Are classroom financial education and in-school banking effective?

The economic crisis has demonstrated how critical informed and effective decision-making is for the economic well-being of consumers, families and communities. This has intensified pressure on policymakers to design effective strategies to enhance the financial capability of the general public, and the focus is increasingly put on schools as the delivery mechanism to teach financial education to children and youth. At least 36 states have personal finance standards that are required to be implemented as part of high school curricula. Of these, 13 require a course in personal finance be taken and five include testing of student knowledge as a condition of graduation.

However, research on the effectiveness of high school financial education courses is not promising. Studies on the impact of financial education requirements on economic behavior later in life is mixed at best, and no studies use rigorous experimental methods. Some observers have suggested that in fact high school is too late to be teaching financial education; instead personal finance needs to be taught earlier—beginning as early as elementary school—to better achieve stronger economic outcomes.

Children (and adults) often show evidence of learning more from education if it is experiential and relevant to their lives. In the context of financial education, combining financial education with access to an account with a financial institution may provide one such opportunity for experiential learning. The account could provide students with a “testing ground” to practice the skills they were learning in the classroom, improving overall learning and retention of the curriculum. A number of schools have added student bank or credit union branches on site to take deposits and encourage basic financial management, and although financial institutions have been encouraged by the FDIC and NCUA to pursue partnerships with schools, it’s estimated that only a small number of schools participate in in-school savings programs.

With support from the U.S. Department of the Treasury, Corporation for Enterprise Development (CFED), the Center for Financial Security at the University of Wisconsin-Madison (CFS), and OpportunityTexas partnered with local school districts and financial institutions to explore the impact of financial education and financial access on elementary-age children. The Assessing Financial Capability Outcomes (AFCO) project consisted of field studies with 4th and 5th grade students in two school districts—Eau Claire, Wisconsin and Amarillo, Texas—during the 2011-2012 and 2012-2013 academic years. This study offers the first rigorous test of the impact of approximately five hours of classroom-based financial education and access to a bank or credit union branch in school, both alone...
and in combination, on students’:

- Financial knowledge
- Financial behavior, i.e., opening and using savings accounts
- Attitudes towards saving and financial institutions

Key findings include:

- **Classroom financial education improved financial knowledge and attitudes.** After receiving five hours of classroom-based financial education, students demonstrated greater knowledge of financial concepts, and these knowledge gains persisted one year later. Attitudes towards saving and financial institutions also improved: more students believed it is easy to save money and that banks offered services that are useful to them.

- **In-school bank branches increased account ownership and improved attitudes toward banking.** Access to an in-school bank or credit union branch significantly increased the number of students who opened accounts and how actively these accounts were used. In-school branches also improved attitudes about saving and financial institutions.

**Pilot Design**

This study began in the 2011-2012 academic year with 4th and 5th grade students in Eau Claire, Wisconsin and continued in the next school year with the new 4th grade class. In the second year of the pilot, a second site was added with 4th graders in the Amarillo, Texas Independent School District (ISD).

**FIGURE 1: DEMOGRAPHICS OF PILOT SITE COMMUNITIES**

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**Eau Claire, Wisconsin**
- Population, 2010: 65,883
- Median household income, 2007-2011: $42,226
- Unbanked Households, 2009: 5.4%
- Economically Disadvantaged Students, 2011-2012: 41%

**Amarillo, Texas**
- Population, 2010: 190,695
- Median household income, 2007-2011: $44,769
- Unbanked Households, 2009: 10.3%
- Economically Disadvantaged Students, 2011-2012: 67%

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4 Sources: US Census Bureau State & County QuickFacts; CFED estimates of unbanked households derived from a model based on the 2009 FDIC Survey and the 2005-2009 American Community Survey (ACS); Texas Education Agency, Performance Reporting and Wisconsin Department of Public Instruction, Wisconsin’s Information Network for Successful Schools.
While there were small differences between the pilots in the two sites, both used a staggered design in which classroom- or teacher-based cohorts of students were randomly selected to receive financial education during the study, and other students received it after the study was completed. All students were given an assessment or survey prior to the start of the financial education program (the “study period”) and again after the program ended (before the “control group” teachers began teaching the program). The assessment included a 13-point financial literacy quiz and other questions to measure students’ attitudes, beliefs and experiences with financial issues. The financial education program used in both Eau Claire and Amarillo was adapted from the Council on Economic Education’s Financial Fitness for Life curriculum, drawing primarily from the lessons addressing savings, financial decision-making, and money management. The lessons were delivered by classroom teachers in five or six lessons of approximately 45 minutes each. So that teachers felt prepared to teach the material to the students and to standardize financial education treatment, they received training on the lessons and were provided with all the lesson materials.

In addition, approximately half of the schools in each school district had access to in-school bank or credit union branches.

- In Eau Claire, the in-school branches had already been launched prior to the study’s implementation by Royal Credit Union (RCU) in six of the 13 elementary schools. RCU’s School $ense program allows children to open a joint savings account with a parent or guardian and make deposits and withdrawals at school. The in-school branches are open once a week at lunchtime, and students are encouraged to set savings goals and can earn small prizes for depositing.

- In Amarillo, Happy State Bank (HSB) operated Kids’ Bank branches in three of Amarillo’s 36 elementary schools prior to the implementation of this pilot. In addition, HSB and Amarillo ISD agreed to expand the in-school banking program to an additional 15 randomly selected schools for a total of 18 schools with access to Kids’ Bank branches during the study period. HSB uses a similar model to RCU’s School $ense program to operate their Kids’ Banks: students open a savings account, either jointly with a parent or guardian or in their name only, and can make deposits at school. Each time a student makes a deposit into their account, he or she receives a small prize from the treasure chest as an incentive to save. The Kids’ Banks were open once a week during the study period, either before school, at lunch or after school.

In Eau Claire, the in-school banks were well-established, and 69% of students were banked prior to the pilot. However, in Amarillo, this pilot provided the first exposure to bank accounts in school for the majority of students. In order to increase the number of students who had HSB accounts during the study period, the pilot team randomly selected students within banked schools to receive a $25 seed deposit if they opened a Kids’ Bank account. Approximately half of the students in banked schools were selected to receive the incentive through drawings held in their math classrooms.

Implementing the study for a second year in Eau Claire created an opportunity to follow up with the initial group of 4th graders as 5th graders, after all students had received financial education. Students were administered the assessment a third time, approximately a year after they received the financial education, allowing an examination of the persistence of any effects observed in the first year.

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5 Adjustments were made to the curriculum and the student assessment in Amarillo so that they covered the majority of the standards for grade 4 in the new K-8 personal financial curriculum standards the Texas legislature passed in 2011. Texas school districts are not required to teach the new standards until the 2014-2015 academic year, so this pilot provided an early opportunity to test and get feedback on the new standards.

6 Drawings held in classrooms were used to distribute the incentive so that the process of selecting incentive offer recipients was transparent to students and their families. The $25 incentive was not funded by the U.S. Treasury Department but was provided through private funds raised by Opportunity Texas through the Amarillo Area Community Foundation.
Key Findings

Knowledge Gains: Financial education appears to produce a large improvement in financial knowledge; on the 13-point assessment, students who received financial education improved by an average of two points. Additionally, students with bank accounts show stronger effects in terms of changes in learning. However, having a bank account was not randomly assigned, so the students that already had bank accounts or opened accounts during the study are likely different than students without a bank account. No evidence was found suggestion that a bank branch in school has a direct impact on the financial knowledge gained.

Attitudes toward Saving and Financial Institutions: Financial education produced a modest increase in all students’ perceptions of how easy it is to save money and an even larger increase in how much students believe banks offer services that are useful to them. While the effect of the education was stronger, there was also evidence that having access to a bank or credit union branch had an impact on students’ attitudes.

Students Banked: Based on school-based variation in access to in-school banking, the likelihood of a student having a bank account was highly correlated with the presence of in-school financial services: 64.3% of students in schools with in-school branches were banked, compared to only 39.9% in schools without branches. Additionally, we estimate that the number of banked students increased slightly during the study period after students received financial education and when students had a bank or credit union in their school. These effects were found predominately in Eau Claire, where students may have had a better understanding of their ability to open accounts.

Account Use: Data on student bank accounts suggest that in-school banking access is related to students more actively using accounts, although the sub-sample of students with account data was somewhat limited. There was some evidence that weekly deposits in Eau Claire were higher following financial education, but the results were not statistically significant and the average deposit data was a relatively “noisy” measure, meaning there was a great deal of variation in students’ deposit activity.

Incentives Boost Take-up: In Amarillo, the offer of the $25 incentive resulted in an 18% increase in students becoming banked, showing that even a modest incentive can boost account take-up. During the planning of this pilot, school administrators expressed worry that students, particularly from low-income families, would withdraw the incentive as soon as it was deposited in the account. However, this was not a common occurrence, according to the account data on students that received the seed deposit.

Persistence over time: The results of the follow-up survey with students in Eau Claire were remarkably positive. We surveyed students a year after they had received the financial education, and each outcome we looked at improved between baseline and follow up and stayed at those elevated levels a year later. This is encouraging evidence of the persistence of the benefits of financial education.

[Note: This change in assessment score is close to a full standard deviation unit (a 0.77 effect size), which is quite large by most standards.]
Implications

**Insight #1: Classroom-based financial education works.**

Financial education in schools, even in small amounts, does appear to increase financial knowledge and capability. These are encouraging findings for proponents of classroom-based financial education. Positive results were found after integrating five or six short lessons into classroom instruction. However, training and support for teachers was critical to the success of this pilot, and schools seeking to replicate these outcomes would need to be willing to invest the time and resources necessary to provide similar support to their teachers.

**Insight #2: In-school bank branches may be an effective way to introduce financial capability to children.**

This study provides some evidence that students do learn more when given an opportunity to apply their learning. As one teacher in Amarillo observed, students with bank accounts seemed to be more engaged in the lessons as the account made what they were learning relevant. Access to in-school banking resulted in more students with bank accounts, students more actively using their accounts, and improved attitudes towards saving and financial institutions. Partnerships between local financial institutions and school districts are a promising strategy to teach financial skills to children early in life, particularly when in-school banking programs can be combined with a financial education curriculum.

**Insight #3: Financial institutions could use guidance on children’s savings marketplace.**

The field of children’s savings initiatives is growing rapidly, and financial institutions are eager to serve this expanding marketplace. With this expansion, there is a growing need for guidance on how financial institutions can design or modify products to serve the market at scale. Providing bank accounts for children can be complicated. Banks often run up against barriers, perceived or real, that hinder their ability to open accounts for children. A complex patchwork of federal and state rules and regulations make it difficult for banks to understand questions like: What documentation is required to open an account? Can a third party (e.g., a school or nonprofit) open accounts on behalf of children? If so, is a Social Security Number or individual tax account number necessary? Financial institutions would be served by having a deeper and clearer understanding of what is possible and permissible in this marketplace.

**Insight #4: Even A Modest Incentive Can Boost Account Ownership.**

The results from providing students with a $25 incentive to open an account in Amarillo suggest that even a modest incentive can be effective in encouraging account take-up. A modest initial deposit has also proven helpful in other child savings programs as a way to generate excitement and interest in the accounts among students and parents alike.

While this research is an important contribution to the literature on financial education and access for youth, there remain a number of unanswered questions about how to best incorporate personal financial instruction and access to banking services into schools, and about the long-term impact of these interventions. Future research should examine long-term outcomes associated with these interventions as well as test strategies for increasing their impact and effectiveness.