



Findings from Year One

MassMutual Foundation Longitudinal Study of Financial Capability among Adolescents

2021-2022 School Year

 **MassMutual**
Foundation

| EVERFI®

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Executive Summary

During the 2021-2022 school year, the MassMutual Foundation and EVERFI launched data collection for a longitudinal study in order to examine the impact of a suite of digital learning courses on adolescent financial capability. The intent was to evaluate a digital learning experience that spans from middle school through high school and determine its impact on a number of student outcomes including: financial capability, engagement, retention, performance, academic outcomes, college/career readiness, and parental communication. The following report lays out the findings gleaned from the data collected in the first year of this longitudinal study which included learners taking the *FutureSmart*SM and *EVERFI* courses.

At the highest level, this unprecedented study revealed the following findings regarding the impact of these courses on students' knowledge, attitudes, and behaviors:

- Both the *FutureSmart* and *EVERFI* courses were shown to uniquely contribute to financial knowledge gain for learners, compared to a control group.
- Financial self-efficacy was significantly improved by both the *FutureSmart* and *EVERFI* courses. Furthermore, the *EVERFI* course continued to improve self-efficacy for learners above and beyond the effect of *FutureSmart* alone.
- *FutureSmart* had a significant impact on learners' planned financial behaviors compared to our control group, but the study did not find that the *EVERFI* course alone had a significant impact on students' reported financial behaviors.
- While the digital interventions were successful in shifting knowledge-based, attitudinal, and behavioral outcomes for learners directly, there was not an indirect effect on increasing family communication about fiscal matters for adolescents.

FutureSmart: Financial Literacy for Middle School Students is an interactive, digital financial education course designed for students in grades 6-8. Seven lessons (approximately 25 minutes each) guide students through a story-based narrative and interactive exercises. In the course, students learn to make real-life decisions about their personal finances and how to achieve important goals around saving money, education and career planning, and budgeting.

EVERFI: Financial Literacy for High School Students is an online course that teaches students how to make wise financial decisions to promote financial well-being over their lifetime. The interactive lessons in this high school financial literacy course translate complex financial concepts and help students develop actionable strategies for managing their finances. In this series of seven financial literacy lessons, students build an understanding of how financial institutions work, how to use them, the different products they offer, and how to manage their own account portfolio.

Background

In 2015, the MassMutual Foundation and EVERFI developed educational intervention to help improve financial capability for middle school students. We define financial capability as the combination of attitudes, knowledge, skills, and behaviors needed to make sound financial decisions and manage money in a way that reflects an individual's circumstances and goals. While most financial education has been historically provided to students in high school, research has shown that by age 12, students have an economic understanding that researchers describe as “essentially adult” (Jin & Chen, 2020).

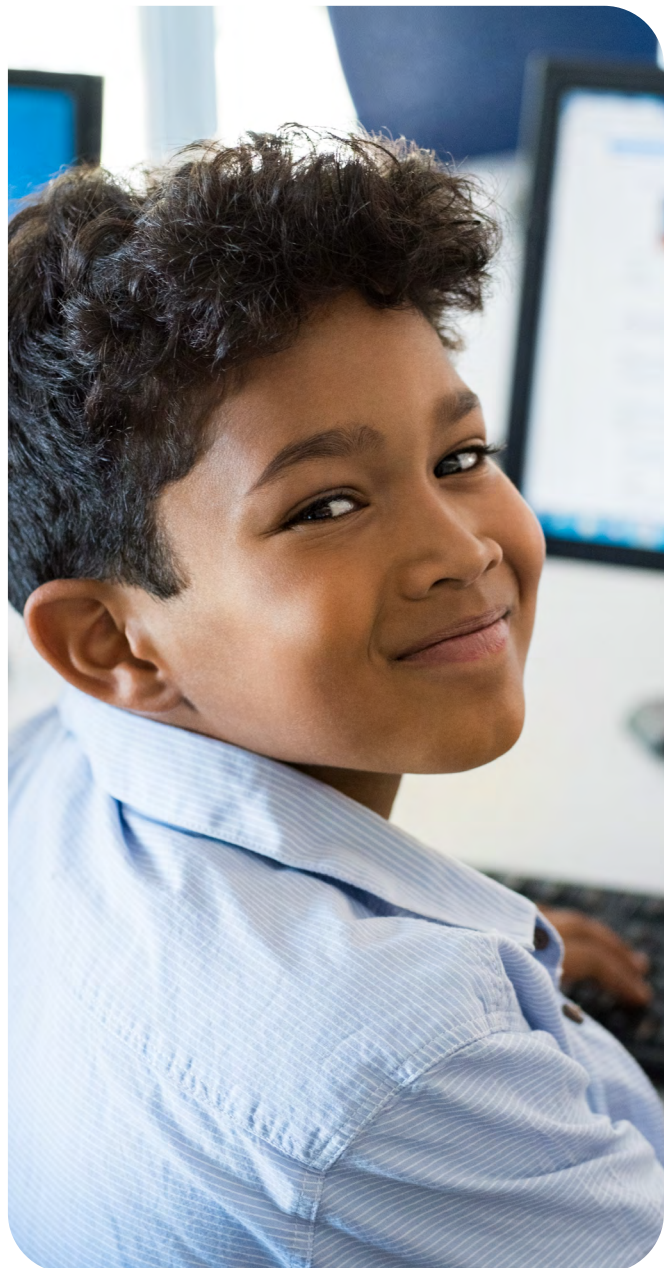
Adolescents are able to understand the benefit of saving and can grasp concepts like interest, supply and demand, and forms of payment other than cash. By the time adolescents reach middle school, they have already developed the capacity to understand complex economic concepts. They are beginning to understand consumer culture, make judgments, and assign value to purchases and brands.

These beliefs and habits follow adolescents through their transition to financial independence and adulthood – and ultimately impact adult financial capability.

The *FutureSmart* course was designed to provide middle schoolers with an engaging learning experience that covers topics such as banking, saving and investing, budgeting, and planning for the future. Learning objectives were developed based on the Knowledge, Attitude, and Behavior (KAB) Model of learning (Bettinghaus, 1986). This process suggests that behavioral change is driven through consecutive improvements first in what a person knows or understands about an outcome, and then through their beliefs and perceptions. Only once these first two constructs have been impacted, can we hope to see behavior change in an individual when an opportunity to make a choice is presented.

“...research has shown that by age 12, students have an economic understanding that researchers describe as “essentially adult.”

(Jin & Chen, 2020)



In 2018, EVERFI and the MassMutual Foundation conducted a two-year study with the University of Massachusetts Donahue Institute to determine the efficacy of *FutureSmart*.

In their quasi-experimental study (Johnson, Spraggon, Stevenson, Levine, & Mancari, 2021), researchers were able to show that knowledge increased significantly for all students taking *FutureSmart* (compared to a control group) and this gain was persistent across all implementation and student-related factors, suggesting that all middle school students could benefit from the course.

However, Johnson and colleagues did not find any statistical evidence of improvement in other outcomes such as financial confidence, communication with parents, or engagement with financial systems. The researchers posited that this was mainly due to a shortened timeline for measurement. Their first suggestion was to study the impact of the *FutureSmart* course over a longer time period. The research also suggested that combining our basic education with other interventions might reinforce and solidify those learnings.

Based on these findings and suggestions, we are conducting a longitudinal study on the development of financial capability among adolescents. We are measuring the development of a cohort of students who have taken the *FutureSmart* course over a longer period. We will be measuring their financial capability to determine what impact the course has in the following weeks and months. Further, we are also incorporating all of EVERFI's financial capability courses into the curriculum for adolescents. This way, we can see the cumulative impact of several courses which build on each other and compare those students to a control cohort of high school students who are not exposed to this learning content. To our knowledge, no longitudinal study of financial capability has been conducted to measure the combined effect of several interventions designed to improve this faculty.

The intent was to evaluate a digital learning experience that spans from middle school through high school and determine its impact on a number of student outcomes including: financial capability, engagement, retention, performance, academic outcomes, college/career readiness, and parental communication. The following report lays out the findings gleaned from the data collected in the first year of this longitudinal study which included the *FutureSmart* and *EVERFI* courses.

Along with replicating the UMDI study and increasing the length of time spent measuring that impact, our research goals revolve around three main areas:

The Need for Continuous Financial Education:

We hope to gain more insight into the need for continual, engaging and developmentally appropriate financial education that creates a lasting impact on the development of financial capability. Specifically, we are interested in the additive (or possibly multiplicative) impact of engaging learners with several financial education courses provided to adolescents during a particularly sensitive window for fiscal capability development.

The Combination Of Financial Capability Resources:

We also plan to garner support for our theory that lasting change can only be generated by a combination of multiple educational courses and supplemental services over time. Our team wants to know if we can improve the development of financial capability among adolescents by not just providing education resources, but also other supports including education for parents.

Recommendations for Policy and Programming:

We will identify gaps in current educational programs and financial policies for adolescents and gain a fuller understanding of financial skill building in adolescence. Our intent is that these insights can help determine how educational programs and policies can be updated and improved for adolescents starting to learn to navigate the fiscal world.

Study Procedure

To analyze the sustained effect of *FutureSmart* as well as the cumulative effects of other financial education courses on the participants' financial knowledge, attitudes, and behaviors, each participant was randomly assigned to one of the four condition groups before the study began:

The Whole-Shebang Group:

Participants in this group will take all of *EVERFI*'s financial education courses for K12 students: *FutureSmart*, *EVERFI*, *MoneyMoves*, *Marketplaces*, *Venture*, and *Pathways*.

The Power-Up Group:

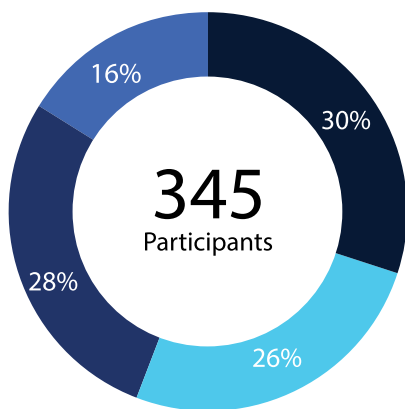
Participants in this group will take all of *EVERFI*'s financial education courses except *FutureSmart*.

The *FutureSmart* Group:

Participants in this group will take only the *FutureSmart* course.

The Essential Group:

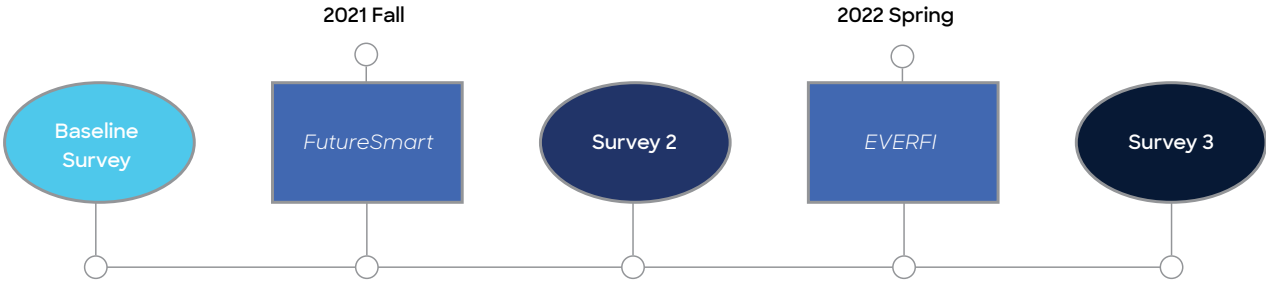
Participants in this group will not take any courses but are still surveyed.



After the random assignment, 30% of the 345 participants were in the Whole-Shebang Group, 26% were in the *FutureSmart* Group, 28% were in the Power-Up Group, and 16% were in the Essential Group.

In the summer of 2021, the participating students and parents took baseline surveys of their knowledge, attitudes, and behaviors related to financial capability. The students in the Whole-Shebang and *FutureSmart* Groups finished *FutureSmart* in Fall 2021 and the students in the Whole-Shebang and Power-Up Groups finished *EVERFI* in Spring 2022. All of our student and parent participants had to take the longitudinal surveys again after each course window.

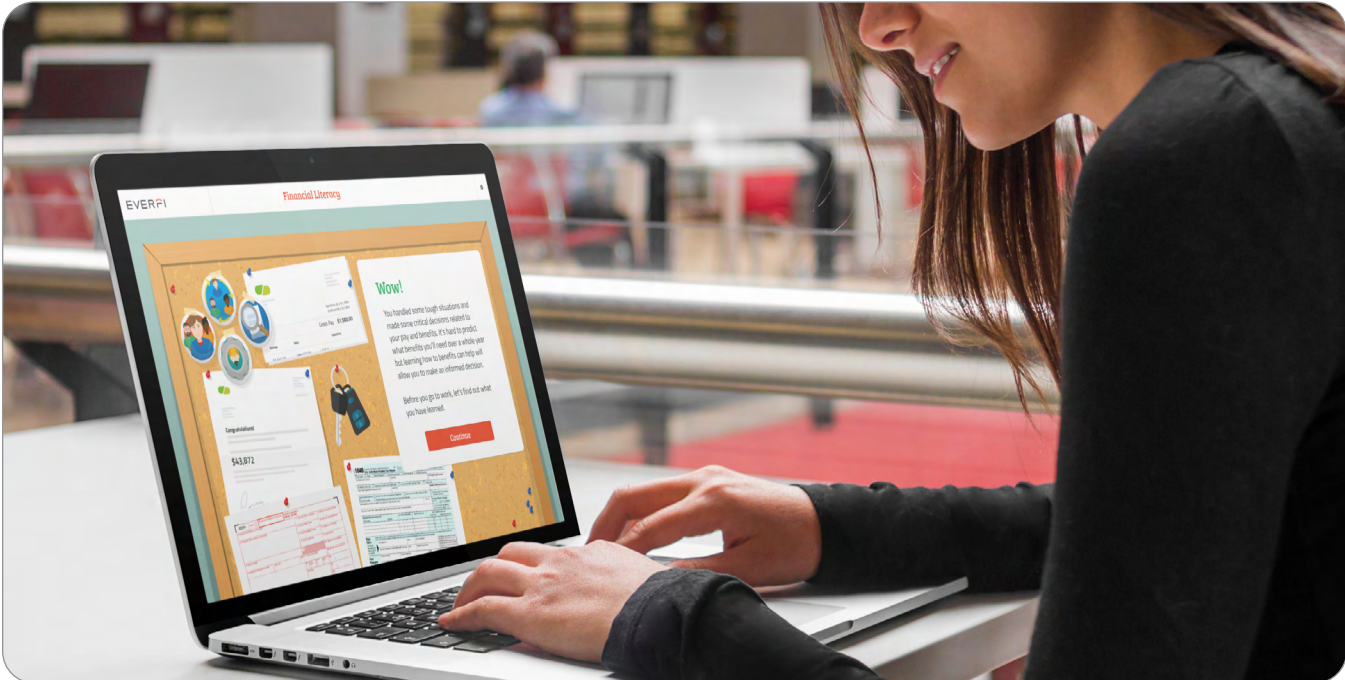
Sample Size at Data Collection Points



As of summer 2022, 88% of the participants still remained in the study. A comparison analysis showed that the demographics and baseline measures of financial knowledge, attitudes, and behaviors (KABs) of the 2022 summer sample were not different from those of the baseline sample.

Participant Sample

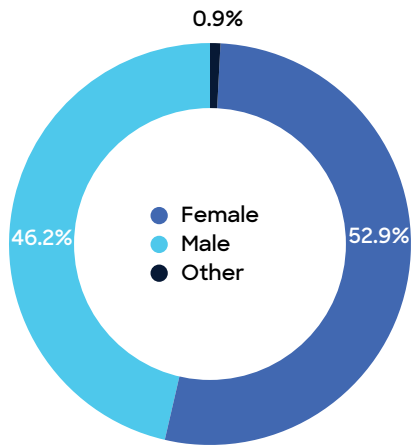
The participants were randomly selected from 567 parents who confirmed their interest in participating by submitting the sign-up form on the study web page. Each parent was allowed to sign up only one child for this study. Based on the power analysis, 345 participants (parents + children) were randomly selected so any medium-sized effect of the courses could be detected by our analysis.



Baseline Results: Student

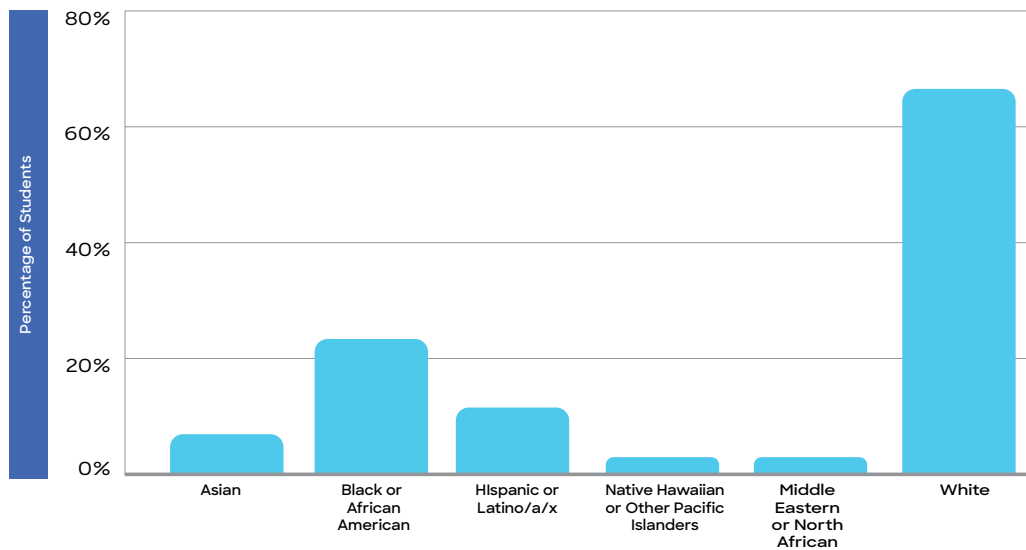
Of the student participants, 49% were in the 7th grade and 51% were in the 8th grade when the study began. There were more female participants (53%) than male participants (46%), which is consistent with the gender composition of EVERFI's K12 financial education course takers.

Gender and Grade Distribution



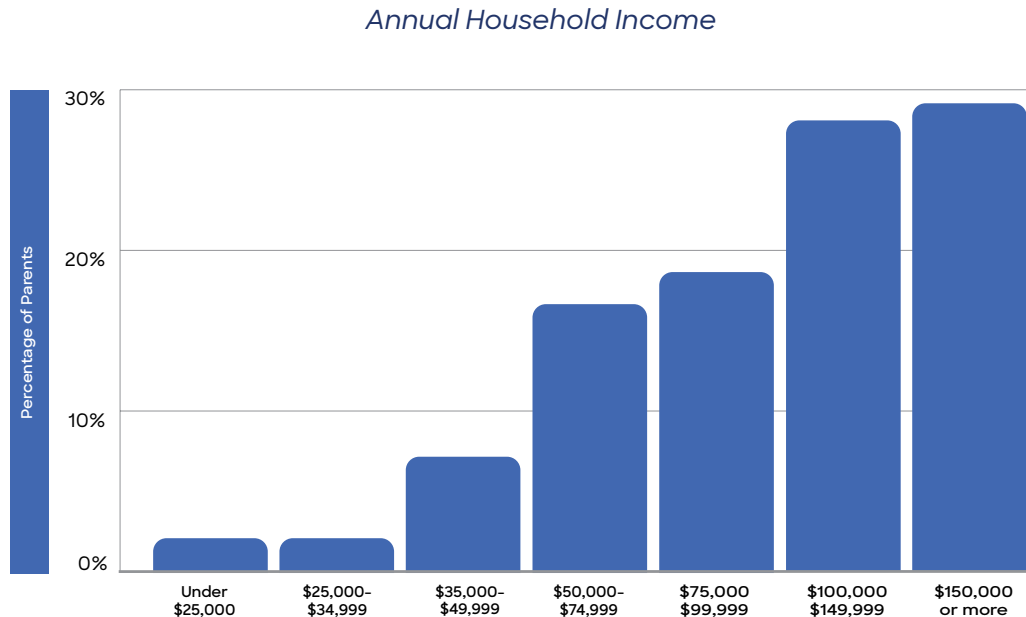
In general, the race/ethnicity of the sample matched the race/ethnicity of the general US K12 student population. While Hispanic/Latino/a/x students were slightly underrepresented in our sample, Black/African American students were overrepresented.

Race/Ethnicity Distribution



Parents

Compared to the general population, more parents in this study received a bachelor's or higher degree (88%). Their average annual household income was between \$100,000 to \$149,999 and consistent with the average household income of U.S. families with children (\$112,000). The vast majority of the participants were married or had a domestic partner (80%).



Measurement

In order to increase the generalizability of the study's findings, the students' financial knowledge and behaviors were measured by independent, research-validated questionnaires separated from the course surveys and assessments. The measurements of student financial self-efficacy and family communications on financial topics were the same as the course survey questions. The questions that students and parents answered in the longitudinal surveys gauged their financial knowledge, financial attitudes, financial behaviors and family communication.

Financial Knowledge

The financial knowledge of the students was tested using a simplified version of the *Test of Financial Knowledge for Upper Middle School or Lower High School Students* developed by the Council for Economic Education (2016). There were 19 questions covering the following topic areas:

- Jobs and Income
- Buying Goods and Services
- Saving
- Credit
- Financial Investing
- Protecting and Insuring

For the parents, a 6-item financial knowledge test developed by the Financial Industry Regulatory Authority (FINRA, 2019) was used. The following topic areas were covered by the test:

- Simple math calculation
- Interest rate
- Time value of money
- Inflation and investment return
- Risk diversification

Financial Attitudes

The financial attitude measurement for students evaluated how much confidence the students had in performing 6 essential financial tasks suitable for their age. The measurement has been used and validated in the published study conducted by Johnson and colleagues (2021). The 6 essential financial tasks measured were:

- Comparison shopping
- Choosing the appropriate payment method
- Deciding what to do after high school based on life and financial goals
- Opening/managing savings/checking accounts
- Planning financial future
- Identifying personal money value

The average of the answers to the 6 questions (1 = Not prepared at all, 5 = Very prepared) was used as the measurement for the students' financial self-efficacy. A higher score indicated the student had higher confidence in completing the essential financial tasks.

For the parent survey, the widely adopted *Financial Self-Efficacy Scale* developed by Lown (2011) was used to measure the parent participants' financial self-efficacy, or sense of their own abilities to overcome a fiscal obstacle if it arose in the future.

Financial Behaviors

Student financial behavior was measured by the frequency with which a student had a series of age appropriate healthy financial behaviors. The 4-item scale developed and validated by Despard & Chowa (2014) was adopted in this study. The behaviors measured were:

- Track monthly expenses
- Spend within a budget
- Save money
- Investing for a long-term financial goal

A more complicated measurement developed by Xiao & Dew (2011) was used to measure the parents' financial behaviors. The scale had 15 items covering a wide range of healthy financial behaviors adults would be expected to have, such as paying a credit card balance in full, having a retirement account and making financial investments. It is one of the most widely used measurement tools for adult financial behaviors. The average of the answers to the questions (1= Never, 5 = Very often) were used as the measurement for the participants' financial behaviors. Higher score indicates the participant had a higher frequency of having healthy, desirable financial behaviors.

Family Communication

One of the strongest predictors of financial capability in adulthood is the frequency of money-related conversations during adolescence (Jorgensen, Rappleyea, Schweichler, Fang, & Moran, 2017). To measure the potential impact of the courses on family communication regarding financial issues, the students and their parents were asked to indicate how often they engaged in conversations on several topics:

- Whether to spend, save, share or donate the money the children earn or are given
- Purchases the children decide to make with money they earn or are given
- Things the children would like to save for or do with their money in the next few months
- How the children plan to earn, save, spend, and give money as they grow up
- How the children will pay for college or life after high school
- Jobs and careers and how the children would like to earn a living when they grow up

The average of the answers to the questions (1= Never, 5 = Very often) was used as the measurement for family communication on financial topics. Higher scores indicated that the students and their parents had conversations about financial topics more frequently.

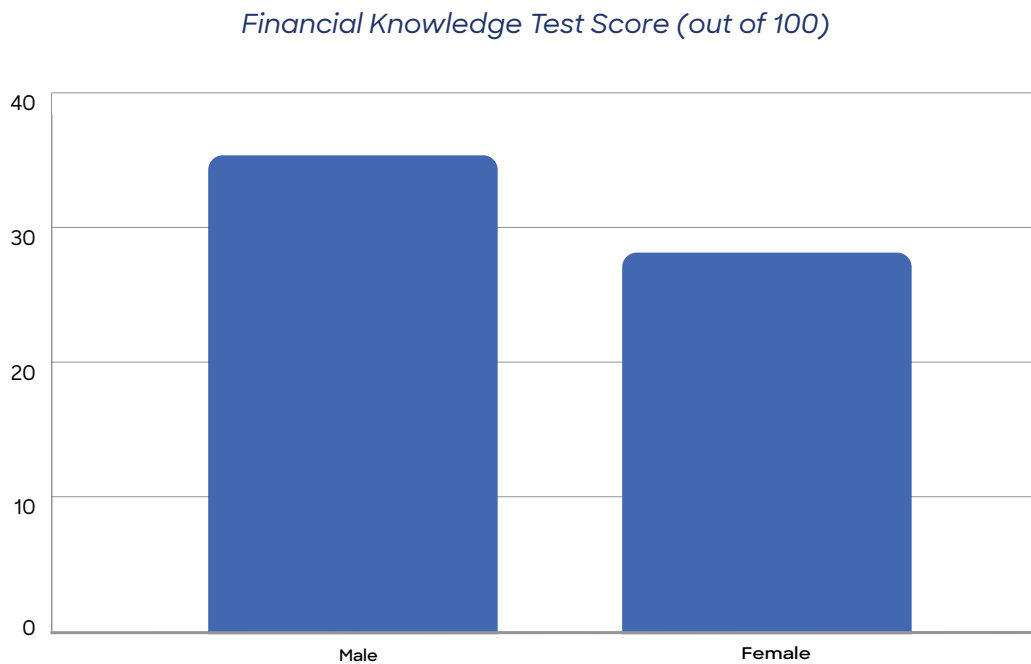
Baseline Results: Student Cohort Comparison

The baseline results showed the students' financial knowledge, attitudes and behaviors before they participated in any course in the study. Consistent with prior studies, the baseline survey showed that students in general had low levels of financial knowledge, lacked confidence in their financial skills and did not frequently engage in healthy financial behaviors. In addition, only a small proportion of the students often had conversations with their parents about personal financial topics.

The students scored only an average of 32 out of 100 in the financial knowledge test. Twenty-five percent of the students reported that they were confident or very confident in their financial skills. Only 12% of the students often or very often engaged in healthy financial behaviors and only 23% of the students reported that they often or very often had conversations with their parents about financial topics. While, in general, the students had low financial knowledge, lacked confidence in their financial skills and did not frequently engage in healthy financial behaviors, students with certain characteristics and demographic backgrounds tended to be better in their financial KABs.

Financial Knowledge

As shown below, compared to male students, female students had an even lower average score in the financial knowledge test.

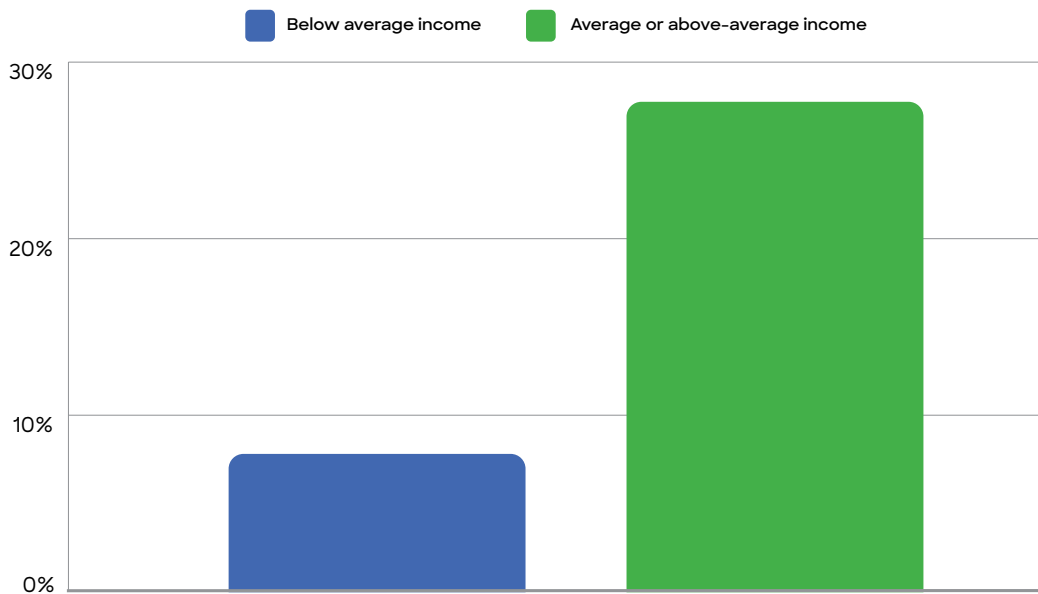


Further, students whose parents had higher financial knowledge test scores also displayed higher knowledge scores. Although 17% of the students indicated that they had taken some other financial education courses before participating in this study, the average financial knowledge score of those students was not different from that of the students who reported that they had never taken any financial education courses before.

Financial Self-Efficacy

A significant difference in financial self-efficacy was found between students from families with average or higher-than-average annual household incomes and those from below-average annual household income. While 27% of the students from families with average or above-average annual household income were confident or very confident in their financial skills, only 7% of those from families with below-average annual household income were confident or very confident.

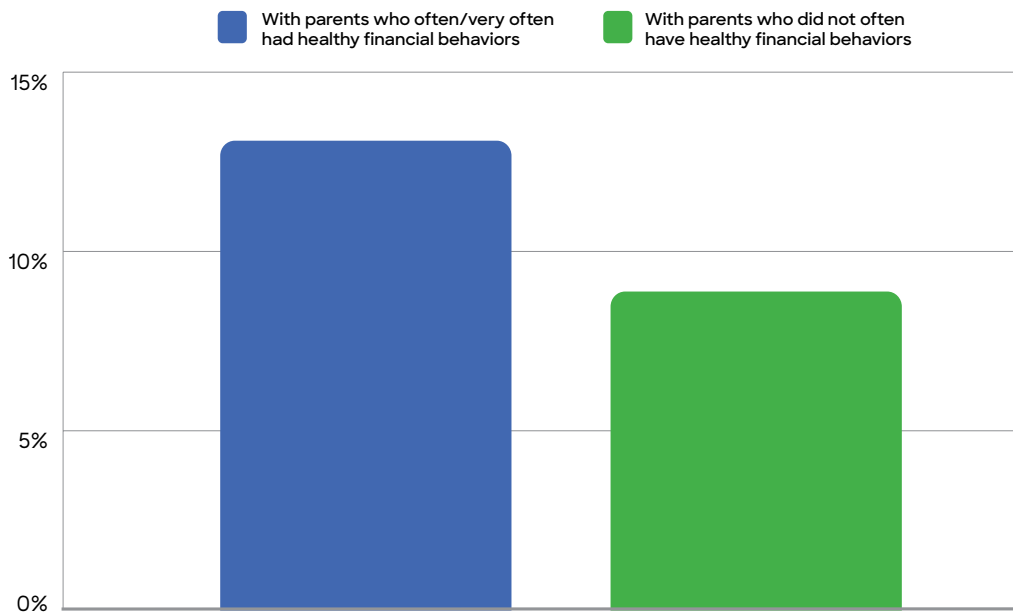
Percentage of Students Confident/Very Confident in their Financial Skills



Financial Behaviors

Parents' financial behaviors were correlated with their children. The data shows that 13% of the children whose parents frequently had healthy financial behaviors also frequently had healthy financial behaviors. However, only 9% of the children whose parents did not often have healthy financial behaviors reported the same positive behaviors.

Percentage of Students with Healthy Financial Behaviors



Financial Communication

Most students (77%) did not often have conversations with their parents on financial topics. Moreover, the group comparison analysis does not show that the frequency of communications varied according to the student demographics and parent demographics. This finding suggests that the lack of communications at home was a universal issue across all types of students.

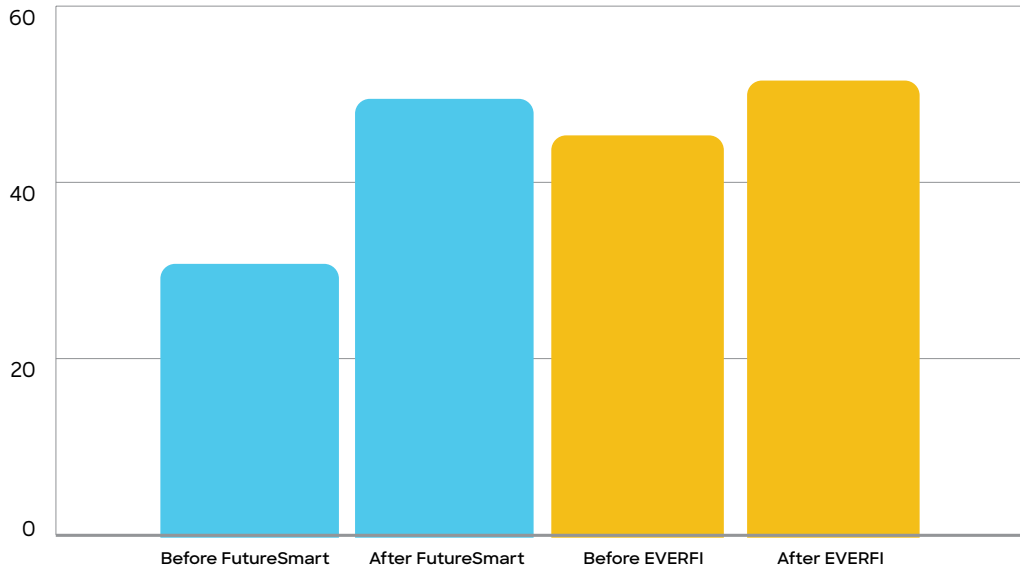
KAB Improvement

After each course, the students' financial knowledge, attitudes and behaviors were measured. Although the students started low in their financial knowledge, self-efficacy, behaviors and communications with their parents, improvements were observed after they took the courses. The improvement reported in this section is the simple before-and-after change observed. The next section summarizes whether the improvement was statistically significant and if observed improvement was greater than that of the control group.

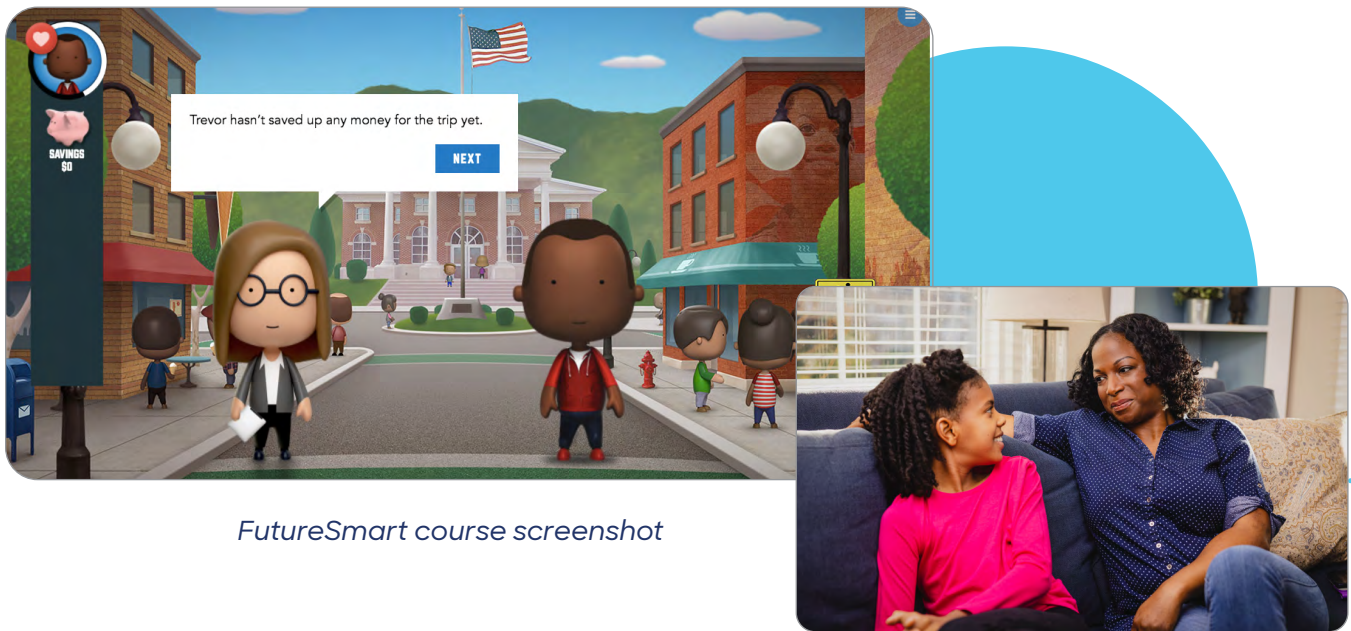
Financial Knowledge

The average financial knowledge test score for the students in the Whole-Shebang and *FutureSmart* Groups increased from 31 in the baseline survey to 50 in the post survey after they finished *FutureSmart*.

Average Financial Knowledge Scores



The average financial knowledge test score for the students in the Whole-Shebang and Power-Up Groups increased from 46 to 52 after they finished *EVERFI*.

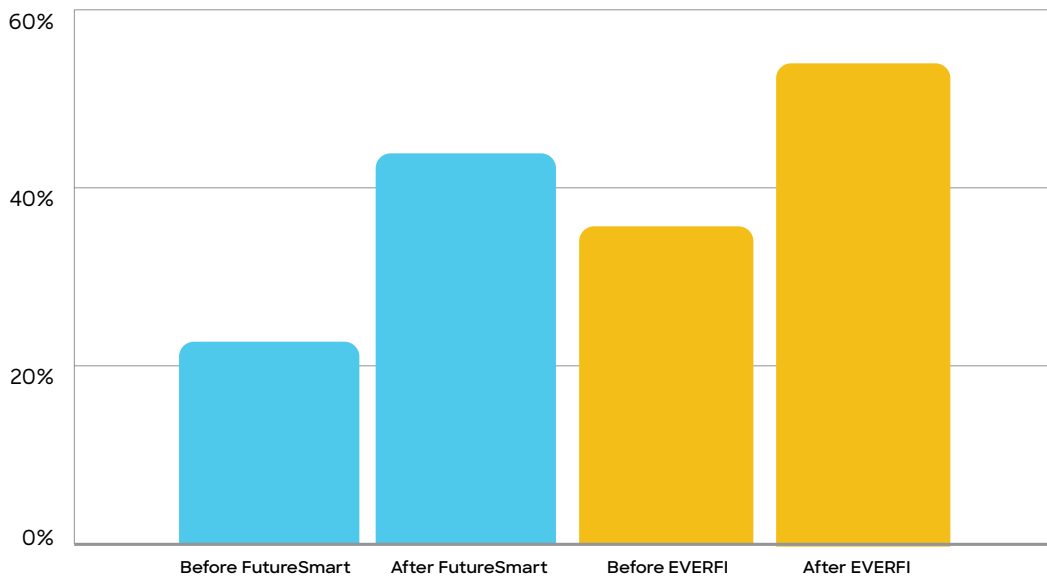


FutureSmart course screenshot

Financial Self-Efficacy

An improvement in the students' financial self-efficacy was observed after they finished *FutureSmart*. While only 23% of the students in the Whole-Shebang and *FutureSmart* Groups were confident or very confident in their financial skills, 44% of them became confident or very confident in their financial skills.

Average Financial Self-Efficacy Scores



The students' financial self-efficacy also improved after they finished *EVERFI*. Specifically, the percentage of students who were confident or very confident in their financial skills increased from 36% before they finished *EVERFI* to 54% afterwards.

EVERFI Financial Literacy

Filing Your Taxes

Now that you understand the components of a W-2, you can complete your taxes. Each year, you need to report to the IRS how much income you made and how much taxes you've paid. Once you report this, the IRS will assess if you owe additional taxes or if you're due for a tax refund.

[Next](#)

W-2 Wage and Tax Statement

Copy A For Social Security Administration - Send this entire page with Form W-2 to the Social Security Administration, phone numbers are listed above.

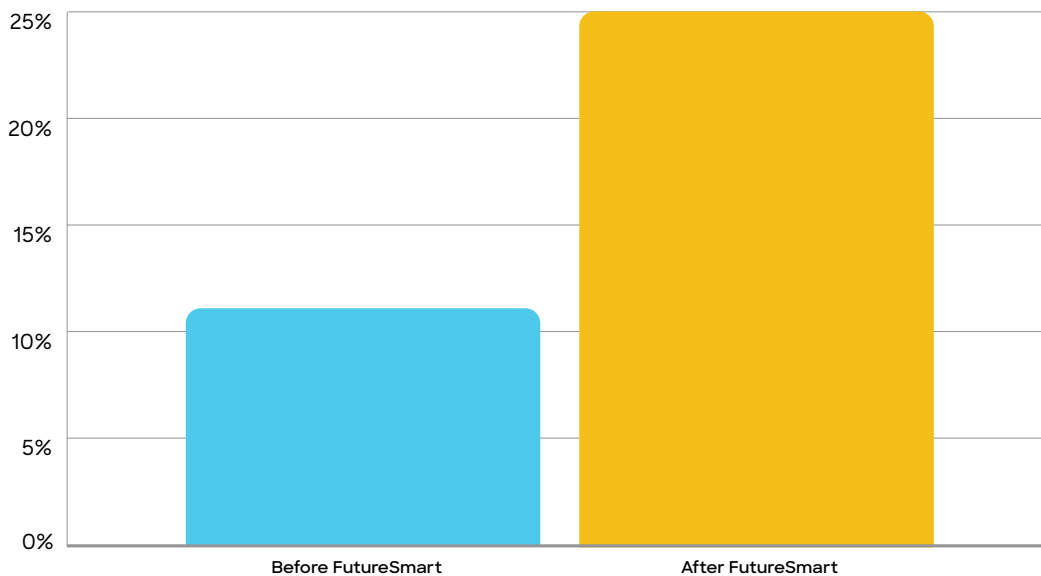
Department of the Treasury
For Primary Use in All States, see 501

EVERFI course screenshot

Financial Behaviors

The students' financial behaviors improved after they finished *FutureSmart*. While 11% of the students in the Whole-Shebang and *FutureSmart* Groups often or very often had healthy financial behaviors before they took *FutureSmart*, 25% of them often or very often had healthy financial behaviors after they took the course.

Average Financial Behavior Scores



The students' financial behaviors slightly improved after they finished *EVERFI*. While 23% of the students in the Whole-Shebang and Power-Up Groups often or very often had healthy financial behaviors before they took *EVERFI*, 27% of them often or very often had healthy financial behaviors after they took the course.

Financial Communication

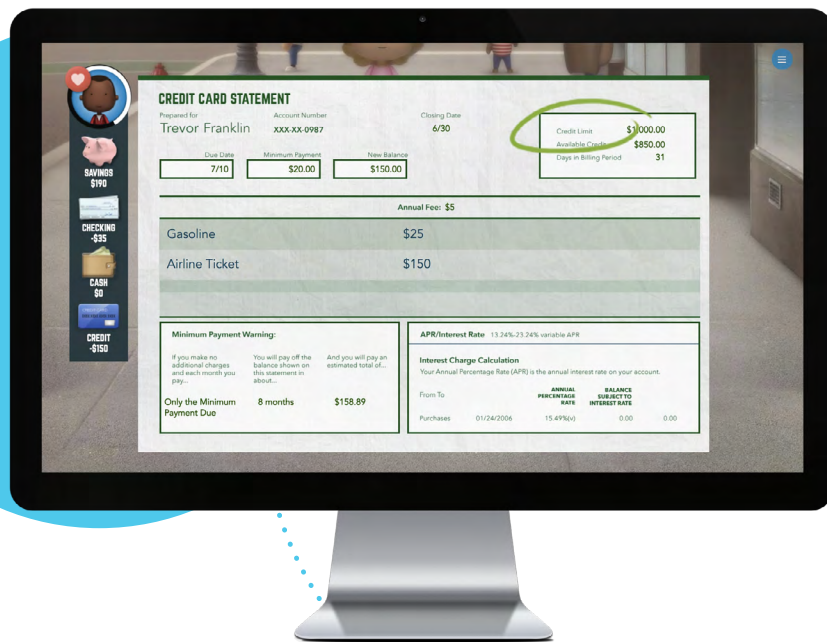
After the students took *FutureSmart*, more students reported to have frequent communications with parents on financial topics. Specifically, only 23% of the students said they often or very often had conversations with their parents on financial topics before the course, whereas 35% of the students reported doing so after they finished *FutureSmart*. After the students finished *EVERFI*, the percentage of students who frequently had conversations with parents on financial topics increased from 35% to 39%.

Efficacy Analysis

Although the financial knowledge, attitudes and behaviors of the students all improved after they took the courses, as the students age, natural changes in their financial KABs are also possible. Therefore, a rigorous efficacy analysis is needed to reveal if the courses, *FutureSmart* and *EVERFI*, had any effect beyond the natural change over time.

The efficacy analysis used growth curve modeling to analyze the effect of the courses on financial knowledge, attitudes and behaviors as compared to the natural change over time. Controlling for the effects of parent financial KABs, student demographics and parent demographics, the growth curve model estimation shows whether there were significant changes in the students' financial KABs after they took the courses. It also reveals whether they achieved better outcomes than those who did not take any courses. For this first year, we were specifically interested in whether the improvement observed after the students took *EVERFI* was greater than the natural growth over time and whether the *EVERFI* course had any additional effects on the students after they had finished *FutureSmart*.

FutureSmart course screenshot



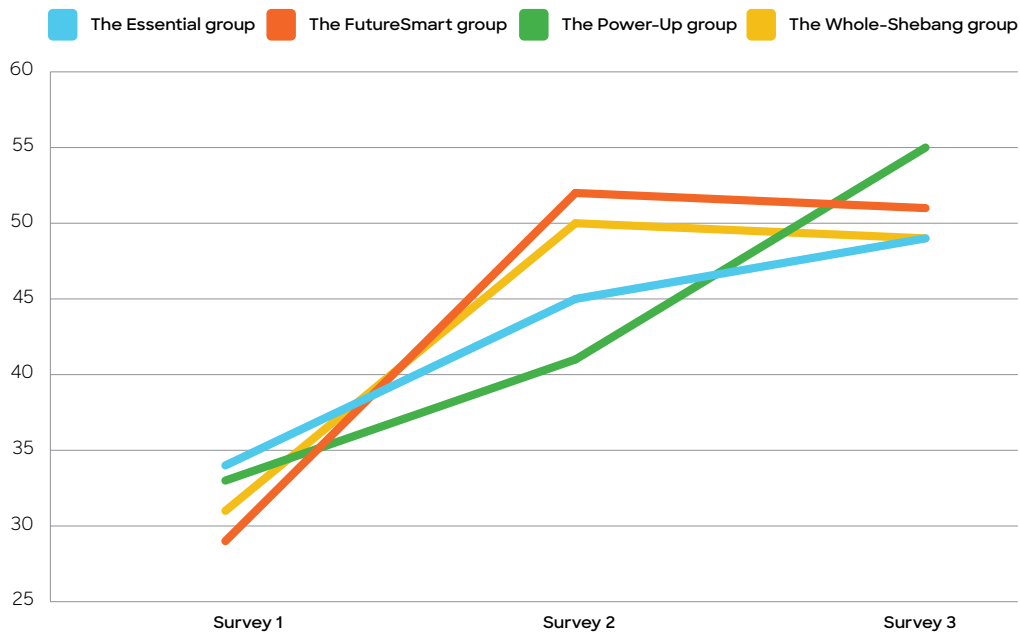
Financial Knowledge

Students in the Whole-Shebang and *FutureSmart* Groups took the *FutureSmart* course between Surveys 1 and 2 and their average financial knowledge scores increased significantly during that time. Although the financial knowledge in the Essential and Power-Up Groups (those who did not take *FutureSmart*) also improved, students in the Whole-Shebang and *FutureSmart* Groups had significantly higher average scores at Survey 2. Therefore, we can conclude that the *FutureSmart* course did significantly increase knowledge for students compared to our control group, which replicates the findings in Johnson et al., 2021.

The Power-Up Group students took *EVERFI* between Surveys 2 and 3 and their average score increased significantly. Again this was higher than the change we saw in the control group at Survey 3, so we can see that *EVERFI* also significantly increased knowledge for students. Further, students in the *FutureSmart* Group did not take any course between Surveys 2 and 3 and their average score did not significantly change over this period of time. The same pattern was seen in the control group, leading us to believe that the knowledge-based impact of *FutureSmart* likely faded after a semester without any additional intervention.

Finally, students in the Whole-Shebang Group finished the *EVERFI* course as well between Surveys 2 and 3, and it was not significantly different from the score of the control group. Combining this with our previous findings, it seems that the *EVERFI* course did not significantly increase knowledge among students who had already taken the *FutureSmart* course. Financial knowledge scores for all four groups across the first 3 surveys are visualized below.

Financial Knowledge Change Over Time, by Group



Financial Self-Efficacy

As mentioned earlier, between Survey 1 and Survey 2 students in the Whole-Shebang and *FutureSmart* Groups took the *FutureSmart* course. During this time, their financial self-efficacy increased significantly but there was no concurrent change in the groups who did not take any content. Since students in our treatment groups had significantly higher average scores at Survey 2 compared to the control group, we can infer that *FutureSmart* had a significant effect on student self-efficacy.

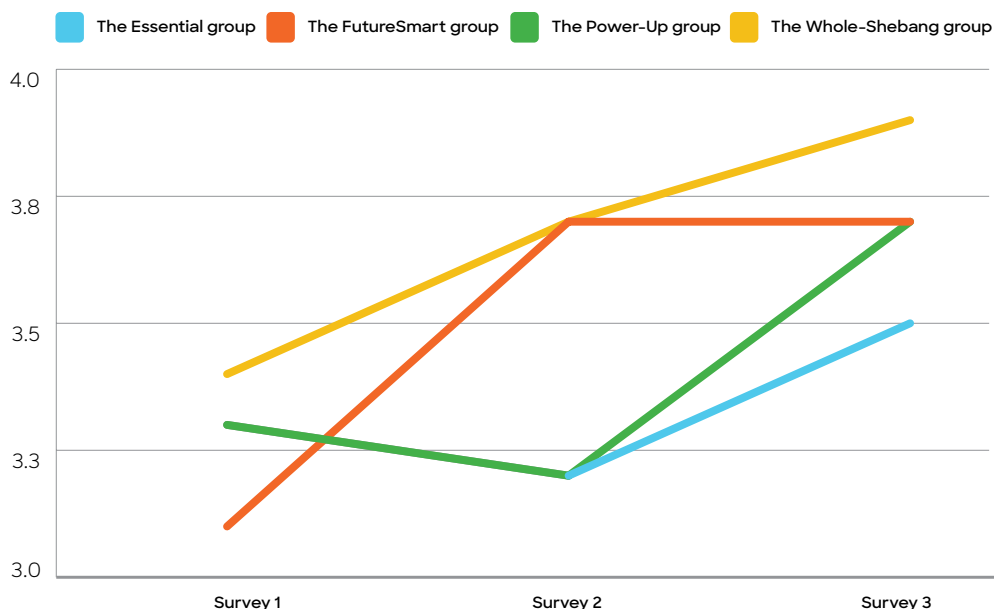


Students in the Power-Up Group took *EVERFI* between Surveys 2 and 3 and their average financial self-efficacy also significantly increased during this time period. Although the financial self-efficacy of the students in the control group also increased during this time period, the average score of the Power-Up Group was significantly higher than that of the control group at Survey 3. These findings suggest that *EVERFI* was also effective in increasing student self-efficacy beyond *FutureSmart*.

FutureSmart Group students did not take any course between Surveys 2 and 3 and their average score did not significantly change over this period of time. Since the average score was still higher at Survey 3 than the control group, we can conclude that the effects of *FutureSmart* on student self-efficacy did not diminish significantly over the course of a semester.

Students in the Whole-Shebang Group also took *EVERFI* after they finished *FutureSmart*. The analysis showed that their average financial self-efficacy significantly improved after they finished *EVERFI* and it was higher than the control group. Furthermore, the outcome for the Whole-Shebang Group was even higher at Survey 3 than that of the *FutureSmart* Group and Power-Up Groups. This finding suggests that *EVERFI* improved the students' financial self-efficacy on top of the positive effect already achieved by *FutureSmart*. Data points related to financial self-efficacy can be referenced in the graph below.

Financial Self-Efficacy Change Over Time, by Group

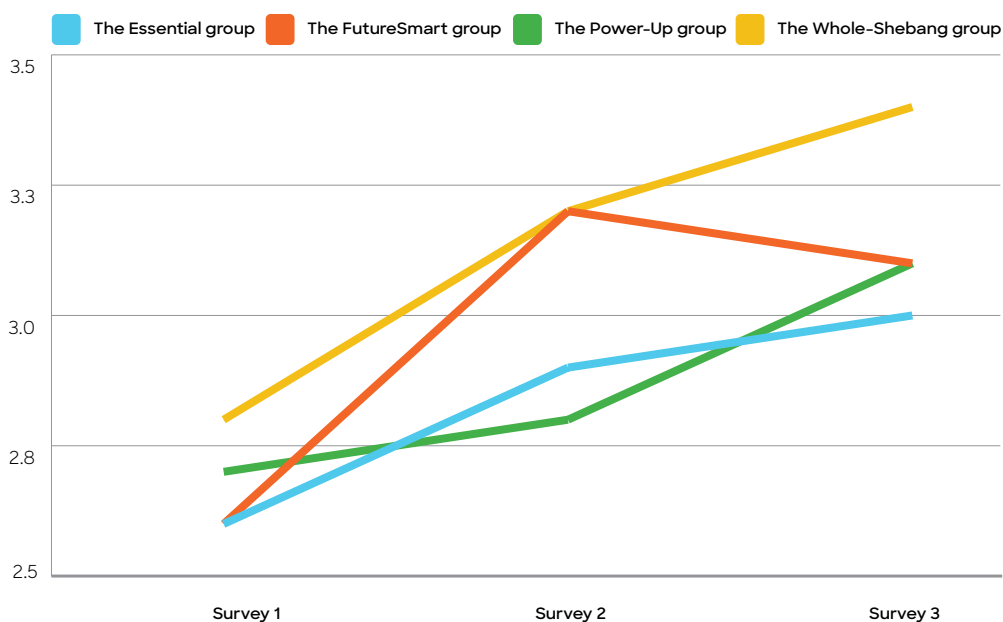


Financial Behaviors

Self-reported financial behaviors increased significantly for both groups of students who took the Futuresmart course between Surveys 1 and 2, with no significant change among those who did not take any courses. Because students in the Whole-Shebang and *FutureSmart* Groups had significantly higher average scores of healthy behaviors at Survey 2 than our control groups, we can infer that the *FutureSmart* course increased these behaviors for learners. However, because students in the Power-up Group who took *EVERFI* between Surveys 2 and 3 did not show significant change in their behaviors, it is unlikely that this course alone had a positive effect on this behavioral outcome.

Average financial behavior scores did not significantly change for students in the *FutureSmart* Group between Surveys 2 and 3 and were not measurably different from control students, suggesting that the behavioral change driven by the *FutureSmart* course had faded away without reinforcement. However, students who took both the *FutureSmart* and *EVERFI* courses had significantly higher behavioral scores at the Survey 3 time point compared to control students. From these results, we can conclude that if students took the *EVERFI* course after taking *FutureSmart*, the behavioral changes from the former course were sustained over time. Our behavioral results are visualized below for each group over the 3 survey collection periods.

Financial Behavior Change Over Time, by Group



Financial Communication

Although students reported having more conversations with their parents after they finished the *FutureSmart* and *EVERFI* courses, the efficacy analysis revealed that this change was not statistically significant and those students did not have conversations more often than those in the control group. This finding suggests that neither of the courses the students have taken so far have effectively increased familial conversations about financial capability. As the students continue to engage with more courses during this study, we will continue to measure the impact of sustained education on these types of communication between children and parents.

Discussion

Data collected from the first year of this unprecedented study of the development of financial capability has already provided researchers with a plethora of insights and spurred even more questions for potential investigation.

First, both the *FutureSmart* and *EVERFI* courses were shown to uniquely contribute to financial knowledge gain for students, compared to a control group. This is an excellent finding as we believe that financial capability is best developed through the Knowledge, Attitude, and Behavior (KAB) Model of learning. We did not find, however, that the two courses had an additive effect on knowledge gain. If a student had already taken the *FutureSmart* course, the *EVERFI* course did not further increase their financial knowledge. This is likely due to the large amount of overlap in content between the two courses, as both focus on very rudimentary aspects of financial literacy such as: budgeting, saving, payment methods, and planning for future expenses. In future years, we expect to see more additive impacts on student knowledge gain when course content is more unique and complex.

Financial self-efficacy was also significantly improved by both the *FutureSmart* and *EVERFI* courses in our experimental design. Furthermore, the *EVERFI* course continued to improve this outcome above and beyond the effect of *FutureSmart* alone. This additive impact on the improvement of financial self-efficacy for students is especially encouraging as we have seen from our course survey responses that in spite of increasing usage of financial products from middle school to high school, the students' self-confidence in their financial skills did not improve accordingly in this critical period. Along with knowing what behaviors to engage in and where to allocate resources for success, financial health depends partially on a learner's individual sense that they can overcome a fiscal obstacle should it present itself in the future. Research shows that one of the best ways to improve this perception is through practice in a consequence-free environment (Kaiser, Lusardi, Menkhoff, & Urban, 2022). Both courses are ripe with opportunities for the learners to test out their skills in personal finance management within the educational experience and it seems as though they are uniquely and additively beneficial for improving self-efficacy among our students.

In regard to reported financial behaviors, *FutureSmart* had a significant impact on learners compared to our control group. This is quite encouraging as the research conducted by Johnson et al. (2021) did not find a measurable effect on students' attitudes or behaviors and the researchers thought this may be due to the relatively short time frame in between measurements in their study. After improving our attitudinal and behavioral measures and increasing the length of time between the course experience and data collection, we were able to show that the *FutureSmart* course did have an impact on students beyond just knowledge gain. Unfortunately, our study did not find that the *EVERFI* course alone had a significant impact on students' reported financial behaviors compared to a control group. However, if the students had already taken the *FutureSmart* course, the *EVERFI* experience helped to maintain the behavioral gains of students over the course of a few months. If the students only took *FutureSmart* but not *EVERFI*, the behavioral change they achieved after the *FutureSmart* course faded away within one semester. This impact is critical as our data shows a major increase in adolescents engaging in financial behaviors as they transition from middle school to high school and we hope that with continuing education, these behavioral trends will become behavioral patterns. Researchers believe that long-term behavioral change is unlikely to be sustained from only a brief interaction with content

and that continued intervention is necessary to support movement in the desired behavioral direction.

Sadly, we were not able to measure any effect of either the *FutureSmart* or *EVERFI* course on the frequency of fiscal conversations held in the home. While the digital interventions were successful in shifting KABs for learners directly, there was not an indirect effect on the family communication dynamic. Hopefully, we will see an eventual increase in family communication about financial capability as a result of multiple course experiences or at least a mitigation of the drop in family communication we have witnessed in our own data as adolescents begin their high school careers. It is possible that increases in financial behaviors and responsibilities for students will help to spur on more discussion in the home in future years.

Our first year of data collection in our study was successful nonetheless in not only replicating the results found in earlier studies of *FutureSmart* (Johnson et al, 2021), but also expanding those findings and duplicating many of them for the *EVERFI* course. Specifically, it was quite compelling to find long-term behavioral change as a result of our financial capability education and we could not have not captured that finding using any other approach. We look forward to what the following years will bring us in terms of providing answers and also spurring new research questions. Specifically, in Year 2 we will be focusing on how the impact for students is sustained over a longer time frame, how we can build on foundational knowledge with more complex content with more direct behavioral objectives, and how KABs outcomes can be improved with courses that have less overlapping content.

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