**Improving Financial Literacy through Financial Education in Schools**

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**Abstract:**

Researchers and policy makers have identified low levels of financial literacy as a cause of many sub-optimal economic outcomes. Research into financial literacy is still emerging, but plenty of evidence suggests that increasing an individual’s financial literacy promotes welfare and can prevent economic burdens. This paper aims to deepen the understanding of how financial education can be used to improve financial literacy; specifically, how financial education can be implemented in schools in a non-invasive, low-cost way to improve youth financial literacy. It focuses on a particular form of financial education called My Classroom Economy (MCE) that can be implemented in grades K-12 at relatively low costs. I will test students’ levels of financial literacy before and after using MCE for one school year, measured through financial literacy quizzes. The hope of this research is to determine if MCE produces significant improvements in financial literacy, and if so, when and for how long it should be implemented in schools to produce improvements that are worth the costs.

**Section 1: Narrative**

**Introduction**

Since the financial crisis of 2008, there have been many calls for improvements in financial literacy (Goyal and Kumar 2020). The best ways of improving financial literacy are still debated, but one of the methods that has proven to be effective is financial education in schools (Kaiser and Menkhoff 2020; Frisancho 2018; Salas-Valesco, Moreno-Herrero, and Sânchez-Campillo 2020). However, implementing financial education in schools comes with many costs. One of the least costly methods is an online simulated economy called My Classroom Economy (MCE) that has shown to be effective at improving financial literacy (Batty, Collins, O’Rourke, and Odders-White 2020). Little research has been done on the impact of MCE on financial, but the program shows great potential to improve students’ financial literacy in a relatively low-cost manner. My research aims to deepen the understanding of how this form of financial education can be implemented to improve financial literacy. My question is, “How could My Classroom Economy, a form of financial education, be implemented in schools to best improve financial literacy?”

**Background/Related Work and Motivation**

Financial literacy is a relatively new concept — the first research paper to even mention this term was in 2000 (Goyal and Kumar 2020). Since the financial crisis of 2008 and the increase in digitalized financial markets and access to credit, the need for more financial literacy has gained a lot of traction (Goyal and Kumar 2020). Research has shown low levels of financial literacy to be correlated with many negative economic outcomes, such as higher borrowing rates, mortgage delinquency, and home foreclosure (Kasma, Heuberger, and Hammon 2018a). Financial literacy has also been shown to be good for individual welfare (Lusardi and Olivia 2014, 5-44).

To increase financial literacy, there have been many calls for financial education policies and interventions. Several studies have found financial education to be an effective tool at increasing financial literacy, and many countries are implementing financial education policies and programs (Kaiser and Menkhoff 2020; Frisancho 2018; Frisancho 2020; Salas-Valesco, Moreno-Herrero, and Sânchez-Campillo 2020; “National Strategies” 2015). The U.S. has varying levels of financial education mandates, which have been found improve the credit scores and delinquency rates of students (Brookings 2018; Brown, Collins, Schmeiser, and Urban 2014). Nonetheless, financial literacy levels remain low, especially among youth (Lusardi, Mitchell, and Curto 2010, 358-380; Goyal and Kumar 2020).

There is some dispute as to whether financial education improves financial literacy. Some argue that role models; socio-economic, political, and cultural contexts; and the societal “money-talk taboo” are more influential on financial literacy (Kingsbury 2019; Zokaityte 2017). However, financial education has shown to be effective when implemented in certain ways — on youth, as a requirement during the school day instead of on a voluntary basis, and in an interactive format (Kasma, Heuberger, and Hammon 2018b; Frisancho 2020; Mandell, 2008; Totenhagen et al., 2015). I expect the societal factors to play a significant role in financial literacy; however, they are much harder to change than financial education, which has plenty of evidence for being effective.

Culminating these studies, it is clear to me that financial education is a necessary element of improving financial literacy and most effective when implemented in school curriculum. In an ideal world, financial literacy would be best improved if there was a sustained, heavy emphasis on financial education in schools and role models and teachers often discussed finances. But this costs money, resources, and time. For one, parents often do not have a lot of financial knowledge themselves and teachers are often not confident in teaching financial education because they lack financial knowledge (Batty, Collins, O’Rourke, and Odders-White 2020; Brookings 2018a). Additionally, introducing financial education in schools often means replacing other aspects of the curriculum (Salas-Valesco, Moreno-Herrero, and Sânchez-Campillo 2020; Batty, Collins, O’Rourke, and Odders-White 2020).

One method of financial education that does not come at a lot of cost is My Classroom Economy (MCE) (Batty, Collins, O’Rourke, and Odders-White 2020). MCE is a free, online, simulated classroom economy that implements financial education through experiential learning. It creates a classroom economic system that allows students to make financial decisions and provides financial instruction. It includes activities relating to earning salaries for performing tasks; managing expenses; earning bonuses or incurring fines; and making spending decisions at in-classroom stores or auctions. It’s premise sounds promising, and a study has shown MCE to be effective at improving financial literacy (Batty, Collins, O’Rourke, and Odders-White 2020). The study collected results from 20 schools in the School District of Palm Beach County that had fourth graders use MCE for a ten-week period. It had the students take a financial literacy quiz before and after their 10-week usage of MCE to gauge the improvements in financial literacy. The study found MCE to be about as effective as a traditional, lecture-style form of financial education, Financial Fitness for Life (FFFL). Overall, MCE has many appealing qualities. It comes at a low cost, does not require teachers to have previous knowledge or preparation, and does not impede on existing curriculum — it can be completed in conjunction with and between classes. Contrastingly, a traditional, lecture style implementation of financial education such as FFFL requires time to train teachers, extra money to pay the teachers, and cuts into the time spent on other subjects. MCE seems to be a seamless, low-cost, effective way to implement financial education; however, only one study has been done on MCE and financial literacy. More details need to be flushed out to understand how MCE can be best implemented.

**Methods**

I propose to run an experiment to better understand when and for how long MCE should be implemented in elementary, middle, and high schools to produce the largest improvements in financial literacy relative to their costs. My experiment will have students in the LAUSD use MCE for one school year and test their levels of financial literacy before and after the period. First, I will go through Institutional Review Board (IRB) to use human subjects for my experiment. Then I will reach out to elementary, middle, and high schools in the LAUSD asking them to participate. I will divide participating schools into a treatment group that uses MCE for one school year and takes a financial literacy quiz before and after the period and a control group that only takes the financial literacy quizzes but does not use MCE. Then I will formulate financial literacy quizzes for each grade, based on MCE learning outcomes, and send the quizzes, requesting demographic information as well (My Classroom Economy). I will analyze results, comparing the control and treatment groups, determining which grades had the most marked improvement, and observing patterns in demographics. Additionally, I would compare fourth grade usage of MCE for one year to 10 weeks as done in the previous study to see if there are increasing marginal returns. Finally, I would write a paper with my findings and recommend if MCE should be part of school curriculums, and if so, in which grades and for how long.

**Expected Results**

I expect to find an improvement in financial literacy across all grades and for grade four to have the greatest relative improvement compared to other grades, given they are the youngest. I expect that when comparing fourth grade usage of MCE for 10 weeks to fourth grade usage of MCE for a school year, financial literacy will increase at a higher rate using MCE for the school year.

**Conclusion**

Financial literacy is becoming increasingly necessary to help those who face economic struggles. Many countries as well as researchers and policymakers in the U.S. have begun taking steps to improve financial literacy due to its relationship with sub-optimal economic outcomes (“National Strategies” 2015; Kasma, Heuberger, and Hammon 2018a; Goyal and Kumar 2020). However, financial literacy levels remain low, especially among youth (Lusardi, Mitchell, and Curto 2010, 358-380; Goyal and Kumar 2020). While some alternative approaches have been proposed to improve financial literacy, financial education seems the most promising and plausible (Kaiser and Menkhoff 2020; Frisancho 2018; Frisancho 2020; Salas-Valesco, Moreno-Herrero, and Sânchez-Campillo 2020). Unfortunately, implementing financial education comes with many costs. One attractive option of financial education is an online simulated economy called My Classroom Economy (MCE), which is a free form of financial education for grades from K-12 (Batty, Collins, O’Rourke, and Odders-White 2020). Preliminary research has shown MCE to be easily implemented into schools and effective. My research aims to deepen the understanding of how MCE effects financial literacy, as it is a viable option for schools that comes at little cost (Batty, Collins, O’Rourke, and Odders-White 2020). I propose to run an experiment that tests how MCE affects students’ levels of financial literacy in grades 4-12, by testing levels of financial literacy before and after a yearlong usage. I hope my research makes it clearer whether MCE should be implemented in schools, and if so, at what point and for how long.

**Section 2: Works Cited**

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**Section 3: Budget**

I plan to allow 3 months for IRB, 2 months to create financial literacy quizzes, 1 month to gather contact information and email schools in the LAUSD, and 2 weeks to wait for responses. Then I plan to provide instructions to teachers on how to use MCE and compensate them for the three extra hours required to set it up: about $95.58 per teacher given the average public school teacher salary in LA is $31.86/hour. Then I will send financial literacy quizzes to each school to be completed and returned and wait 1 school year as schools use MCE. After than I will resend financial literacy quizzes to be completed and returned. Finally, I will analyze the results and write a paper with my findings.