

Experiential Financial Capability Education: A Field Study of My Classroom Economy

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This brief summarizes the results of an evaluation of My Classroom Economy (MCE), an innovative approach to financial education.² In contrast to more traditional financial education programs based around lesson plans, MCE is experiential. Teachers establish a classroom-based economy that integrates into the school day as a classroom management system. Research suggests that this type of experiential approach is a promising teaching strategy, with the added benefit of minimizing time away from other classroom activities.

Although considerable momentum has built behind the idea of teaching financial literacy in schools, few studies have identified effective financial education strategies for school-aged children. This evaluation uses rigorous techniques to examine the effect of a simulated economy on elementary school students' financial knowledge, attitudes, and behavior. The evaluation was funded by the U.S. Department of the Treasury's Financial Empowerment Innovation Fund and conducted by the Center for Financial Security (CFS) in partnership with the School District of Palm Beach County (SDPBC).

My Classroom Economy

The Vanguard Group provides MCE program materials for free at myclassroomeconomy.org. Teachers can download documents or request paper copies. While this evaluation focuses on students in grades 3–5, MCE materials are available for all grades K–12.

With MCE, students earn and spend classroom “dollars” in a simulated economy. Teachers assign each student a job, from which he or she earns income. Students then spend their money renting or purchasing their desks and have the opportunity to

Key Findings

Students in My Classroom Economy (MCE) classrooms show consistent gains in financial knowledge, budgeting, financial socialization, and economic experience after 10 weeks. These effects range in size but are all statistically significant and positive. Overall, the results of this study are encouraging and highlight the promise of experiential learning programs like MCE for elementary school-age students.

MCE increases

- Financial knowledge (13% of a standard deviation)
- Budgeting behavior (11% of a standard deviation)
- Financial socialization—talking to parents about money (19% of a standard deviation)
- Economic experience outside of school (21% of a standard deviation)
- Students who used MCE were more likely to have bank accounts and engage in money management behaviors outside of school.
- Parents of MCE students reported that their students were taught about money at school at much higher rates than the comparison group.
- Teachers reported high satisfaction with MCE, with 95% planning to continue using it.
- MCE appealed to teachers both as a classroom management system and as a financial education program. Teachers from a variety of backgrounds successfully implemented MCE.

¹ The content of this document does not represent the official views or policies of the U.S. Department of the Treasury. The views and opinions expressed herein are those of the authors and do not necessarily represent official Treasury positions or policy. In addition, for coauthor Batty, the analysis and conclusions do not indicate concurrence by the Board of Governors of the Federal Reserve System or its research staff.

² The evaluation was performed under contract TOS-14F-0028 for the U.S. Department of the Treasury. The full report is available at go.wisc.edu/5vx1z5.

buy items at classroom stores or auctions. MCE also acts as a classroom management system, allowing teachers to establish rules, award bonuses or impose fines for specific behaviors. MCE can be customized for individual classrooms. For instance, each teacher creates his or her own list of classroom jobs and decides which behaviors are subject to bonuses and fines.

The School District of Palm Beach County

In the fall of 2014, CFS issued a national call for school districts interested in collaborating on an evaluation of MCE; SDPBC was ultimately selected as the partner district. With an enrollment of more than 175,000 students, SDPBC is the 12th largest school district in the country, according to [National Center for Education Statistics](#). SDPBC serves students from diverse socioeconomic and racial and ethnic backgrounds. The district has a district-wide financial literacy coordinator and a strong research and evaluation department.

Although MCE is well aligned with Florida's financial literacy standards, the decision to participate in a particular financial literacy program ultimately rests with school-level administrators and teachers; 115 teachers in 24 schools opted to participate in the evaluation, with the understanding that some schools would be randomly assigned to the comparison group and required to delay implementing the program. Fourth- and fifth-grade classrooms were recruited for the evaluation; a small number of third-grade classrooms also participated.

Evaluation Process

Schools that volunteered for the evaluation were randomly assigned into treatment and comparison groups. The treatment group implemented MCE over the first 13 weeks of the 2015–2016 school year, the district's first trimester for elementary students. The comparison group delayed using the program until the second trimester. This cohort design is used to establish the causal effects of MCE on measured outcomes.

Teachers in both the treatment and comparison groups attended an in-person workshop the week before school started. During the training, teachers started preparing materials for their classrooms and learned more about the evaluation.

Data Collection

To measure program outcomes, CFS developed student and parent surveys. The University of

Wisconsin Survey Center worked with the District to collect the baseline and follow-up surveys at participating schools during the weeks of August 31 and November 9, respectively.

The student surveys measured outcomes across six areas:

- Financial knowledge,
- Budgeting,
- Propensity to plan,
- Self-control,
- Financial socialization, and
- Economic experience.

The survey questions were developed based on measures validated in prior studies and were pretested with similarly aged children.

The parent survey was administered at the end of the first trimester, before the comparison group started using the program. The parent survey focused on financial socialization (e.g., providing an allowance, talking to their child about money management).

Table 1 shows the final number of student and parent surveys included in this analysis, as well as the number of classrooms and schools in each group. Overall, this evaluation utilizes data on 1,972 students across 115 classrooms in 24 schools. The 15 schools that started using MCE during the first trimester had 1,187 students in 69 classrooms; the comparison group, which delayed implementation until after the evaluation, comprised 785 students across 46 classrooms in 9 schools.

Table 1. Final Sample Sizes, by Group

	Student Surveys	Parent Surveys	Classrooms	Schools
Treatment Group	1,187	364	69	15
Comparison Group	785	399	46	9
Totals	1,972	763	115	24

Student Outcomes

To estimate student outcomes, the analysis compares changes from the baseline to the follow-up survey between the treatment and comparison groups. The analysis controls for student demographics and students' baseline survey responses.

The subsections that follow describe the effects of MCE on financial knowledge, budgeting, financial socialization, and economic experience. The results for students' propensity to plan and self-control were

not statistically significant and are excluded from this brief. All six of these items were measured using scales made up of multiple survey questions; Table 2 shows sample questions. For ease of interpretation, we express effect sizes as the percentage of the standard deviation of the outcome. That is, 10% indicates an effect size of one-tenth of a standard deviation. Effects are considered statistically significant at the 5% level.

Table 2. Sample Student Survey Questions

Topic Area	Sample Question
Financial Knowledge	A plan for spending your money is called a . . .
Budgeting	How often do you have a plan for how you will spend money?
Financial Socialization	How often does your family talk about how you spend money?
Economic Experience	Do you currently have a bank account in your own name?
Propensity to Plan*	How often do you set goals for yourself?
Self-Control*	How hard is it for you to avoid spending any money you have right away?

Note: All questions were multiple choice.

**Results were not statistically significant and are thus excluded from this brief.*

Financial Knowledge

Although MCE is not built on formal lessons about financial topics, the exposure to financial situations that it provides could improve students' financial knowledge or motivate students to pursue that knowledge elsewhere. The financial knowledge scale was comprised of 13 questions. The analysis of these questions utilized a technique that accounts for the relative difficulty of each question and how well each question distinguishes between high- and low-performing students.

MCE is estimated to have a statistically significant effect of just over one-tenth of a standard deviation (13%) on students' financial knowledge scores. It is notable that, as measured in effect-size units, the size of the financial knowledge gain is similar to that found by Batty, Collins, and Odders-White (2015),³ who tested a five-hour, formalized course that taught specific content that appeared on the student knowledge quiz. MCE produces similar knowledge gains without a formal curriculum or class.

Budgeting

Within classrooms using MCE, students earn money and must manage expenses. This budgeting practice could translate into changes in related survey responses. The overall estimate of MCE's effect is 11% of a standard deviation.

Financial Socialization

The survey also included two items related to financial socialization from the perspective of the student. These measures relate to whether a student's family talks about money at home. MCE had a statistically significant effect of 19% of a standard deviation.

Economic Experience

Finally, the survey measured students' economic experiences outside of the MCE setting. The effect of MCE in this domain is statistically significant, with a magnitude of 21% of a standard deviation. This finding, like the financial socialization result, is consistent with MCE encouraging students to engage in more economic activity in the real world and more discussion of money issues at home.

Parent Survey Outcomes

In addition to student-reported outcomes, we measured parents' perceptions of student behavior. We analyze the parent survey questions recorded after students in the treatment group have completed MCE, but before the program began for students in the comparison group. The parent surveys measured five outcomes:

- The student has a bank account in his or her own name.
- The student earns money of his or her own (e.g., through chores or an allowance).
- The student manages his/her own money.
- The school teaches the student about money.
- The parent discusses financial issues with the child.

MCE is positively associated with parents reporting that their children have bank accounts in their own name, and that their children make their own money decisions. In addition, parents of children in MCE classrooms were much more likely to report that their children were learning about personal finances at school than parents of children in the comparison group.

³ Mike Batty, J. Michael Collins, and Elizabeth Odders-White (2015), Experimental evidence on the effects of financial education on elementary school students' knowledge, behavior, and attitudes, *The Journal of Consumer Affairs*, 49(1), 69–96.

Outcomes Summary

Table 3 summarizes the statistically significant effects of MCE. The columns indicate the direction of the effect and the effect size expressed as a percent of a standard deviation.

Table 3. Summary of MCE's Effects

Outcome	Direction of Effect	Effect Size (% of a Standard Deviation)
Student Survey		
Financial Knowledge	+	0.13
Budgeting	+	0.11
Financial Socialization	+	0.19
Economic Experience	+	0.21
Parent Survey		
Student has own bank account	+	0.16
Student manages own money	+	0.42
Student learns about money at school	+	2.60

Teacher Experiences

To understand teachers' experiences implementing MCE, three sets of data were collected: a teacher survey collected by the research team in November 2015, a teacher feedback survey collected by the district in May 2016, and six teacher interviews. Overall, findings from these sources document the success of the evaluation design, along with high teacher satisfaction with the program. Key findings include

- 95% of teachers planned to continue using the program,
- 82% rated their experience with MCE as “good” or “excellent,”

- 58% of teachers felt “very” or “extremely” prepared to teach students about personal finances, and
- Teachers from a variety of backgrounds, including those with no experience teaching financial literacy, successfully implemented MCE after three hours of formal training.

Conclusions

MCE offers a unique approach to financial education that stands in contrast to formal lesson plans. This evaluation finds that this approach produces statistically significant changes in financial knowledge and some other financial behaviors. These changes are particularly compelling in light of the relatively short duration of the evaluation and the experiential approach of the program. The findings suggest that experiential financial learning may have positive educational effects on par with more formal financial literacy efforts. MCE also has the added advantage of serving as a classroom-management system, integrating with teachers' day-to-day efforts to promote positive behaviors. The approach puts lower demand on teachers for training and support. MCE and similar approaches may provide important, relatively low-cost formats for promoting financial capability among K–12 students.

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