

Financial Education and Social Cognitive Theory

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The subprime mortgage crisis and increase in personal bankruptcy cases in the United States are strong indicators that financial literacy in our country is in a freefall. Countless news reports have documented stories of consumers who willingly signed credit card and loan agreements despite not fully understanding the risks. Simply trusting lenders and financial corporations to look out for customers' best interests has led many of these consumers to financial ruin. Their lack of personal finance knowledge, and by extension their financial pain, could have been avoided with a stronger foundation of personal financial education and economic reasoning skills starting in elementary school. (Meszaros & Suiter, 1998; Andrade & Morton, 2007; U.S. Department of the Treasury, 2002).

However, just seven states require a course in personal finance for high school graduation, and only nine states require any graduation-dependent testing or assessment of student knowledge about personal finance (National Council on Economic Education [NCEE], 2007). Considering that just one in six students has actually had a personal finance course (Jump\$tart Coalition study, as cited in Anonymous, 2008), it is no wonder that the United States is facing a crisis due to financial illiteracy.

Addressing Financial Illiteracy

In January 2008, the Bush administration launched the President's Council on Financial Literacy in response to the United States' growing personal finance crisis (The White House, 2008). The Council has already approved a standardized middle school math curriculum, but because most states do not mandate personal finance instruction in schools (NCEE, 2007), that

action does not have strong forward momentum. Instead, the decision of whether or not and how to include personal finance instruction has been left to teachers, who already juggle a variety of mandated curriculum requirements and face mounting pressure to teach to the standardized tests (U.S. Department of the Treasury, 2002).

Teachers who are not mandated to teach personal finance need motivation and creative solutions for including essential financial skills in their instruction. This paper explores how Bandura's social cognitive learning theory applies to teaching fourth-grade students in math classes about personal finances basics by offering them tools to develop sound economic reasoning to use in adulthood.

Assessing Cognitive Developmental Level and Applying Social Cognitive Theory

A typical fourth grader is in the concrete operational stage and experiences dramatic developmental growth (Schunk, 2008). As the child's basic skills and declarative knowledge build, he or she moves to more abstract thinking and is able to apply concepts to real situations. Financial education is suitable topic for this age group because it can build upon basic mathematical skills and help students to apply them to money management. Borrowing from real-world examples with money management helps students build schemas or patterns for behavior.

Bandura's social cognitive theory, which focuses on learning through the environment (Schunk, 2008), is an appropriate approach to teaching money management because mastery of this topic addresses behavior based on the person and their environment.

Motivation and Incorporating

Personal Finance Education into the Curriculum

While most educators and adults support the idea of squeezing personal finance into the curriculum, few teachers actually do it (Morton, 2005; NCEE, 2007). Even though students may be naturally interested in and motivated to learn about money, instructors may not be as motivated to teach it. Dissuading forces for teachers include the following: (a) Personal financial education takes a back seat to other subjects when it is not mandatory; (b) teachers who do not fully understand financial subject matter may be reluctant to teach it; (c) economics education resources are not standardized or adequate (e.g., many materials cover wants versus needs but do not address the importance of developing short-term and long-term decision-making skills); and (d) teachers often must help students unlearn the poor financial habits they have brought from home into the classroom (Meszaros & Suiter, 1998). In short, the instructor's task requires motivation, creativity, time, and appropriate materials in a variety of media.

Setting Goals for Financial Education Instruction

A well-designed money management curriculum for elementary school teachers and students should not rely on a behavioral approach that ends with observed performance of mastered financial terms and formulas. Rather, the curriculum should capitalize on the rich interplay of personal factors and external factors that shapes students' behavior (Johnson & Sherraden, 2006) and leads to self-efficacy. It should cross subject lines and allow observational modeling that allows students to learn enactively and leads to real application about personal financial lessons. The financial education curriculum should recognize students' natural inclination to learn from their own environments and should encourage them to examine the

various roles they play in an economy, as consumers, producers, savers, investors, citizens, resources, and future voters. At least some of its outcomes should be measurable for the short term, and others should foster attitude change for the long term. It should be a multi-dimensional curriculum that factors in cognitive level and such external influences as parents and pop culture.

In short, a financial education curriculum should be designed as an extension of the social cognitive theory of learning. When personal finance curriculum is designed to “enable teachers and students to view consumers as actors in a broad range of human behavior” (Morton, 2005), the lessons could be as important to student success as reading instruction. The following strategies for integrating personal finance education make clear connections to social cognitive learning theory. The goal of individual lessons in this curriculum should be to build a foundation for future financial lessons that will ultimately help students develop critical thinking and make informed decisions about money management and personal finance.

Instructional Strategy 1: Financial Lessons and Language

One way to promote math success and interest may be to integrate it with language. In an international study, challenging math assignments were paired with instruction that incorporated “active questioning and dialogue” rather than the teacher simply providing correct answers (Hyde, 2007). The results showed that this approach cemented the conceptual learning. Language became a strategy for helping students commit the math concepts to long-term memory.

With respect to money management, a fourth-grade class could learn through peer modeling by reading stories about successful young entrepreneurs. Through the story students

will observe competent money managers who share their chronological age, and may be more likely to try to imitate the behavior because of the peer-to-peer connection (Brody & Stoneman, 1985). Answering questions about the story will familiarize students with the details and perhaps help them see a similarly attainable goal related to practical money management. That connection may also make students more willing to engage in an exercise to help the peer entrepreneurs brainstorm solutions to business-related problems or decisions. After discussing possible solutions, students could be asked to then apply the math skills to figure out which solution is most economically desirable.

An assessment tool for measuring this strategy would be teacher evaluation of oral responses to questions posed to students about the stories they read about young entrepreneurs.

Instructional Strategy 2: Familiarity, Modeling, and Social Context

The essence of social cognitive learning theory is learning from the social environment. An instructor who aims to teach money management should seek ways to model how personal finance naturally fits into the context of students' everyday lives, and then allow enactive learning to play a role. One strategy is to make the topic relevant by using examples that interest students (Murphy, 1999). In a fourth grade classroom, lessons about spending could revolve around buying lunch in the school cafeteria or planning a birthday party. Both involve simple expenses and social contexts to which most elementary school students should be able to relate.

To relate lessons about earning, the teacher could relate money concepts to child-operated businesses that students might see advertised in their neighborhoods, such as lemonade stands, pet-sitting, or lawn mowing services. Setting up a real business in the classroom could

take the lesson one step further, allowing the instructor to model the behaviors of a successful business owner for students and help the students set realistic business goals. Asking individual students or groups to create a simple business plan would be a good way to put the learning into action, as it would engage the students' critical thinking skills. An alternative would be to set up a token economy in the classroom. Real-life context offers students a chance to observe how financial learning can open the door to actual earning, and chances are, few students will object to applicable lessons in how to make money.

Social context also includes major news events, and those events that involve a financial aspect provide an opportunity to apply economics lessons to reality. Hurricane Katrina was just such an example. One Mississippi middle school teacher used the event to educate students about the financial consequences of a natural disaster (Andrade & Morton, 2007). Since many of her students were personally affected by the storm, the social context created a new urgency and relevance to the economics content. In this particular class, personal finance education took the very realistic form of learning the basics of rebuilding family finances and how the Federal Emergency Management Agency (FEMA) debit cards worked. Katrina's social context also opened the door to deeper discussions of the concept of poverty and how making smart financial decisions could help students improve their lives. Understanding the consequences through enactive learning students should be motivated to retain the vital lessons that could help them survive financial disaster.

Opportunities exist for vicarious learning as well. Not all students have direct experience with a hurricane's economic effects or with running their own business, but through observation they should be able to mentally rehearse the appropriate behavior and internalize the financial

skills and strategies to tap if or when they might be needed in the future. Relating the economics lesson to larger implications promotes higher thinking and challenges students to problem solve.

An assessment tool for measuring this strategy could include teacher evaluation of written responses in the form of a completed business plan or written answers to questions about the social impact of financial crisis.

Instructional Strategy 3: Technology's Role in Enactive Learning

Technology can play an integral role in financial education, especially considering its impact on the environment of a typical fourth-grade student in a U.S. school. According to the latest Tween and Teen Lifestyle report from the research firm GenDigital, tweens in 2008 spend 6.4 hours online during a typical week during school year (Goodstein, 2008). One of their favorite activities is interactive gaming. Clearly, elementary students function seamlessly between the online and offline worlds, and financial instruction should follow that trend. And math students who feel competent about computer skills may respond more positively to math lessons that involve electronic activities because it allows them to demonstrate their proficiency (Spence & Usher, 2007) and by association, could increase self-efficacy about math.

Interweaving technology into mathematics instruction as opposed to treating it as an “add-on” is vitally important (Cuocu, 1995). Several Web sites carry lessons into the desirable electronic forum (Risinger, 2005), allowing students to learn by doing. Non-profit organizations like The Jump\$tart Coalition and Consumer Jungle as well as government agencies such as the Federal Reserve and U.S. Mint have created highly interactive, age-appropriate financial Web sites for children to explore and learn through interactive games with a high replay-ability factor

that offer skills practice. Financial services companies and education foundations have followed suit. The Internet is filled with simple games that let students drill and put into practice lessons about savings goals, how to calculate interest, and even how to create and run a virtual lemonade stand. A typical fourth grade class learning about setting up a business might discuss the necessity for making change, and then go online to practice the skill. Learning to make change builds upon declarative knowledge (number facts) and procedural knowledge (how to use coins in transactions) to reach the self-efficacy goal of conditional knowledge (when and why making change is an important part of money management).

An assessment tool for measuring this strategy would be self-reporting and direct observation of game results. The quantifiable results will give students benchmarks to meet and beat with repeated practice. Each success in actual academic ability will build confidence, which should lead to self-efficacy (Pajares & Kranzler, 1995). Their belief in their ability to do practical math may also aid their self-regulation.

Summary and Implications

The first hurdle with financial education is making it a standard part of the curriculum. Once that happens, the learning goal should be conditional knowledge. Students should be able to apply their knowledge and skills in meaningful ways. This can be achieved by addressing the whole lifespan, with short-term applications of learning and encouraging deeper critical thinking skills that will benefit students for the long-term. Social cognitive theory may be the optimal way to impart these lessons as its goal of self-efficacy should translate into students who experience financial stability and success as a result of their learning.

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