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# Financial Literacy Seminar: An Exploration of Financial Literacy Education in Ohio

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An Exploration of Financial Literacy Education in Ohio

Honors Research Project

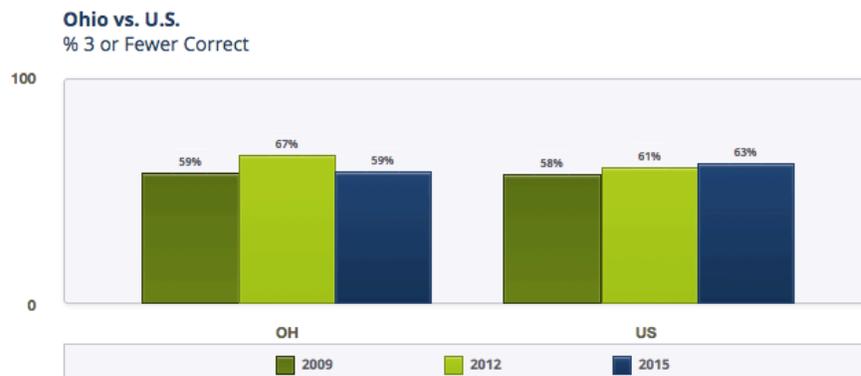
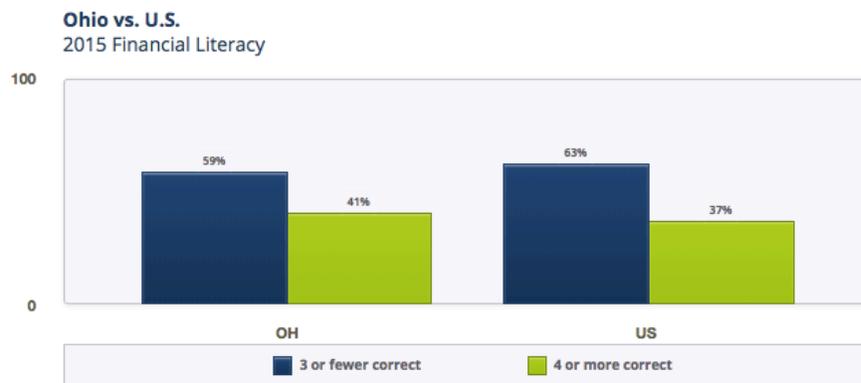
MarySarah Menkhaus

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Financial Literacy Seminar

**Introduction**

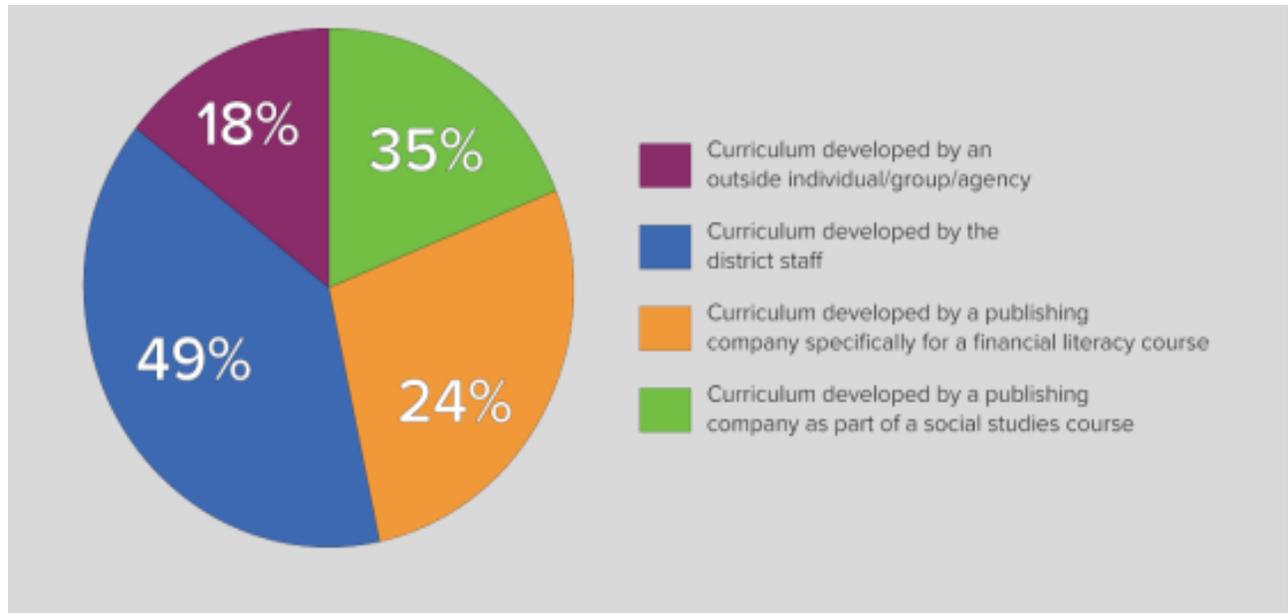
Personal Financial literacy in the United States is a subject of concern for many Americans. In 2015 the Financial Industry Regulatory Authority (FINRA, 2016) conducted the National Capability Study, which surveyed 27,564 Americans about aspects of economics and finance that a person would deal with in their day to day life. FINRA found that, “Americans demonstrate relatively low levels of financial literacy and have difficulty applying financial decision-making skills to real life situations” (FINRA, 2016). Study participants were asked five questions that covered aspects of economics and finance encountered in everyday life, such as compound interest, inflation, principles relating to risk and diversification, the relationship between bond prices and interest rates, and the impact that a shorter term can have on total interest payments over the life of a mortgage. Of Ohioans surveyed, 59% were unable to answer more than three of the five questions regarding financial literacy correctly as seen in figure 1 (FINRA, 2016).



*Figure 1.* Financial literacy: Ohio v. U.S. From “Ohio Survey Data at a Glance.” FINRA Investor Education Foundation (2016).

The National Financial Educators Council (NFEC) measured participants’ ability to earn, save and grow their money. In 2017 the average score for 15 to 18 year olds was a 62% percent, just over half of the questions correct (National Financial Educators Council, n.d.). In Ohio that average was slightly lower at 60.32% (National Financial Educators Council, n.d.). Financial illiteracy not only affects the individual person, but the country as a whole. Steps must be taken to educate citizens in financial literacy. Erin Mitchell, a student intern for NFEC makes the point that, “Making members of our community financially knowledgeable will improve the world as a whole” (National Financial Educators Council, n.d.). As America requires that students go to school until they are eighteen, the easiest way to educate Americans in financial literacy is by requiring it in school curriculum.

The state of Ohio, “requires high schools to provide instruction in economics and financial literacy in a stand-alone course or within another course such as social studies or mathematics” (Mckean, 2018). Despite the integration into the curriculum, “a 2009 national study found that K-12 teachers are not confident in their ability to teach financial literacy” (Way, 2009). Prior knowledge and attitudes of the teachers instructing on financial literacy are absolutely critical as found in prior studies (Lucey & Giannangelo, 2006). Not only were teachers not comfortable teaching financial literacy, but there is a wide variance in the way that instruction can occur in Ohio. Some districts in Ohio require students to take a standalone financial literacy class whereas some integrate it into a social studies or mathematics course (Mckean, 2018). Figure 2 gives a representation of the diverse curriculum use in Ohio schools:



*Figure 2.* Pie chart of types of financial literacy curriculums used in Ohio. From Ohio High School Financial Literacy Education Survey. Lewis, M., Craycraft, H., & Strahan, N. (2015, Winter).

“In 2012, the State Board of Education approved Ohio’s Learning Standards in financial literacy to assist Ohio districts in fulfilling this requirement. These standards include 27 content statements that define essential knowledge and skills” (Mckean, 2018). The topics within the standards include financial responsibility/decision making, income and careers, planning and money management, consumerism, investing, credit/debit and, risk management and insurance. The state of Ohio allows districts to make the decision of how to incorporate these learning standards into the curriculum.

Clearly, strong financial literacy is needed for students and the current attempts to integrate literacy into the curriculum can leave some students behind, based on the scores of financial literacy tests cited above. Studies have shown that elementary school children can grasp basic concepts such as savings, barter, scarcity, and supply and demand (Sherradan, 2011). Recent research also “demonstrates that young people begin to form financial identities early and that those identities are correlated with financial capability later in life” (Shim, 2013). With more research coming out about the benefits of starting education early it is important to start exposure early

### **Purpose of Study/Project/Event**

In the Spring of 2017 The University of Akron hosted a financial literacy event called Financial Literacy Day at UA (FLDUA) with the cooperation of Akron City School District. North High School (NHS) in Akron was selected to participate in the financial literacy seminar. The purpose of the event was to give students a solid understanding of the basics of financial literacy that would help them become good stewards of money, and to encourage students to start saving for future endeavors, even as freshman in high school. Based on the research that shows young students are able to understand financial literacy as well as the need for early education, freshmen were selected for the event (Sherradan, 2011).

The goal of FLDUA was to start the process of creating financially independent high school graduates. The event had an additional goal of providing the students with information about where to find further information, resources, and training through keynote speakers, games, and engaging activities.

A FLDUA planning team was created to organize and plan the seminar. The core planning team consisted of three individuals, including me. There was a logistics chair, a financial advisor chair, and my role of educational advisor/school and community outreach. My role on the team included various responsibilities. My first task was to gather background information about NHS high school. I then helped develop the curriculum for the day. The decision was made to find financial professionals to teach the content so, I researched information and found professionals in the community to partner with. During the event I observed and documented how the material was taught. Finally, I developed a pre and post survey (Appendix A) to find out if the students felt more confident about their personal financial literacy. This was so that the event could continue in the future and be an endeavor that benefits

the students and the greater Akron community. As a future educator I was also looking forward to more experience working with a school district.

### **North High School Background**

North High School (NHS) is located in Akron, Ohio and is a public school in Akron City School District (Akron CSD) with about 830 students. NHS had low scores on their state report card with an F in Achievement, Gap Closing, Graduation, and Progress. NHS scored a B in Progress. Roughly half of the students who attend NHS are from refugee families, largely Bhutanese (Schultze, 2017). NHS faces different barriers and challenges but is working towards success for the students.

Of the students enrolled at North High School, 41% are Asian, 32% are African American, 7% are Hispanic, 16% are white, and 4% are two or more races (The Student Body at North High School in Akron, OH, n.d.). Census information shows 27.7% of 18-year-olds and younger who live within NHS district lines live below the poverty level. Median household income is about \$35,038 a year (Data Access, 2010). Of the students attending NHS, 80.4% are eligible for free or reduced-price lunches and 85.7% of public schools have Title 1 status because of the high percentage of students from low-income families (Zip Code, 2016). The extra financial assistance is to aid the school in meeting the state standards.

NHS, like all Ohio districts, is required to teach financial literacy to all of their students, but it is not introduced until junior year, and has traditionally been integrated into another required class. At the financial literacy event, part of the purpose was to utilize community resources to give the students a head start that they would not get otherwise.

The challenge for NHS is not only to assure that students meet the financial literacy learning standards, but also to prepare students to be successful post-graduation. Because of the high levels of poverty and large number of refugee students, NHS must prepare its students with more living skills than the average school because they might not have the opportunity to learn them elsewhere.

### **Layout of the Day/Curriculum**

When deciding what to have as part of the curriculum for the financial literacy seminar, the demographical information provided a strong basis of understanding for what content the students and community needed. Given the history of generational poverty, there were areas identified that needed to be addressed. One of the event planners is a financial planning major, and she provided insight on what a financially stable individual possesses. After gathering all of the information and reviewing Ohio's Learning Standards, the group decided on three categories to use to build the curriculum: Budgeting, Investing, and Making Good Decisions. Based on these categories, learning objectives for each session were drafted:

#### **Budgeting**

- By the end of this session, students will be able to plan a monthly budget based on income and expenses.
- By the end of this session, students will be able to recognize the impacts that small purchases have on future wealth.
- By the end of this session, students will be able to recognize the value of self-control in relation to long-term financial planning.

- By the end of this session, students will be able to recognize the differences between purchases of need and purchases of want.

### **Investing**

- By the end of this session, students will be able to recognize how investing money in the present becomes more valuable in the future.
- By the end of this session, students will be able to calculate the rate of return for \$100 bearing a 10% interest rate for a given time period.
- By the end of this session, students will be able to create a list of at least 3 practical ways they can start to invest their money.
- By the end of this session, students will be able to identify more effective ways to invest than a savings account.

### **Making Good Decisions**

- By the end of this session, students will be to explain the difference between a debit (checking account) and a credit card.
- By the end of this session, students will be able to explain the liability associated with credit cards.
- By the end of this session, students will be able to recognize the differences between purchases of need and purchases of want.
- By the end of this session, students will be able to explain when one would use a savings account and when one would use a checking account.
- By the end of this session, students will be able to articulate the consequences of making a purchase with a high interest rate.

- By the end of this session, students will be able to explain why continued education in financial literacy is crucial to long-term financial growth.
- By the end of this session, students will be able to recognize the impacts that small and large purchases have on future wealth.
- By the end of this session, students will be able to name at least 1 resource available to them to assist in financial growth.
- By the end of this session, students will be able to identify the most economically smart decision when faced with multiple options.

There was a panel at the end of the day that featured community members who were available to answer questions from the students and give any wisdom and advice that they thought would assist the students.

The FLDUA team made the decision to have the main sessions run by professionals within the finance world. The team wanted the educators to have had prior knowledge and good attitudes regarding the content; both qualifications are critical for student learning as cited earlier. The goal was to find diverse professionals who would engage and relate to the students. An African American male and female, and a single mother were invited to participate in the panel, so students could see that people from all backgrounds could be financially successful.

### **Pedagogical Methods Used**

The presenters who taught the sessions were S.G., B.G. and M.S. S.G. is the founder of a global non-profit organization that provides youth access to economic and financial education. S.G. taught the budgeting session. B.G. is the owner of a car dealership and taught the investing session. M.S. is a financial advisor at a wealth management company and taught the Making

Good Decisions session. Each presenter had a different method for teaching in order to accomplish the learning objectives.

S.G. is full of energy and has ample experience teaching high school students about financial literacy. He runs an organization that is aimed at eliminating financial illiteracy from the planet. During the session, S.G. utilized a facilitator method to teach the students. He brought along games and each student worked within groups on the games. The games were engineered to lead to understanding of how to come to budgetary success. Throughout the session, S.G. would explain how the game translated into the real-world scenarios. This session engaged each student and enabled them to think for themselves. The students were laughing and involved and asking questions. They left the room talking about how they were going to put to use what they learned.

The game that S.G. engaged the students in involved the students starting with a certain amount of money. They each needing to make financial decisions throughout the game. They had to think ahead about a monthly budget and plan in order to do well in the game.

S.G. tied in the objectives in this game by making a realistic depiction of planning, choices and emergencies that are all a part of personal budgeting. Students also had the opportunity to make choices based on pleasure and want and had the opportunity to see what effect those purchases had on long-term savings in the short amount of time that the session was. S.G. used different parts of this game with the students as opportunities to teach them how to make the best decisions using logic.

B.G. utilized a storytelling technique as well as some interaction with the students through questions. B.G. told his own story of how he became successful financially and what he had been able to do in order to capture the attention of his audience. Because the students knew

B.G. could hold the key to financial success, they were a captive audience. He broke down the complex investing concepts into more digestible concepts that the students could understand and explained how they applied to the bigger picture. His session cleared misconceptions about investing and made students eager to attempt investing.

B.G. met the objectives by going through them each and talking about them. He used his personal story to explain how investing money in the present makes it more valuable in the future. He also had a chart and statistics to back up his personal story. He had the students practice calculating the rate of return on different amounts of money and different time periods. He talked about the difference between a savings account and investing. Finally, B.G. had students write down three investment goals at the end of the session.

M.S. utilized a lecture style method in his instruction. He had a PowerPoint prepared and presented the information to the students and then asked questions to ensure that the students understood the information. If they did not do well answering his questions, he returned to the concept he was teaching and explained it a different way. The students were not engaged in this session and had to be constantly reminded to stay off of their phones and not talk with their neighbors. He gave out various pieces of literature and a note taking sheet to keep the students engaged and ensure they had things to look at after the session.

M.S. came in with a presentation and curriculum on making good decisions that had been developed by SS&G Wealth. All of the information necessary for students to meet the objectives could be found within the presentation however there were many objectives for a short amount of time. M.S. chose to ask questions about the credit card objectives, and the impact that small and large purchases have on future wealth. He did this by asking recall questions and practical questions.

### **Pre-Test/Post-Survey Questions and Logic**

The purpose of the pre and post-survey was not to test whether or not the objectives were met. The leadership team was aware that the high goals set would be difficult to achieve in a one-day seminar. The team put the objectives in place to ensure that the presenters had measurable objectives with which to plan their presentations. One of the goals of the team was to ensure that the event was sustainable. It was decided that the survey would be to evaluate how the students felt the day was, and to measure their comfortability with the topics so that improvements made the next year were based on student feedback. The survey was also utilized to see if, according to the students' self-evaluation, there was any significant improvement. This was a gross evaluation, but it gave information about what the students felt was relayed most effectively. See Appendix A for the survey.

A two-tailed p-value analysis was performed on the before and after responses for each question. The reported p-values were expected to be less than 0.05, making the difference between the before and after responses statistically significant. A p-value of less than 0.05 means that the null hypothesis is false and the before and after scores were statistically different. See Table 1 for the averages of the pre-test and post-survey and significant statistical differences between the scores. Questions 1, 2, and 3 correlate to the budgeting objective. Questions 4,5, and 6 correlate to the investing objectives. Questions 7, 8, and 9 correlate to the making good decisions objectives.

Table 1:

| Question Number                    | Before Average | After Average | P-Value            |
|------------------------------------|----------------|---------------|--------------------|
| 1 ( <i>budgeting</i> )             | 3.14285        | 3.85416       | .0000453747        |
| 2 ( <i>budgeting</i> )             | 2.954887       | 3.739583      | 0.00000062339      |
| 3 ( <i>budgeting</i> )             | 3.503759       | 4.1354166     | 0.000101459        |
| 4 ( <i>investing</i> )             | 2.4736842      | 3.78125       | 0                  |
| 5 ( <i>investing</i> )             | 2.812030075    | 3.864583333   | 0.0000000226814350 |
| 6 ( <i>investing</i> )             | 3.022556391    | 3.989583333   | 0.0000000029445489 |
| 7 ( <i>making good decisions</i> ) | 2.616541353    | 3.739583333   | 0.0000000019499906 |
| 8 ( <i>making good decisions</i> ) | 3.255639098    | 4.0625        | 0.000004255132187  |
| 9 ( <i>making good decisions</i> ) | 2.939849624    | 3.885416667   | 0.0000000418888375 |

### Analysis of Data

For every question in the pre and post-survey, there was a significant statistical difference, meaning that the students self-perceived comfortability with the topics increased in every level of financial literacy that was taught. Questions 4,5 and 6, which measured investing, had the strongest significance and all fall within the investing category. This shows that the student perceived comfortability for this topic rose the most. There are multiple reasons why these could have been the results. The comfortability level for the investing category had a slightly lower average for the pre-survey. The average was roughly 2.7 while the average of the making good decisions questions was slightly higher at 2.9. The students likely had less exposure

to investment previous to the seminar. With lower comfortability levels to begin with the, scores might be more likely to rise than in a category they had more experience in and exposure to.

The presenters were different for each section and utilized different methods to teach each topic. If the students felt that some teachers communicated real life applications better than others they might be likely to rank their comfortability higher because they would feel more comfortable solving practical tasks. Without the practical applications they would not understand how the information could be applicable to their life and they might be uncomfortable with it.

According to the self-perceived and self-reported comfortability levels of the students the comfortability level did rise. A conclusion can be made that exposure to financial information might cultivate a higher comfortability level with financial literacy. Data had the inability to assess what kind of pedagogy students are most responsive to.

### **Limitations**

The study had various limitations including the survey used to evaluate the seminar, access, and fluency in language. The study limitations prevented a thorough analysis of the event and survey. Some limitations were due to oversights and poor timing, while others were less preventable.

The survey did not take into account any variables such as the English Second Language students' ability to understand the questions. In addition, their cultural background and the effect that might have had on their understanding of the questions was not considered. The translators were not spoken to, to ensure that nothing was lost in the translation.

The measure used to collect data on the subject did not give the ability to thoroughly analyze the results of the day. The survey results were self-reported data. Given that the students

had only one day of exposure to the material at hand, their self-perceived comfort levels were not a strong measure of whether or not the material was learned.

None of the questions in the survey addressed the methods that the teachers used in teaching the topics. This limited the survey results as no conclusions about what pedagogical methods were most effective could have been drawn.

The FLDUA planning team did not obtain permission from The University of Akron Institutional Review Board for the Protection of Human Subjects to survey or test the high school students further. Once the planning team realized that the survey would not adequately measure objectives or pedagogy it was too late to request permission for a better survey or test.

The survey did not ask the students to complete any specific problems to demonstrate what they learned so it was left unknown whether or not they could apply the skills. The objectives were not specifically measured through the pre and post survey. The survey was only based on their own perception. Therefore, the test is a gross measure of the comfortability they gained and is aimed to help improve the seminar for years to come. In the future those planning and hosting FLDUA should plan to have a pre and post-test for students that measures the objectives being taught as well as what pedagogical style is most effective for teaching personal financial literacy.

### **Evaluation of Personal Growth as a Future Educator**

As a future educator I gained valuable insight on how to interact with schools to accomplish a major project and learned new ways to engage students on salient topics. By communicating with teachers, principals, community members and businesses, I learned that the background planning for such a major event is extensive. As an educator I will want to be involved in connecting the school and the community. The insight that I have gained from this

experience regarding the processes needed to make those connections will expedite the process, so I am not left guessing in the future.

While my licensure area, Integrated Language Arts, is not one that will typically involve financial literacy, planning the seminar gave me experience that will be advantageous in the classroom. Navigating objectives and standards and planning instruction that adheres to these criteria while still being creative and engaging is a skill that is necessary for teachers. Watching the presenters for the day take different approaches for similar topics showed me what instruction can possibly look like in the classroom. There is not a catchall model. Each method engages different students and is useful for different types of information. I plan to use varied instruction in my classroom and watching it in action helped me understand what implementation could look like.

The practical skills planning this seminar gave me were invaluable, but the most important part was how it taught me to engage the students. As I watched the seminar, I realized that if the students did not see any real-world applications or felt the topic was irrelevant they would not pay attention. When the students saw that a presenter was passionate and cared about their well-being they listened more readily. Even for a short day-long seminar, having a sort of relationship with the students is crucial. I will make sure that my students know they are cared about and that they know why they are completing a given task.

### **Conclusion**

The Financial Literacy Day at UA was a step in the right direction towards providing further education to American students on personal financial literacy. Previous research proved that earlier exposure to financial literacy creates more financially literate citizens. The FLDUA pre and post-survey show that exposure may provide more comfortability with financial literacy

topics. As students become more familiar and comfortable with personal financial literacy, they will hopefully be more inclined to continue learning the information and spreading it to their community.

This project benefitted those involved and the goal is to encourage students to share what they learned with their community as well, magnifying the effects. The seminar was created to be a sustainable effort to improve financial literacy education and with further study and work will produce financial literate citizens.

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## Appendix A

## Pre and Post Survey

On a scale from 1 to 5 how comfortable are you with the following topics/accomplishing the following tasks: (1: *no comfort*, 2: *little comfort*, 3: *neutral*, 4: *comfortable*, 5: *very comfortable*).

*Budgeting:*

1. Planning a monthly budget.
2. Prioritizing daily purchases
3. Planning and saving for large purchases (i.e. a car, college etc.)

*Investing*

4. The concept of compound interest.
5. Calculating the rate of return of money
6. The difference between investing your money and placing it in a savings account

*Making Good Decisions*

7. The concept of a credit score
8. The difference between a credit card and a debit card
9. Knowing resources that will provide further education on financial literacy

\* *The test that was given to the students did not break the questions into the three categories.*