.0	33.3	23.1	48.5
Spending	Count	36	48	62	0	0	4	7	157
	% by concept	22.9	30.6	39.5	0.0	0.0	2.5	4.5	100
	% by grade category	45.0	56.5	83.8	0.0	0.0	66.7	53.8	59.9
Other	Count	31	32	13	3	1	3	5	88
	% by concept	35.2	36.4	14.8	3.4	1.1	3.4	5.7	100
	% by grade category	38.8	40.0	17.6	100	16.7	50.0	38.5	33.6

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each concept as broken down by grade category. [b]The percent by concept is the count for each concept divided by the total count for that concept. [c]The percent by grade category is the count for each concept divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

When are financial skills and concepts being taught? The Phase 1 interviews revealed that financial concepts and skills were being taught more than even the teachers recognized, but I wanted to know whether teaching them so often was a common practice throughout the state. Table 23 and Table 24 displays the data on when, or how often, the participants claimed to be teaching financial literacy in their classroom.

Table 23

How Often, Teachers Are Teaching Financial Skills and Concepts in the Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Daily	Count[a]	11	9	7	1	0	1	1	30
	% by perception[b]	36.7	30.0	23.3	3.3	0.0	3.3	3.3	100
	% by grade category[c]	13.8	10.6	9.5	33.3	0.0	16.7	7.7	11.5
	% of Total[d]	4.2	3.4	2.7	0.4	0.0	0.4	0.4	11.5
Weekly	Count	16	14	28	0	0	1	3	62
	% by perception	25.8	22.6	45.2	0.0	0.0	1.6	4.8	100
	% by grade category	20.0	16.5	37.8	0.0	0.0	16.7	23.1	23.7
	% of Total	6.1	5.3	10.7	0.0	0.0	0.4	1.1	23.7
Monthly	Count	15	19	19	0	0	2	4	59
	% by perception	25.4	32.2	32.2	0.0	0.0	3.4	6.8	100
	% by grade category	18.8	22.4	25.7	0.0	0.0	33.3	30.8	22.5
	% of Total	5.7	7.3	7.3	0.0	0.0	0.8	1.5	22.5
Yearly	Count	23	35	19	0	0	0	3	80
	% by perception	28.7	43.8	23.8	0.0	0.0	0.0	3.8	100
	% by grade category	28.7	41.2	25.7	0.0	0.0	0.0	23.1	30.5
	% of Total	8.8	13.4	7.3	0.0	0.0	0.0	1.1	30.5
Never	Count	15	8	1	2	1	2	2	31
	% by perception	48.4	25.8	3.2	6.5	3.2	6.5	6.5	100
	% by grade category	18.8	9.4	1.4	66.7	100	33.3	15.4	11.8
	% of Total	5.7	3.1	0.4	0.8	0.4	0.8	0.8	11.8

Table 23 (continued)

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Table 24

How Financial Concepts Are Distributed Over Time in the Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Daily	Count[a]	14	13	12	0	0	1	1	41
	% by perception[b]	34.1	31.7	29.3	0.0	0.0	2.4	2.4	100
	% by grade category[c]	17.5	15.3	16.2	0.0	0.0	16.7	7.7	15.6
As a separate unit	Count	15	30	39	0	0	2	5	91
	% by perception	16.5	33.0	42.9	0.0	0.0	2.2	5.5	100
	% by grade category	18.8	35.3	52.7	0.0	0.0	33.3	38.5	34.7
Periodically throughout the year	Count	43	53	42	1	0	2	6	147
	% by perception	29.3	36.1	28.6	0.7	0.0	1.4	4.1	100
	% by grade category	53.8	62.4	56.8	33.3	0.0	33.3	46.2	56.1
Never	Count	16	6	1	2	1	2	2	30
	% by perception	53.3	20.0	3.3	6.7	3.3	6.7	6.7	100
	% by grade category	20.0	7.1	1.4	66.7	100	33.3	15.4	11.5

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each standard as broken down by grade category. [b]The percent by standard is the count for each standard divided by the total count for that standard. [c]The percent by grade category is the count for each standard divided by the total number of participants per grade category: n(K)=80, n(1)=85, n(2)=74, n(K, 1)=3, n(K, 2)=1, n(1,2)=6, n(K, 1, 2)=13, and n(Total)=262.

The data show that 11.8% of the K–2 teachers surveyed are not teaching financial concepts at all in their classroom. On the other end of the spectrum, 11.5% of the teachers claim to instruct on these concepts daily. The majority of those addressing the concepts at any point are doing so yearly (30.5%).

The data are also showing that more than half of the teachers surveyed said that they teach financial concepts periodically throughout the year (56.1%). Fairly consistent with the results in Table 23, Table 24 shows that 11.5% of the participants never teach financial concepts. This statistic indicated that one person claimed to be teaching the financial concepts in Table 24, that did not designate so in Table 23.

How are financial skills and concepts being taught? From Phase 1 of the study, I was able to come up with a list of methods that were mentioned as ways to teach financial literacy in the K–2 classrooms. For item number 23 of the survey, teachers could choose from this list or write-in an "Other" option of their own. Table 25 displays these results.

Many of the teachers in Phase 1 indicated that they incorporated money concepts and skills through calendar time by creating a collection of coins to represent the date, or counting with coins to reach the number of days of school. Half of the participants (50.0%) surveyed in Phase 2 also used calendar time as a means for instructing on money. "Centers" (56.9%), "Games" (60.3%), and "Worksheets" (59.7%) were also popular means for teaching financial literacy as indicated by the survey results, whereas "Fundraising" which can be considered an applicable skill is used by only 6.9%. Items listed in the "Other" category included "Touch Money," "Class Discussions," "Junior Achievement," and "Math Textbook."

Table 25

Methods Used for Teaching Financial Skills and Concepts in the Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Behavior system	Count[a]	20	19	23	0	0	3	6	71
	% by method[b]	28.2	26.8	32.4	0.0	0.0	4.2	8.5	100
	% by grade category[c]	25.0	22.4	31.1	0.0	0.0	50.0	46.2	27.1
Calendar	Count	48	42	33	1	0	2	5	131
	% by method	36.6	32.1	25.2	0.8	0.0	1.5	3.8	100
	% by grade category	60.0	49.4	44.6	33.3	0.0	33.3	38.5	50.0
Centers	Count	50	37	52	0	0	3	7	149
	% by method	33.6	24.8	34.9	0.0	0.0	2.0	4.7	100
	% by grade category	62.5	43.5	70.3	0.0	0.0	50.0	53.8	56.9
Fundraising	Count	7	5	6	0	0	0	0	18
	% by method	38.9	27.8	33.3	0.0	0.0	0.0	0.0	100
	% by grade category	8.8	5.9	8.1	0.0	0.0	0.0	0.0	6.9
Games	Count	38	46	61	0	0	3	10	158
	% by method	24.1	29.1	38.6	0.0	0.0	1.9	6.3	100
	% by grade category	47.5	54.1	82.4	0.0	0.0	50.0	76.9	60.3
School store	Count	17	23	30	0	0	1	2	73
	% by method	23.3	31.5	41.1	0.0	0.0	1.4	2.7	100
	% by grade category	21.3	27.1	40.5	0.0	0.0	16.7	15.4	27.9
Worksheets	Count	33	48	63	1	0	4	8	157
	% by method	21.0	30.6	40.1	0.6	0.0	2.5	5.1	100
	% by grade category	41.3	56.5	85.1	33.3	0.0	66.7	61.5	59.9
Other	Count	13	11	13	3	1	2	2	45
	% by method	28.9	24.4	28.9	6.7	2.2	4.4	4.4	100
	% by grade category	16.3	12.9	45.0	100	100	33.3	15.4	17.2

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each method as broken down by grade category. [b]The percent by method is the count for each method divided by the total count for that method. [c]The percent by grade category is the count for each method divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

The Common Core State Standards for Mathematics stresses the importance of real world mathematics and modeling through the content standards and the Standards for Mathematical Practices (Common Core State Standards Initiative, 2010). One of the

survey questions specifically addressed problem solving as a measure of whether it was being used to instruct on financial literacy. The results are shown in Table 26.

Table 26

Teachers' Perception of How Often Problem Solving Is Used to Teach Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None at all	Count[a]	19	9	2	2	1	2	4	39
	% by perception[b]	48.7	23.1	5.1	5.1	2.6	5.1	10.3	100
	% by grade category[c]	23.8	10.6	2.7	66.7	100	33.3	30.8	14.9
	% of Total[d]	7.3	3.4	0.8	0.8	0.4	0.8	1.5	14.9
A little	Count	40	50	19	1	0	2	3	115
	% by perception	34.8	43.5	16.5	0.9	0.0	1.7	2.6	100
	% by grade category	50.0	58.8	25.7	33.3	0.0	33.3	23.1	43.9
	% of Total	15.3	19.1	7.3	0.4	0.0	0.8	1.1	43.9
A moderate amount	Count	18	20	41	0	0	2	5	86
	% by perception	20.9	23.3	47.7	0.0	0.0	2.3	5.8	100
	% by grade category	22.5	23.5	55.4	0.0	0.0	33.3	38.5	32.8
	% of Total	6.9	7.8	15.6	0.0	0.0	0.8	1.9	32.8
A great deal	Count	3	6	12	0	0	0	1	22
	% by perception	13.6	27.3	54.5	0.0	0.0	0.0	4.5	100
	% by grade category	3.8	7.1	16.2	0.0	0.0	0.0	7.7	8.4
	% of Total	1.1	2.3	4.6	0.0	0.0	0.0	0.4	8.4
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

The most popular choice was “A little” which was chosen by 115 participants. That data is showing that the larger amounts of problem solving are occurring more in second grade than the others. Only 14.9% of the participants are not using problem solving at all to instruct on financial concepts and skills.

I was also interested in what tools were being used as resources for teaching financial literacy. Table 27 gives a breakdown of various resources by grade level categories. Over half of the participants identify that they are using “Children’s literature” (68.3%), “’Play’ money” (79.8%), “Technology” (67.2%), and “Worksheets with pictures” (69.8%). Only 5.3% claimed that they are not using any resources to instruct on financial literacy.

Table 27

Resources Used to Instruct on Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Children’s literature	Count[a]	54	53	61	0	0	4	7	179
	% by resource[b]	30.2	29.6	34.1	0.0	0.0	2.2	3.9	100
	% by grade category[c]	67.5	62.4	82.4	0.0	0.0	66.7	53.8	68.3
Coin rubber stamps and ink	Count	19	20	28	0	0	3	5	75
	% by resource	25.3	26.7	37.3	0.0	0.0	4.0	6.7	100
	% by grade category	23.8	23.5	37.8	0.0	0.0	50.0	38.5	28.6
“Play” money	Count	52	68	72	1	0	4	12	209
	% by resource	24.9	32.5	34.4	0.5	0.0	1.9	5.7	100
	% by grade category	65.0	80.0	97.3	33.3	0.0	66.7	92.3	79.8
“Real” money	Count	30	31	35	0	0	3	7	106
	% by resource	28.3	29.2	33.0	0.0	0.0	2.8	6.6	100
	% by grade category	37.5	36.5	47.3	0.0	0.0	50.0	53.8	40.5

Table 27 (Continued)

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Technology	Count	48	53	63	0	0	4	8	176
	% by resource	27.3	30.1	35.8	0.0	0.0	2.3	4.5	100
	% by grade category	60.0	62.4	85.1	0.0	0.0	66.7	61.5	67.2
Worksheets with pictures	Count	43	58	67	1	0	4	10	183
	% by resource	23.5	31.7	36.6	0.5	0.0	2.2	5.5	100
	% by grade category	53.8	68.2	90.5	33.3	0.0	66.7	76.9	69.8
None	Count	6	2	1	2	0	2	1	14
	% by resource	42.9	14.3	7.1	14.3	0.0	14.3	7.1	100
	% by grade category	7.5	2.4	1.4	66.7	0.0	33.3	7.7	5.3
Other	Count	6	3	7	0	1	0	0	17
	% by resource	35.3	17.6	41.2	0.0	5.9	0.0	0.0	100
	% by grade category	7.5	3.5	9.5	0.0	100	0.0	0.0	6.5

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each resource as broken down by grade category. [b]The percent by resource is the count for each resource divided by the total count for that resource. [c]The percent by grade category is the count for each resource divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Because of technology playing such an important role in education, the technology questions were asked as separate items from the other resources listed. Table 28 and 29 give the results of survey items 26 and 27 which referenced incorporating technology into the teaching of financial literacy.

The data show that teachers are using technology in their classroom to help teach financial literacy concepts and skills. Of the participants surveyed, 89.3% of the K–2 teachers use at least a little technology to aid in instruction. Over half of the participants surveyed are using “Computers” (56.5%), “SMART boards” (67.2%), and “Videos”

(51.5%). The majority of those that chose "Other" (11.8%) indicated that they did not use technology at all while instructing in financial literacy which is consistent with the 10.7% that chose "None at all" in item number 24.

Table 28

Teachers' Perceptions of the Types of Technology Used for Teaching Financial Skills and Concepts in the Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Calculator	Count[a]	11	11	24	0	0	2	5	53
	% by perception[b]	20.8	20.8	45.3	0.0	0.0	3.8	9.4	100
	% by grade category[c]	13.8	12.9	32.4	0.0	0.0	33.3	38.5	18.2
Computer	Count	34	44	58	1	0	3	8	148
	% by perception	23.0	29.7	39.2	0.7	0.0	2.0	5.4	100
	% by grade category	42.5	51.8	78.4	33.3	0.0	50.0	61.5	56.5
iPad	Count	29	26	27	0	0	2	4	88
	% by perception	33.0	29.5	30.7	0.0	0.0	2.3	4.5	100
	% by grade category	36.3	30.6	36.5	0.0	0.0	33.3	30.8	33.6
SMART board	Count	46	55	64	0	0	3	8	176
	% by perception	26.1	31.3	36.4	0.0	0.0	1.7	4.5	100
	% by grade category	57.5	64.7	86.5	0.0	0.0	50.0	61.5	67.2
Videos	Count	33	41	53	0	0	3	5	135
	% by perception	24.4	30.4	39.3	0.0	0.0	2.2	3.4	100
	% by grade category	41.3	48.2	71.6	0.0	0.0	50.0	38.5	51.5
Other	Count	15	6	1	2	1	2	4	31
	% by perception	48.4	19.4	3.2	6.5	3.2	6.5	12.9	100
	% by grade category	18.8	7.1	1.4	66.7	100	33.3	30.8	11.8

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Table 29
Teachers' Perceptions of How Often Technology Is Used for Teaching Financial Skills and Concepts in the Classroom

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
None at all	Count[a]	13	6	1	2	1	2	3	1
	% by perception[b]	46.4	21.4	3.6	7.1	3.6	7.1	10.7	3.6
	% by grade category[c]	16.3	7.1	1.4	66.7	100	33.3	23.1	1.4
	% of Total[d]	5.0	2.3	0.4	0.8	0.4	0.8	1.1	0.4
A little	Count	29	34	20	1	0	1	2	20
	% by perception	33.3	39.1	23.0	1.1	0.0	1.1	2.3	23.0
	% by grade category	36.3	40.0	27.0	33.3	0.0	16.7	15.4	27.0
	% of Total	11.1	13.0	7.6	0.4	0.0	0.4	0.8	7.6
A moderate amount	Count	27	27	31	0	0	3	5	31
	% by perception	29.0	29.0	33.3	0.0	0.0	3.2	5.4	33.3
	% by grade category	33.8	31.8	41.9	0.0	0.0	50.0	38.5	41.9
	% of Total	10.3	10.3	11.8	0.0	0.0	1.1	1.9	11.8
A great deal	Count	11	18	22	0	0	0	3	22
	% by perception	20.4	33.3	40.7	0.0	0.0	0.0	5.6	40.7
	% by grade category	13.8	21.2	29.7	0.0	0.0	0.0	23.1	20.6
	% of Total	4.2	6.9	8.4	0.0	0.0	0.0	1.1	20.6
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100.0	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

Challenges to teaching financial literacy. Though teachers value the importance of teaching financial literacy, they can encounter some issues in doing so. Table 30 illustrates challenges teachers face when instructing on financial literacy.

Of the challenges listed, “Not enough time” (33.6%), “No standards in grade level” (35.1%), “Student cognitive ability” (35.5%), and “Variation of images on coins” (35.9%) are presenting the most issues for teachings when instructing on financial literacy.

Table 30

Teachers’ Perceptions of Challenges for Teaching Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Does not apply to grade level	Count[a]	31	23	4	1	0	2	2	63
	% by perception[b]	49.2	36.5	6.3	1.6	0.0	3.2	3.2	100
	% by grade category[c]	38.8	27.1	5.4	33.3	0.0	33.3	15.4	23.7
English is not students’ first language	Count	6	6	10	0	0	4	2	25
	% by perception	24.0	24.0	40.0	0.0	0.0	4.0	8.0	100
	% by grade category	7.5	7.1	13.5	0.03	0.0	16.7	15.4	9.5
Lack of community support	Count	1	0	4	0	0	0	1	6
	% by perception	16.7	0.0	66.7	0.0	0.0	0.0	16.7	100
	% by grade category	1.3	0.0	5.4	0.0	0.0	0.0	7.7	2.3
Not enough resources	Count	14	15	15	0	0	0	3	47
	% by perception	29.8	31.9	31.9	0.0	0.0	0.0	6.4	100
	% by grade category	17.5	17.6	20.3	0.0	0.0	0.0	23.1	17.9
Not enough time	Count	18	37	27	0	0	2	4	88
	% by perception	20.5	42.0	30.7	0.0	0.0	2.3	4.5	100
	% by grade category	22.5	43.5	36.5	0.0	0.0	33.3	30.8	33.6

Table 30 (continued)

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
No standards in grade level	Count	43	42	3	1	0	1	2	92
	% by perception	46.7	45.7	3.3	1.1	0.0	1.1	2.2	100
	% by grade category	53.8	49.4	4.1	33.3	0.0	16.7	15.4	35.1
Standards are unclear	Count	3	3	4	0	0	0	1	11
	% by perception	27.3	27.3	36.4	0.0	0.0	0.0	9.1	100
	% by grade category	3.8	3.8	5.4	0.0	0.0	0.0	7.7	4.2
Student cognitive ability	Count	25	18	39	1	0	4	6	93
	% by perception	26.9	19.4	41.9	1.1	0.0	4.3	6.5	100
	% by grade category	31.3	22.5	52.7	33.3	0.0	66.7	46.2	35.5
Variation of images on coins	Count	12	27	48	0	0	3	4	94
	% by perception	12.8	28.7	51.1	0.0	0.0	3.2	4.3	100
	% by grade	15.0	33.8	64.9	0.0	0.0	100	30.8	35.9
Other	Count	1	12	7	1	1	0	3	25
	% by perception	4.0	48.0	28.0	4.0	4.0	0.0	12.0	100
	% by grade category	1.3	14.1	9.5	33.3	100	0.0	23.1	9.5

Note. Participants were asked to choose all that applied. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total number of participants per grade category: *n*(K)=80, *n*(1)=85, *n*(2)=74, *n*(K, 1)=3, *n*(K, 2)=1, *n*(1,2)=6, *n*(K, 1, 2)=13, and *n*(Total)=262.

Validity

As part of my external validity in Phase 2, I was able to generalize these results based on the sample being representative of K–2 public school teachers in Ohio. This is based on the demographic information that was collected to ensure that the sample was diverse and that not one demographic was overly dominate. I also went back to the Phase 1 participants with the results of the survey to see if they believed the data that was collected was a fair generalization of the perceptions of K–2 teachers across Ohio

regarding financial literacy. Cresswell and Plano Clark (2011) encourage this approach by writing that a method to validating data collection is to "ask others to examine the data" (p. 212).

Overall, Phase 1 participants found the data to be accurate and representative of K–2 teachers in Ohio regarding financial literacy. While some pointed out particular data pieces that they found interesting, nothing struck them as erroneous or inconceivable.

I also checked for convergent validation by triangulating the data with both a qualitative interview component as well as a qualitative survey instrument. By including and analyzing both aspects of research and then going back to the initial participants for validation, I was able to lessen the potential of sampling bias and better able to generalize the data amid Ohio K–2 public school teachers.

Chapter 5: Summary, Conclusions, and Recommendations

The data show that teachers perceive the teaching of financial literacy in K–Grade 2 as important, but with the lack of knowledge of the *National Standards in K–12 Personal Finance Education* that were created by the Jump$tart Coalition, what is the foundation for this conclusion? I believe that some of these perceptions come from the fact that financial literacy is a life skill and one that cannot be ignored. The literature showed that high school age students are struggling with financial concepts and skills, thus being unprepared to enter society as financially literate adults (NASBE, 2006). By beginning the discussion early in students' educational careers, we can build a groundwork for a successful progression through learning these concepts and skills, and establish the foundation for creating a more financially literate future.

Summary of Findings

Phase 1: Interviews. Phase 1 of the study gave me the opportunity to have a discussion with a small number of K–2 teachers about their perceptions regarding teaching financial literacy at their respective grade levels. The themes which surfaced from those interviews narrowed my focus to examine what, when, and how financial literacy is being taught and if this enacted curriculum aligns with standards set forth by the country, state, or district. The data show that teachers see the value in teaching money concepts and skills in kindergarten through second grade, but are unsure on what exactly is required in terms of standards and expectations.

Professional development for teaching financial literacy. This uncertainty does not come as a surprise being that the majority of these teachers have had little to no instruction in finance or economics in either their undergraduate or graduate education

experiences. They also cannot remember being taught the methods for instructing on financial literacy or being told the importance of making connections to money when modeling mathematics.

Students' prior knowledge of financial literacy concepts. The teachers interviewed agreed that most of the students obtained their prior knowledge and skills regarding financial literacy from the home environment. Many mentioned allowances and real life experiences as means for introducing students to the world of finances and that money skills and concepts were frequently taught by parents, if taught at all. The common belief was that for most students, prior knowledge was minimal. Second grade teachers saw more familiarity than kindergarten, mainly due to preceding grade levels and additional life experience.

Student cognitive readiness to understand financial literacy. The bulk of the teachers do, however, believe their students have the cognitive capacity to understand the basics of financial literacy and that by starting the discussions early in the children's educational careers, they will be more apt to understand the more difficult concepts when their cognitive abilities have strengthened over time. Students at this level are developmentally concrete, so relating the concepts to their lives and using physical manipulatives will aid in creating a lasting understanding that can be built upon in future grade levels.

Teachers' beliefs regarding the value of teaching financial literacy. Because of the students' prior knowledge and experience and because of teachers' beliefs that students have the capacity to learn the basics of financial literacy in kindergarten through second grade, teachers see value in the importance of instructing on these concepts and

skills. A couple of the participants reflected on their own encounters with financial issues and that of their children. They commented that if they had more education in how to manage finances, they might not have had the difficulties with credit and debt that occurred early on in their life.

The teachers saw value in beginning this instruction early in school. Though the teachers were not well aware of any financial literacy standards set forth by the state or nation, one of the three buildings did have standards in place by the district. These standards signified to the teachers that their district also valued the instruction in money concepts and skills and regardless of the Common Core, it would be an expectation for inclusion into the curriculum.

What financial literacy content is taught. When asked about this enacted curriculum, the participants mentioned specific money skills such as coin identification, sorting by attribute, making change, exchanging coins and bills for the same value, and counting a collection of coins. Financial concepts such as credit, debt, loans, and saving were also referred to but only in the basic form.

Teachers referred to standards from both the Common Core as well as Ohio's Learning Standards in both mathematics and social studies. As the teachers reflected on their practices, they came to the realization that financial literacy was more than just memorizing mathematics skills. Needs and wants, spending and saving, and jobs and careers all came up as other areas that needed to be explored when discussing financial literacy. Teaching money concepts and skills was seen as cross-curricular content that could be heavily based on real life experiences.

When financial literacy content is taught. Because of the application to real life, financial literacy content was mentioned as being taught throughout the year, popping up sometimes when not planned. Specific times such as calendar time, behavior systems, and around President's Day were all common as to when teachers incorporated money concepts and skills into their curriculum. An emphasis was placed on integrating the topic into the current curriculum rather than making it a separate entity that needed to be addressed and assessed alone.

How financial literacy content is taught. A suggestion for how this assimilation can occur is to teach money when instructing on skip counting. Using coins to model mathematics is a way to show students that they will be using these skills in everyday life. Using mathematics to model financial literacy is a great way to practice computation and calculations yet gain a deeper understanding for the importance of how knowing, or not knowing, these skills can positively or negatively affect your way of life.

Manipulatives and tools used for teaching financial literacy. Since these concepts and skills can be quite abstract for the young mind, the teachers recommended using concreate manipulatives and tools as much as possible during instruction. These manipulatives included "play" money, "real" money, rubber stamps and ink, children's literature, and worksheets. Though worksheets were mentioned by many, the overall consensus was that the more students touched and handled the money, the more they would make lasting connections and construct knowledge that they could build upon as the concepts grew more difficult.

Technology used for teaching financial literacy. Technology was also used in several classrooms to aid in instruction on money concepts and skills. All of the teachers

interviewed use SMART boards with money slides where students can count and move virtual coins. Many participants also referenced the program IXL Math which can be customizable to meet the individual needs of the students as well as iPads where students could use appropriate applications to practice their skills.

Assessment of financial literacy content and skills. Assessment was discussed as more performance-based through observation or one-on-one demonstration. The participants claimed to not assess as frequently on money concepts and skills with reasons including content not appropriate for grade level and unclear expectations of standards. They were, however, aware of their students' prior knowledge and cognitive abilities through informal observation and interaction during activities such as school stores, centers, or group work.

Challenges for teaching financial literacy. As with any difficult concept, there can be challenges to teaching financial literacy in kindergarten through second grade. Some of the challenges that surfaced included, unclear standards, variation of coin images, time, cognitive readiness, and English as a second language. Because of these challenges, teachers have had to get creative in their lesson planning, instruction, and materials implemented. Many participants required students to bring in "real" money or the teachers supply visuals, themselves, for their classroom. They declared that the most important aspect to overcoming these challenges is to try to make the experiences and activities as life-like as possible.

Phase 2: Online Survey. Phase 2 included taking the findings from Phase 1 and creating a survey to determine if these results could be generalized to a wider population

throughout Ohio. The participants consisted of 262 kindergarten through second grade teachers. This created a much larger sample of Ohio K–2 teachers than that in Phase 1.

The survey contained 37 questions, most which were based on a Likert scale format. Other structures included multiple choice, as well as short answer. The data was analyzed according to its ability to answer the five research questions and descriptive statistics were provided.

Research Question 1: What are teachers' perceptions of students' prior experience, knowledge, and skills regarding financial literacy? The first research question addressed teachers' perceptions of their students' prior experience, knowledge, and skills regarding financial literacy. Two specific items on the survey pertained to this question and the data reveal that about half of the K–2 teachers in Ohio believed that their students came to them with no previous knowledge or experience with financial concepts. The other half felt that the students came with a little, but no one thought their students were entering with a moderate amount. When asked where teachers perceive they gained this prior knowledge, the majority claimed that the experience came from the home environment or society.

Research Question 2: What are teachers' perceptions of students' cognitive readiness to develop knowledge and skill regarding financial literacy? The second research question was asking teachers' perceptions of students' cognitive readiness to develop knowledge and skill regarding financial literacy. Four items on the survey were relevant to this question and all were formatted in a Likert-based scale. The data show that the majority of the teachers felt that K–2 students were slightly likely to be cognitively ready to understand grade-level financial concepts. They also believed that

financial skills, such as coin identification, sorting, and counting were extremely appropriate for this age. More participants believed financial concepts, such as saving, loans, and debt were not as appropriate at these levels than those that felt their students were cognitively ready to handle such content. Overall, the teachers perceived that their students would leave their classroom with a basic understanding regarding financial literacy by the end of the school year.

Research Question 3: What are teachers' perceptions of the importance of teaching financial literacy in kindergarten through Grade 2? The third research question investigated the teachers' perception of the importance of teaching financial literacy in kindergarten through second grade. With four choices ranging from "Not important at all" to "Very important," the bulk of the teachers sampled found some value in instructing on money concepts and skills at this level.

Research Question 4: How knowledgeable are teachers regarding financial literacy standards and what are their perceptions for future implementation? The fourth research question explored how knowledgeable teachers are regarding financial literacy standards. Unfortunately, the findings for this question aligned with the data from Phase 1, that the teachers either are not familiar at all or are only slightly familiar with the *National Standards in K–12 Personal Finance Education* as written by the Jump$tart Coalition. Only 14 of the 262 participants surveyed had even heard of these standards. This finding could be the result that only about half of the teachers had taken any college courses in economics or finance and that almost all had little to no exposure to financial literacy content related to K–12 education in their own academic experience or pre-service course work.

Even with the recent emphasis placed on making our students more financially literate in the future, only 22% of those surveyed have had any in-service professional development on teaching financial literacy after they began their teaching career. This data show that not only have the teachers not been properly trained in instructing on money concepts and skills, but that they still are not receiving expert coaching now that they are active in the field.

Another concerning statistic from the data is that there is confusion on what the actual requirements are for teaching money concepts and skills at the kindergarten, first, and second grade level. About 75% of the kindergarten teachers, 60% of the first grade teachers, and 33% of the second grade teachers claim financial education instruction is not required for the grade level they teach. Every participant is currently teaching in a K–2 classroom in Ohio, yet they possess diverse perceptions and opinions of what content is supposed to be taught.

When asked what standards shape the curriculum that is required to teach regarding financial literacy, the most popular answer was the Common Core State Standards for Mathematics (CCSSM) with almost 50%. This statistic did not seem unreasonable, however less than 30% of the same teachers surveyed designated that Ohio's Learning Standards for Mathematics (OLSM) also played a role. Currently in Ohio, the Ohio Learning Standards come directly from the CCSSM. It is unclear whether teachers realize that the Ohio Learning Standards are indeed the Common Core State Standards for Mathematics, or that there is confusion amongst the teachers on the actual requirement for content.

Research Question 5: How do the perceptions addressed in questions 1–4 influence the planning and instruction of financial literacy standards? The last research question explored how the teachers' perceptions on the first four research questions influenced the planning and instruction of financial literacy standards. I was looking for what, when, and how teachers taught money concepts and skills as well as the manipulatives or tools used in doing so. There were numerous items on the survey relating to this research question.

The first two questions pertaining to planning and instruction address what skills and concepts the participants were teaching in their classrooms. They were given a list and asked to choose as many skills or concepts that applied, as well as given the opportunity to complete a write-in. Almost all of the teachers saw coin identification and counting as skills that are taught in kindergarten through second grade. Other skills that were notable, were sorting by attribute and exchanging coins and bills for the same value. Though making change was chosen as a skill implemented, this response mainly came from second grade teacher participants.

The financial concepts listed were not as often chosen as the skills. There were only two of the eight concepts listed that displayed around 50% of the teachers addressing them in the classroom. Saving and spending were the only concepts worth noting, and once again, these choices were mostly preferred by second grade teachers.

The participants were also asked when, or how often they taught money concepts and skills in their classroom. The data vary quite a bit on this question among responses as well as grade levels. Only a small percentage claimed to never instruct on financial

literacy, and most indicated that they do so periodically throughout the year, rather than more regularly.

When asked how teachers are instructing on financial concepts, many participants marked that they used more than one strategy. More than half of the teachers use calendar, centers, games, and worksheets as ways to convey the information. Technology also played a key role with over half claiming the use of the computer, SMART board, and videos when instructing.

Fundraising could be used as a tool to help children better understand not only mathematical skills using money, but financial concepts that might be more abstract to the younger student. However, teachers would have to assess whether or not it would be appropriate, given their students' and communities' views of fundraising.

Triangulation

When considering the results from Phase 1 and comparing them to the results of Phase 2, I found that K–2 teachers across Ohio share similar perceptions on the importance of teaching financial literacy. The teachers believe instructing on money concepts and skills is pertinent and appropriate in kindergarten, first, and second grade. The main difference of opinion seems to lie in what, when, and how these concepts and skills are introduced and taught. This is not surprising being that there seems to be inconsistencies between the alignment of the Common Core and the Jump$tart standards. While some of the concepts and skills overlap, there does not seem to be a clear continuum on what exactly should be taught and when.

Teaching financial literacy at the K–2 level is a fairly new area of exploration. There is not an abundance of literature pertaining to best practices in financial literacy at

the primary level, but through past research studies and literature relating to child development, as well as the data from Phase 1 and Phase 2 of this study, I believe that financial literacy is a topic that needs to be acknowledged and placed on the radar of K–2 teachers.

Recommendations for Future Practice

It is time for educators to reflect on how they teach financial literacy in all grade levels. As an educational community, we are responsible for teaching our students the skills they need to be productive, contributing members of society. Educational leaders need to look closely at the Jump$tart standards, Common Core standards across all content areas, and other research-based sources related to financial literacy. The piece that seems to be missing in the content area is a cohesiveness between the literature, thus a disjointed curriculum, confused teachers, and lack of material. The result is that financial literacy tends to be neglected until high school.

My first recommendation would be for K–2 educators to be better prepared to teach financial concepts and skills in the classroom. They understand the content, but need to be provided guidance on how to incorporate financial literacy into their everyday curriculum. This can be accomplished by first looking at preservice programs and how beginning teachers are being taught to integrate financial literacy. As the world is continually changing, so must our instruction methods and practices. Teachers must be provided opportunities for in-service professional development on financial literacy and ways they can successfully merge the developmentally appropriate content into that which they are already teaching.

In order to accomplish successful integration into the curriculum, more curriculum materials must be created that align with the Common Core curriculum, state standards for teaching mathematics, social studies, and language arts, as well as the Jump$tart national financial literacy standards. Books such as the *On the Money* series published by NCTM give educators ideas, as well as guidance, on how to introduce and implement financial concepts and skills in Grades 6–8, and Grades 9–12. Because of my passion for this topic and my belief that it is part of my responsibility as an educator to contribute, I have created a proposal for NCTM to co-author a book titled *On the Money: Kindergarten Through Grade 5.* This book will contain grade level, developmentally appropriate activities to give teachers best practice examples on how they can incorporate financial literacy into their classrooms. One of the items on the survey addressed teachers' interest in such materials. I asked the teachers' willingness to use materials and activities developed for various grade levels on financial literacy with the results displayed in Appendix I.

Although my dissertation study did not explicitly focus on the kinds of financial literacy concepts that should be included at each grade level, it is evident that there is no coherent system in which children are being exposed to and supported when learning about financial literacy. For example, if children are expected to "Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately" in the 2nd grade CCSSM (2010) standards, then there is a need to prepare children in earlier grades using developmentally appropriate scaffolding. An example of this support would be to instruct in the earlier grades on sorting items using coins as a way to develop money skills.

Financial literacy needs to be on the radar of primary elementary teachers as important and able to be easily included in their already enacted curriculum. This is not an additional content area, but rather a real world application for modeling the mathematics already occurring in the classroom. By providing teachers with proper trainings and material, they will experience how easily financial literacy can be highlighted in the curriculum and that by doing so at a young age, they are setting the students up for future success as financially literate adults.

Recommendations for Future Research

There is a world of possibilities for research on financial literacy in the primary elementary grades. This topic is still uncharted waters, and I plan to continue to explore the content, as well as advocate for starting financial literacy early in educational careers.

One area that I intend to examine further is connections between typology, teachers' values, and the enacted curriculum. Although I have data to begin this research, there were so many descriptive statistics to analyze, that I decided to focus strictly on exploring what, when, and how financial literacy is being taught in the classroom and teachers' beliefs in general regarding teaching money concepts and skills in kindergarten through second grade.

Another area of further research would be on teacher's preparation and professional development regarding financial literacy. I believe it would be helpful to know exactly what pre-service teachers are learning about financial literacy, and what skills they possess to be able to instruct on it fluently. I also think it would be interesting to examine whether teachers are receiving training after they begin their career. Research needs to be conducted on what opportunities are available for teachers of all grade levels

to better prepare themselves for instructing on financial literacy, thus improving student achievement. We as teachers must be financially literate adults to set examples for our youth and provide them with positive experiences and guidance.

This study addressed the *what*, *when*, and *how* of financial literacy instruction in Kindergarten through Grade 2, but I anticipate further exploring the why question. I am inquisitive as to why teachers choose their intended curriculum and instruction and what the underlying motives or factors are for teachers to have such perceptions. Through exploration of teachers' opinions on why they do what they do regarding the teaching of financial literacy, I can gain a better understanding of where their perceptions might have originated and how they have evolved.

Conclusion

This study began as an exploration into a content area in education, but turned into a deep and meaningful examination of teachers' perceptions and values on teaching financial literacy. I purposely chose primary teachers as my participants because financial literacy is not frequently thought of as an age-appropriate subject for this grade band. According to the literature on child development and developmentally appropriate practices, children in kindergarten through second grade have the cognitive capacity to understand basic financial concepts and begin to perform financial skills that will build the foundation for a better understanding as they continue to mature.

The data from both phases of this study confirm that K–2 teachers value the teaching of money concepts and skills, but due to some challenges, are not consistently incorporating them into the classroom. The challenges in this study include unclear standards, outdated materials, variances of coin images, and lack of technology. The

teachers are overcoming many of these challenges, however, and are providing their students with real-life applicable experiences including rich discussion regarding financial literacy, school stores, and centers. Teachers in this study stressed the importance of relating the money concepts and skills to the children's lives. Having the students manipulate "real" money in life-like situations gives them the opportunity not only to learn about financial literacy but also to experience it firsthand.

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Appendix A: Typology & Median Income

Table A.1

Typology Category Assigned to Participants' Districts as Determined by Participants Based on the Ohio Department of Education in 2013

Major Grouping*	Full Descriptor*	Districts within Typology*	Participants Within Typology
Rural	Rural - High Student Poverty & Small Student Population	124	42
Rural	Rural - Average Student Poverty & Very Small Student Population	107	29
Small Town	Small Town - Low Student Poverty & Small Student Population	111	26
Small Town	Small Town - High Student Poverty & Average Student Population Size	89	46
Suburban	Suburban - Low Student Poverty & Average Student Population Size	77	50
Suburban	Suburban - Very Low Student Poverty & Large Student Population	46	30
Urban	Urban - High Student Poverty & Average Student Population	47	18
Urban	Urban - Very High Student Poverty & Very Large Student Population	8	17

**Note.* Data taken from the Ohio Department of Education website. Retrieved from http://education.ohio.gov/Topics/Data/Report-Card-Resources/Ohio-Report-Cards/Typology-of-Ohio-School-Districts. Of the 262 participants in the survey, 4 chose "Not applicable."

Table A.2

Median Income Range Assigned to the District as Determined by Participants Based on the Ohio Department of Education (2013)

Income Range	Number of Participants	Percent of Participants
$0–$27,590	59	22.5
$27,591–$30,260	38	14.5
$30,261–$32,950	59	22.5
$32,951–$36,740	18	6.9
$36,741 or more	84	32.1
Not applicable	4	1.5

Appendix B: Sample Email for Potential Recruitment Phase 1

Dear (Name),

My name is Lindsay Gold and my triplets–Evelyn, Jocelyn, and Madelyn–are currently in Grade 3 at Broadway Elementary School. I am a doctoral student at Ohio University and conducting research regarding teachers' perceptions and methods used for teaching financial literacy in K–Grade 2 and would appreciate your participation. For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. Once you have read this email, if you are interested, please contact me as soon as possible to schedule an interview time. Interviews will be held between now and January 29th either before or after school, or another time convenient for you. The interview will last no more than one hour and can be done at your elementary school or conducted at your preferred location.

Explanation of Study

The purpose of this study is to examine teachers' perceptions regarding students' prior experience with financial concepts and skills, their perceptions of their students' cognitive readiness to develop financial concepts and skills, and the teachers' own perceptions on the importance of teaching financial concepts and skills at the primary grades.

For this study, the term *financial literacy* will be based upon the definition of a financially literature person. A *financially literate person* is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). *Financial knowledge and skills* are that which kindergarten through Grade 2 students need to achieve as stated by standards found in the *Ohio's New Learning Standards: Social Studies Standards* (*ONLS: SSS*), the *Common Core State Standards for Mathematics*, and the *National Standards in K–12 Personal Finance Education*. These standards represent necessary financial concepts and skills such as the identifying of coins and bills, counting collections of money, making change, vocabulary such as borrowing and credit, and general financial understandings of the process of spending and saving. The researcher finds these definitions as more applicable and inclusive to the average citizen.

Alhammouri, A., Foley, G. D., Ashurst, J. M. (2015, October). *Financial modeling for high school students*. Workshop presented at the meeting of the Ohio Council of Teachers of Mathematics, Cincinnati, OH.

If you agree to participate, you will be asked a series of questions regarding financial literacy and the instruction of money concepts in your classroom.
Your participation in the study will last approximately 1 hour.

Risks and Discomforts
No risks or discomforts are anticipated in this study.

Benefits
This study is important to society because results will be analyzed and reported with the goal of benefitting educators through the sharing of ideas and knowledge regarding best practices in instructing on financial literacy concepts and skills. You will have the satisfaction of contributing your ideas and perspectives to research in a growing field of interest in primary education.

Confidentiality and Records
Your study information will be kept confidential by the researcher. All data will be kept on the primary researcher's password protected computer.
Participants must be 18 years or older of age and currently teaching in Kindergarten through Grade 2 at the time of the study.

Thank you for considering participating in my research study!

Sincerely,
Lindsay A. Gold

Appendix C: Sample Email for Potential Recruitment Phase 2

Dear Principal <<last_name>>,

My name is Lindsay Gold. I am a doctoral student at Ohio University. I am conducting research regarding teachers' perceptions and methods used for teaching financial literacy in K–Grade 2 and would appreciate your building's participation in a survey. For you to be able to decide whether you want to contribute to this project, you should understand what the study is about, as well as the possible risks and benefits in order to make an informed decision. Once you have read this email, if you consent to your school's participation, please forward this email containing important information to all K–2 teachers in your building.

K–2 teachers: Please fill out the survey by clicking on the link https://ohio.qualtrics.com/SE/?SID=SV_2cneKhE8aUWJjXn or copying and pasting the link into your browser. I am asking you to please submit the survey by **no later than April 10, 2016**. Participants that submit a completed survey by **March 20th** may choose to be entered in a drawing to win a $100 gift card. Surveys completed and submitted between **March 20th and April 3rd** can to be entered to win a $50 gift card. Finally, those participants that complete and submit a survey between **April 3rd and April 10th** may choose to be entered to win a $25 gift card that will be mailed to the address you provide on your completed survey. The non-winning surveys from the $100 drawing will be included in the $50 and $25 drawings as well, so submit the completed survey as soon as possible.

Explanation of Study
The purpose of this study is to examine teachers' perceptions regarding students' prior experience with financial concepts and skills, their perceptions of their students' cognitive readiness to develop financial concepts and skills, and the teachers' own perceptions on the importance of teaching financial concepts and skills at the primary grades.

For this study, the term *financial literacy* will be based upon the definition of a financially literature person. A *financially literate person* is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). *Financial knowledge and skills* are that which kindergarten through Grade 2 students need to achieve as stated by standards found in the *Ohio's New Learning Standards: Social Studies Standards* (*ONLS: SSS*), the *Common Core State Standards for Mathematics*, and the *National Standards in K–12 Personal Finance Education*. These standards represent necessary financial concepts and skills such as the identifying of coins and bills, counting collections of money, making change, vocabulary such as borrowing and credit, and general financial understandings of the process of spending and saving. The researcher finds these definitions as more applicable and inclusive to the average citizen.

Alhammouri, A., Foley, G. D., & Ashurst, J. M. (2015, October). *Financial modeling for high school students*. Workshop presented at the meeting of the Ohio Council of Teachers of Mathematics, Cincinnati, OH.

If you consent to participate, you will be asked a series of questions regarding financial literacy and the instruction of money concepts in your classroom.

Your participation in the survey should last no longer than ten minutes, but please take your time to provide comprehensive answers.

Risks and Discomforts
No risks or discomforts are anticipated in this study.

Benefits
This study is important to society because results will be analyzed and reported with the goal of benefitting educators through the sharing of ideas and knowledge regarding best practices in instructing on financial literacy concepts and skills. You will have the satisfaction of contributing your ideas and perspectives to research in a growing field of interest in primary education. You may also be entered into a drawing for up to a $100 gift card that will be mailed to the address you provide on your completed survey.

Confidentiality and Records
Your study information will be kept confidential by the researcher. All data will be kept on the primary researcher's password protected computer.

Additionally, while every effort will be made to keep your study-related information confidential, there may be circumstances where this information must be shared with:

* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;
* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU;

Contact Information
If you have any questions regarding this study, please contact the investigator *Lindsay A. Gold, **lg618413@ohio.edu**, 937-554-9986* or the advisor *Dr. Gregory D. Foley,* **foleyg@ohio.edu**, **(740)593-4430.**

If you have any questions regarding your rights as a research participant, please contact Dr. Chris Hayhow, Director of Research Compliance, Ohio University, (740)593-0664 or hayhow@ohio.edu.

By agreeing to participate in this study, you are agreeing that:

- you have read this consent form (or it has been read to you) and have been given the opportunity to ask questions and have them answered;
- you have been informed of potential risks and they have been explained to your satisfaction;
- you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study;
- you are 18 years of age or older;
- your participation in this research is completely voluntary;
- you may leave the study at any time; if you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.

Thank you for considering participating in my research study!

Sincerely,
Lindsay A. Gold

Appendix D: Signed Consent Form for Phase 1

You are being asked to participate in research. For you to be able to decide whether you want to participate in this project, you should understand what the project is about, as well as the possible risks and benefits in order to make an informed decision. This process is known as informed consent. This form describes the purpose, procedures, possible benefits, and risks. It also explains how your personal information will be used and protected. Once you have read this form and your questions about the study are answered, you will be asked to sign it. This will allow your participation in this study. You should receive a copy of this document to take with you.

Explanation of Study

The purpose of this study is to examine teachers' perceptions regarding students' prior experience with financial concepts and skills, their perceptions of their students' cognitive readiness to develop financial concepts and skills, and the teachers' own perceptions on the importance of teaching financial concepts and skills at the primary grades.

For this study, the term *financial literacy* will be based upon the definition of a financially literature person. A *financially literate person* is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). *Financial knowledge and skills* are that which kindergarten through Grade 2 students need to achieve as stated by standards found in the *Ohio's New Learning Standards: Social Studies Standards* (*ONLS: SSS*), the *Common Core State Standards for Mathematics*, and the *National Standards in K–12 Personal Finance Education*. These standards represent necessary financial concepts and skills such as the identifying of coins and bills, counting collections of money, making change, vocabulary such as borrowing and credit, and general financial understandings of the process of spending and saving. The researcher finds these definitions as more applicable and inclusive to the average citizen.

Alhammouri, A., Foley, G. D., Ashurst, J. M. (2015, October). *Financial modeling for high school students*. Workshop presented at the meeting of the Ohio Council of Teachers of Mathematics, Cincinnati, OH.

If you agree to participate, you will be asked a series of questions regarding financial literacy and the instruction of money concepts in your classroom.

Your participation in the interview should last no longer than one hour.

Risks and Discomforts

No risks or discomforts are anticipated in this study.

Benefits

This study is important to society because results will be analyzed and reported with the goal of benefitting educators through the sharing of ideas and knowledge regarding best practices in instructing on financial literacy concepts and skills. You will have the satisfaction of contributing your ideas and perspectives to research in a growing field of interest in primary education.

Confidentiality and Records
Your study information will be kept confidential by the researcher. All data will be kept on the primary researcher's password protected computer.

Additionally, while every effort will be made to keep your study-related information confidential, there may be circumstances where this information must be shared with:

* Federal agencies, for example the Office of Human Research Protections, whose responsibility is to protect human subjects in research;

* Representatives of Ohio University (OU), including the Institutional Review Board, a committee that oversees the research at OU;

Contact Information
If you have any questions regarding this study, please contact the investigator ***Lindsay A. Gold, lg618413@ohio.edu, 937-554-9986*** or the advisor ***Dr. Gregory D. Foley,*** **foleyg@ohio.edu, (740)593-4430.**

If you have any questions regarding your rights as a research participant, please contact Dr. Chris Hayhow, Director of Research Compliance, Ohio University, (740)593-0664 or hayhow@ohio.edu.

By signing below, you are agreeing that:

- you have read this consent form (or it has been read to you) and have been given the opportunity to ask questions and have them answered;
- you have been informed of potential risks and they have been explained to your satisfaction;
- you understand Ohio University has no funds set aside for any injuries you might receive as a result of participating in this study;
- you are 18 years of age or older;
- your participation in this research is completely voluntary;
- you may leave the study at any time; if you decide to stop participating in the study, there will be no penalty to you and you will not lose any benefits to which you are otherwise entitled.

Signature_____ Date_____

Printed Name_____

Appendix E: Pilot Study Instrument Phase 1

1. How long have you been teaching?
2. What is the current grade level you are teaching?
3. What grade levels have you taught previously?
4. On average, how many students are in your classroom?
5. Do you group your students? If so, how?
6. How are the financial literacy standards perceived, as it pertains to impacting your method of teaching?
7. What manipulatives are used when introducing and reinforcing problem solving with money?
8. What previous exposure do you think your students have with money? Was it positive or negative? How do you believe that previous experience has affected their learning?
9. How do you tie instruction of money to other academic content standards?
10. Is financial literacy important to you? Why or why not? If so, how does it drive your instruction?
11. What intervention(s) could be put in place for students struggling with money concepts?
12. When in the school year did you introduce and instruct on money?
13. Is the concept of money introduced as a unit or referenced throughout the academic year?
14. How can we improve our students' financial literacy?
15. Does technology play a role in money concepts? If so, how?
16. In your opinion, what is the most effective method for promoting money concepts and student understanding?
17. What, if any, curriculum is used for teaching money concepts?
18. Do you find a learning difference between male and female students with regards to money concepts?
19. How do you assess your students when problem solving with money? What do you do with the results?
20. Do your students take standardized tests? Are money concepts included?
21. How do you make the abstract concept of money more concrete and applicable to students?
22. What do the Common Core state standards mean to you and how does this drive your instruction?
23. Do you think your students value money?
24. Does your school use standard money or technology in regards to lunch money?
25. How often would you say that your students manipulate money or have exposure to it?
26. What is your personal philosophy on financial education as it pertains to an elementary student?

27. At what age do you believe a child develops a true understanding of money concepts and the value of money? (Not coin value, but actual worth.)
28. What are some activities you use in your classroom to reinforce money concepts?
29. How could schools better prepare students for money management and having an appreciation of its value?
30. Do you think technology has helped reinforce or hindered students' understanding regarding money? Why?
31. Do you believe money concepts are adequately covered in the early elementary years?
32. How familiar are you with the financial literacy standards?
33. Where do you obtain your ideas for lessons regarding financial literacy?
34. Should students be responsible for understanding the value of money at a young age? Why or why not?
35. In your opinion, do students have experiences outside of the classroom to support their learning of financial literacy?
36. What best describes the community you live in (rural, suburban, urban)?
37. How much do you believe your students would agree with this statement: Money is there to be spent?
38. How much do you believe your students would agree with this statement: It is important to save money for the future.
39. What would best describe the socioeconomic status of your district?
40. Do you believe state policy makers see financial literacy as a priority in the grade that you teach?
41. Do you believe the public sees financial literacy as a priority in the grade that you teach?
42. Do you believe the administration in your building sees financial literacy as a priority in the grade that you teach?
43. Do you set measureable goals for your students in financial literacy?
44. Are external partners used to promote and increase financial literacy in your school?
45. Do you have the necessary resources available to you to effectively instruct financial literacy?
46. Are financial literacy content standards integrated into state testing at the grade that you teach?
47. Is financial education instruction required in your building for the grade that you teach?
48. Have you experienced teacher training or professional development on financial literacy?
49. Are you encouraged by your administrator to participate in professional development on financial literacy?

50. What types of assessments are used in your classroom regarding financial literacy?
51. Is financial literacy integrated into any other parts of the curriculum in your classroom?
52. Are there any opportunities provided by the school system for students to engage in financial literacy concepts outside of the classroom?
53. Are initiatives currently implemented to promote financial literacy in the grade that you teach?
54. Are there future plans for initiatives to promote financial literacy in the grade that you teach?
55. How comfortable are you with teaching financial literacy?
56. Do you believe more emphasis should be placed on improving financial literacy at the elementary level?
57. Have you ever used children's literature to reinforce money concepts? If so, what was it?
58. Do you have access to manipulatives in your classroom regarding money concepts?
59. Do you ever use real money in your classroom to teach financial literacy?
60. What is your definition of financial literacy?
61. Which statement best describes where financial literacy should be taught? In an integrated K-12 curriculum. In a standalone high school curriculum. In the middle school and high school curriculum. Not in a school setting.
62. How much classroom time do you spend on financial literacy?
63. What is your personal education background? Did you cover financial literacy in your pre-service coursework?

Appendix F: Implemented Interview Instrument Phase 1

1. How long have you been teaching in Ohio?
2. What is the current grade level you are teaching?
3. What grade levels have you taught previously?
4. On average, how many students do you teach in any given year?
5. What best describes the community in which you teach (rural, suburban, urban)?
6. What would best describe the socioeconomic status of your district?
7. To what extent did you encounter or study financial concepts in your own academic experience or pre-service coursework?
8. Is financial education instruction required in your school for the grade that you teach?
9. What previous knowledge do your students have regarding financial concepts?
    a. How often do your students manipulate money or have exposure to it?
    b. What options are available in your school for students to pay for lunch?
10. What financial concepts do you teach to your students?
11. When do you teach financial concepts in your classroom?
12. Approximately how much classroom time do you spend on financial literacy?
13. How do you teach financial concepts in your classroom?
    a. What, if any, curriculum is used for teaching money concepts?
    b. What activities are used to teach financial concepts?
    c. Where do you find your ideas for these activities?
    d. What manipulatives are used when introducing and reinforcing problem solving with money?
    e. Does technology play a role in your teaching of financial concepts? If so, how?
14. How do you assess your students when problem solving with money? What do you do with the results?
15. What are some challenges that you and your students face in regards to teaching financial concepts?
16. What is your definition of financial literacy?
17. For this study, the term *financial literacy* will be based upon the definition of a financially literate person. A *financially literate person* is "an individual who has developed sufficient levels of (a) financial knowledge and (b) skill in using financial representations, tools, and models in order to function personally, in the family, on the job, and in society" (Alhammouri, Foley, & Ashurst, 2015, slide 7). How does this definition compare to your definition?
18. *Financial knowledge and skill* are that which kindergarten through Grade 2 students need to achieve as stated by standards found in the *Ohio's New Learning Standards: Social Studies Standards* (*ONLS: SSS*), the *Common Core State Standards for Mathematics*, and the *National Standards in K–12 Personal Finance Education*. How familiar are you with any financial literacy standards?
19. Is financial literacy important to you? Why or why not? If so, how does it drive your instruction?

20. What knowledge and skills do you think your students are cognitively ready to develop regarding financial literacy?
21. Have you experienced teacher training or professional development on financial literacy? If so, could you please describe the content of the training?
22. Do you have any suggestions of how K–2 teachers could better prepare their students in financial literacy?
23. What sort of curriculum or instructional materials would you like to see developed to help you better prepare your students in financial literacy?

Appendix G: Implemented Survey Instrument Phase 2

The purpose of this study is to examine teachers' perceptions regarding the teaching of financial concepts and skills at the primary grades.

Your participation in the survey should require about 10 min, but please take your time to provide accurate answers. Be aware that there are no known risks to participating and that the results may possibly benefit educators through the sharing of ideas and knowledge regarding best practices in instructing on financial literacy concepts and skills. Your answers will be kept confidential and the resulting data and research will not be linked to you in any way.
I am asking you to please submit the survey by **no later than April 10, 2016**.
Participants that submit a completed survey by March 20th may choose to be entered in a drawing to win a $100 gift card. Surveys completed and submitted between March 20th and April 3rd can to be entered to win a $50 gift card. Finally, those participants that complete and submit the survey between April 3rd and April 10th may choose to be entered to win a $25 gift card that will be mailed to the address you provide on your finished survey. The non-winning surveys from the $100 drawing will be included in the $50 and $25 drawings as well, so submit the completed survey as soon as possible.

By proceeding with the survey, you are consenting that your participation is voluntary, you are18 years or older of age, and are currently teaching in Kindergarten through Grade 2 at the time of the study. You may quit the survey at any time, but only completed surveys will be entered into the optional drawing.

1. **At the end of the 2015–2016 school year, how long (in years) will you have taught in the state of Ohio?**

   ☐

2. **What is the current grade level that you are teaching? (If teaching a multi-age classroom, please check all that apply.)**

□ Kindergarten
□ Grade 1
□ Grade 2

3. **Aside from your current position, what other grade levels have you taught? (Please check all that apply.)**

□ Preschool (birth to age 5)
□ Kindergarten
□ Grade 1
□ Grade 2
□ Grade 3
□ Grade 4
□ Grade 5
□ Grade 6
□ Grades 7–8
□ Grades 9–1

4. **What is your identified gender?**

5. **Please click here to answer the following question.**

   What is the typology category assigned to your district as determined by the Ohio Department of Education in 2013?

- ○ 1 Rural: High Student Poverty & Small Student Population
- ○ 2 Rural: Average Student Poverty & Very Small Student Population
- ○ 3 Small Town: Low Student Poverty & Small Student Population
- ○ 4 Small Town: High Student Poverty & Average Student Population Size
- ○ 5 Suburban: Low Student Poverty & Average Student Population Size
- ○ 6 Suburban: Very Low Student Poverty & Large Student Population
- ○ 7 Urban: High Student Poverty & Average Student Population
- ○ 8 Urban: Very High Student Poverty & Very Large Student Population
- ○ Not applicable

6. **Please click here to answer the following question.**

   What is the median income range assigned to your district as determined by the Ohio Department of Education in 2013?

- ○ $0–$27,590
- ○ $27,591–$30,260
- ○ $30,261–$32,950
- ○ $32,951–$36,740
- ○ $36,741 or more
- ○ Not applicable

7. **How many college courses have you taken in economics or finance?**

- ○ None
- ○ One
- ○ Two
- ○ More than two

8. To what extent were you exposed to financial literacy content related to K–12 education in your own academic experience or pre-service course work?

○ None at all
○ A little
○ A moderate amount
○ A great deal

9. How much in-service professional development have you received on teaching financial literacy? (Include workshops AFTER you started your teaching career, but NOT college course work.)

○ None at all
○ A little
○ A moderate amount
○ A great deal

10. What is your perception of the amount of prior knowledge your students have regarding financial concepts?

○ None at all
○ A little
○ A moderate amount
○ A great deal

11. What is your perception of where your students obtained their prior knowledge regarding financial concepts? (Please check all that apply.)

□ General society
□ Home environment
□ Prior schooling
□ Other (Please specify in the box below.)

12. Is financial education instruction required for the grade that you teach?

○ Yes.
○ No.
○ I don't know.
○ If you teach more than one grade, please specify for each grade level in the box below.

13. What standards shape the content that is required to teach regarding financial literacy? (Please check all that apply.)

□ None at all.
□ Ohio's Learning Standards for Mathematics
□ Ohio's Learning Standards for Social Studies
□ Standards set forth by school district in mathematics
□ Standards set forth by school district in social studies
□ Common Core State Standards for Mathematics
□ Common Core State Standards for English Language Arts
□ Other (Please specify in the box below.)

14. How likely are your students to be cognitively ready to understand grade-level financial concepts?

○ Extremely unlikely
○ Slightly unlikely
○ Slightly likely
○ Extremely likely

15. In your opinion, how appropriate is it to teach financial skills, such as coin identification, sorting, and counting, at your grade level?

○ Extremely inappropriate
○ Slightly inappropriate
○ Slightly appropriate
○ Extremely appropriate

16. In your opinion, how appropriate is it to teach financial concepts, such as saving, loans, and debt, at your grade level?

○ Extremely inappropriate
○ Slightly inappropriate
○ Slightly appropriate
○ Extremely appropriate

17. What is your perception of the level of understanding your students will have regarding financial literacy by the end of the school year?

○ No understanding
○ Basic understanding
○ More understanding than expected

18. How often do you teach financial concepts in your classroom?

- ○ Daily (at least once a day)
- ○ Weekly (at least once a week, but not every day)
- ○ Monthly (at least once a month, but not every week)
- ○ Yearly (at least once a year, but not month)
- ○ Never

19. How important is it to you to teach financial literacy at your grade level?

- ○ Not important at all
- ○ Slightly important
- ○ Moderately important
- ○ Very important

20. How are financial concepts distributed over time in your classroom? (Please check all that apply.)

- □ Daily
- □ As a separate unit
- □ Periodically throughout the year
- □ Never

21. What financial skills do you teach in your classroom? (Please check all that apply.)

- □ Coin identification
- □ Counting
- □ Exchanging coins and bills for the same value
- □ Making change
- □ Sorting by attribute
- □ Other (Please specify in the box below.)

22. What financial concepts do you teach in your classroom? (Please check all that apply.)

- □ Assets
- □ Debt
- □ Inflation
- □ Interest
- □ Loans
- □ Risk
- □ Saving
- □ Spending
- □ Other (Please specify in the box below.)

23. What are methods that you use to teach financial literacy in your classroom? (Please check all that apply.)

- □ Behavior system
- □ Calendar
- □ Centers
- □ Fundraising
- □ Games
- □ School store
- □ Worksheets
- □ Other (Please specify in the box below.)

24. What best practices do you use that apply to teaching financial literacy in your classroom? (Optional.) (Please specify in the box below.)

25. In which subject area(s) does financial literacy apply? (Please check all that apply.)

- □ Language Arts
- □ Mathematics
- □ Social Studies
- □ Other (Please specify in the box below.)

26. What resources, if any, do you use in your instruction of financial literacy? (Please check all that apply.)

- □ Children's literature
- □ Coin rubber stamps and ink
- □ "Play" money (plastic, paper, or pretend)
- □ "Real" money (actual coins and bills)
- □ Technology
- □ Worksheets with pictures
- □ None
- □ Other (Please specify in the box below.)

27. What types of technology do you use when teaching financial literacy? (Please check all that apply.)

□ Calculator
□ Computer
□ iPad
□ SMART board
□ Videos
□ Other (Please specify in the box below.)

28. How often does technology play a role in your teaching of financial literacy?

○ None at all
○ A little
○ A moderate amount
○ A great deal

29. How often do you use problem solving to teach financial literacy?

○ None at all
○ A little
○ A moderate amount
○ A great deal

30. How do you assess your students regarding financial literacy? (Please check all that apply.)

□ One-on-one
□ Small group
□ Large group
□ I don't assess my students regarding financial literacy.

31. What types of assessments do you use when assessing financial literacy? (Please check all that apply.)

□ Paper and pencil assessment
□ Performance assessment
□ Standardized test (e.g. state screener)
□ Verbal questioning
□ I don't assess my students regarding financial literacy.
□ Other (Please specify in the box below.)

32. What are some challenges that you face in regards to teaching financial literacy? (Please check all that apply.)

□ Does not apply to my grade level
□ English is not the student's first language.
□ Lack of community support
□ Not enough resources
□ Not enough time
□ No standards in my grade level
□ Standards are unclear
□ Student cognitive ability to understand financial concepts
□ Variation of images on coins
□ Other (Please specify in the box below.)

33. How familiar are you with the *National Standards in K–12 Personal Finance Education* that were created by the Jump$tart Coalition?

○ Not familiar at all
○ Slightly familiar
○ Moderately familiar
○ Extremely familiar

34. How willing would you be to use materials and activities developed for your grade level on teaching financial literacy if they were made available to you?

○ Definitely will not
○ Probably will not
○ Might or might not
○ Probably will
○ Definitely will

35. Please provide any additional information on your beliefs regarding the teaching of financial literacy in your classroom in the box below. (Optional.)

36. If you would like to be entered to win a gift card for completing the survey, please provide your name and mailing address in the form below. (Optional.)

Name
Address
Address 2
City
State
Postal code
Email address

37. If you are willing to be contacted for future research regarding financial literacy in Kindergarten through Grade 2, please provide your email address below. (Optional).

Appendix H: Demographics of 262 Online Survey Participants

Other Grade Levels Taught by Participants Aside from Current Position

Grade Level	Number of Participants
Preschool (birth to age 5	67
Kindergarten	87
1	95
2	74
3	77
4	55
5	49
6	36
7 or 8	20
9 through 12	8

Identified Gender

Identified Gender	Number of Participants	Percent of Participants
Female	245	93.5
Male	17	6.5

Number of College Courses Taken by Participants in Economics or Finance

Number of Courses	Number of Participants	Percent of Participants
None	112	42.7
One	80	30.5
Two	46	17.6
More than two	24	9.2

Extent of Exposure to Financial Literacy Content Related to K–12 Education in Academic Experience or Pre-Service Coursework

Number of Courses	Number of Participants	Percent of Participants
None at all	118	45.0
A little	125	47.7
A moderate amount	17	6.5
A great deal	2	0.8

*Amount of In-service Professional Development on Teaching Financial Literacy**

Number of Courses	Number of Participants	Percent of Participants
None at all	204	77.9
A little	52	19.8
A moderate amount	5	1.9
A great deal	1	0.4

Note: In-service professional development includes workshops AFTER the start of their teaching career, but NOT college course work.

Appendix I: Teachers' Willingness Data

Teachers' Willingness to Use Grade Level Appropriate Materials and Activities Developed for Financial Literacy

Response		K	1	2	K, 1	K, 2	1, 2	K, 1, 2	Total
Definitely will not	Count[a]	2	0	1	0	0	0	0	3
	% by perception[b]	66.7	0.0	33.3	0.0	0.0	0.0	0.0	100
	% by grade category[c]	2.5	0.0	1.4	0.0	0.0	0.0	0.0	1.1
	% of Total[d]	0.8	0.0	0.4	0.0	0.0	0.0	0.0	1.1
Probably will not	Count	3	2	1	0	1	1	0	8
	% by perception	37.5	25.0	12.5	0.0	12.5	12.5	0.0	100
	% by grade category	3.8	2.4	1.4	0.0	100	16.7	0.0	3.1
	% of Total	1.1	0.8	0.4	0.0	0.4	0.4	0.0	3.1
Might or might not	Count	30	33	20	2	0	2	5	92
	% by perception	32.6	35.9	21.7	2.2	0.0	2.2	5.4	100
	% by grade category	37.5	38.8	27.0	66.7	0.0	33.3	38.5	35.1
	% of Total	11.5	12.6	7.6	0.8	0.0	0.8	1.9	35.1
Probably will	Count	23	32	34	1	0	1	5	96
	% by perception	24.0	33.3	35.4	1.0	0.0	1.0	5.2	100
	% by grade category	28.7	37.6	45.9	33.3	0.0	16.7	38.5	36.6
	% of Total	8.8	12.2	13.0	0.4	0.0	0.4	1.9	36.6
Definitely will	Count	22	18	18	0	0	2	3	63
	% by perception	34.9	28.6	28.6	0.0	0.0	3.2	4.8	100
	% by grade category	27.5	21.2	24.3	0.0	0.0	33.3	23.1	24.0
	% of Total	8.4	6.9	6.9	0.0	0.0	0.8	1.1	24.0
Total	Count	80	85	74	3	1	6	13	262
	% by perception	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100
	% by grade category	100	100	100	100	100	100	100	100
	% of Total	30.5	32.4	28.2	1.1	0.4	2.3	5.0	100

Note. [a]The count is the number of participants choosing each perception as broken down by grade category. [b]The percent by perception is the count for each perception divided by the total count for that perception. [c]The percent by grade category is the count for each perception divided by the total count per grade category. [d]The percent of total is the count per perception per grade category divided by the total number of participants (n = 262).

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