Research And Curriculum



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Students in the FiCycle Math Course Put Their Education Into Action

Teacher Eva Hachikian and her students share their experience with FiCycle and describe how it quickly became the favorite mathematics class at NYC Museum School

When something is a hit, you know it. In the case of FiCycle Math, NYC Museum School teacher Eva Hachikian saw within the first year that this course resonated with her students. "Our first year with the curriculum, we piloted the program with about 10 students," recalled Hachikian. "I initially came across FiCycle under the strong suggestion of my supervisor, who had heard great things about it. I went to a professional development session right before our semester started, I got the workbook and I sat around a table with Phil Dituri, FiCycle's Director of Education, and a couple other teachers. We did problems and we talked about it. It was definitely a 'hit the ground running' kind of a semester but it was a very successful pilot, based on the user-friendliness of the materials, as well as how interested the students were."

Financial Life Cycle Education Corp (FiCycle) is a notfor-profit organization dedicated to ensuring every student has access to knowledge of the financial concepts necessary to live a prosperous life and the math skills needed to grasp those concepts





and put them into practice—skills that have been recognized as previously lacking in most high school graduates. The course FiCycle has developed is, first and foremost, a math course, taught by high school mathematics teachers like Hachikian—with the algebra content in the curriculum integrated with the most important principles of personal finance. Compelling research shows that students learn each of these subjects better when they are taught together—math scores increase when it is taught in the context of personal finance, and financial principles are retained much better when taught with the underlying math.

FiCycle Gains Traction at NYC Museum School

The FiCycle course presents schools with flexible options for implementation. The curriculum is created in such a way that it can be the main Algebra II course in a school's math sequence, or it can also be presented as a math elective in addition to other available courses. At NYC Museum School in downtown Manhattan, the course is a full-year senior math elective, and Hachikian teaches three sections of it. Two of the sections are with co-teachers, who help support students with special needs enrolled in those classes. The third section is comprised of students who also have Hachikian as their instructor for AP Calculus.

The NYC Museum School prides itself on providing a college-level education using the rich resources of New York City's premier historic, artistic, scientific, and cultural institutions. The highly-rated school believes in the extensive use of experiential learning



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and a rigorous educational curriculum rooted in the fundamental excitement of learning. Given the real-world relevance of FiCycle's curriculum and its success in increasing interest and engagement in math classrooms, it's not hard to see how the course has connected with NYC Museum School students and teachers.

"It's one of the few math classes that addresses real-world situations and problems," says Seckoumar, a student in the course who is on the AP math track. "It makes you more aware of financial decisions you'll have to make in the future, and which ones can be helpful and harmful to your credit and your finances as you move forward."

A large, diverse group of students are now enrolled across the three sections of the course, and the school plans to build on this success. According to Hachikian, "It served a programming purpose, it served a morale purpose, and it's fun to teach as a teacher."



Recognizing the Signs of Success

Hachikian and her students have observed, experienced, and articulated a number of different benefits they've received from the curriculum. Importantly, Hachikian notes that students from very different math backgrounds—from those who are simultaneously enrolled in AP Calculus to those who have traditionally struggled in math—each note their interest in the class and the feeling that they are learning new material they wouldn't be exposed to elsewhere.

"The students are eager. They ask questions. They approach it like, 'What are we going to learn about today?' I even notice this curiosity among the students I see twice daily—the unique way they interact with FiCycle. They've told me it's their favorite and that this is the best math class. One student told me recently that she likes how it feels, which is gratifying because she's a student who probably hasn't felt much success in math class."

Students, of course, don't use language like 'you helped me master this particular standard.' But they say things like, 'I remember that from yesterday,' or they raise their hand in class so the teacher doesn't have to ask for volunteers. Also (something their teacher certainly notices), students will turn in the homework from their favorite class first.



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In reflecting on their time in the class, students can clearly describe the benefits they experienced. "The course really helped me understand what I'm going to have to deal with in the future, when I'm a young adult," said one student, Caitlyn. "And especially going to college, I'm going to have to start a credit card. I'll need to take out loans for tuition. This course has helped me understand what it means to have liabilities and how that contributes to my wealth overall later in life. It's important to have control over your assets and your liabilities." Because the math is presented within the context of real-world situations, students find that it makes sense. In other words, they really 'get it' and understand why this is knowledge they need to have. "It's good that you have a balance of the math and the conceptual (personal finance) stuff," said Alex, another student who takes the FiCycle course. The balance of learning the mathematical concepts, presented alongside deeper dives and discussion about financial topics, is important because "you know you're going to use all this in the future," he says.



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Alex and other students describe how the presentation of the personal finance topics within their native mathematical context makes the content logical and easy to follow. As students learn more, they get more and more interested in financial topics, says Hachikian. She has noted the impressive quality of questions students ask due to their high level of engagement.

Increased Excitement for Math and More

Once students are deep into the curriculum, their engagement and enthusiasm builds, says Hachikian. For example, students enjoy learning how to make a spreadsheet to calculate a budget surplus, or reviewing accounting statements, and then become motivated to customize these sheets with their own data. They view this not as an academic task, but as skills they can—and will—really use.

"There are a lot of things that interest my students," says Hachikian. "We're talking about taxes and they're so excited. I want to talk about progressive and regressive tax, and they're like, 'what about a 1099 and when are we going to learn how to do 1040s?' They're just bursting at the seams." She adds, "I've taught Algebra II. I've taught coding. I currently teach AP Calculus. But I love this. It is like math, plus!"



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