



INCREASING ENGAGEMENT OF THE DOLLAR SCHOLAR ONLINE PROGRAM

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ABSTRACT

A lack of financial literacy is a problem that has profound impact on an individual's long term wellbeing and access to it is characterized by racial and gender disparities. To address these issues, organizations such as the Women's Initiative of the United Way have sought to bring financial literacy training to under-served groups. The Women's Initiative's Dollar Scholar program teaches financial literacy skills to 10-14 year old girls through in person and virtual mediums. The goal of this project is to analyze the engagement of their online curriculum and to create recommendations in order to improve the efficacy of the Dollar Scholar program, in order to help the Women's Initiative achieve its goal of reducing domestic violence among young girls through financial literacy.

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BACKGROUND

Lack of Financial Education

Financial education plays a critical role in the foundation of financial success. The family environment has a major impact on the education and development of financial practices. Based on the parent's financial literacy knowledge their role in the direct engagement of young adults in learning about monetary issues can be positive or negative.

When parents discuss financial decisions at home, it can have a positive influence on the financial attitude of children. Mimura, et al. (2015) found that when parents consistently spoke to their children about family finances and financial concepts, children had a more positive attitude toward financial knowledge. To financially socialize teenagers, parents need to incorporate learning experiences by mentoring and displaying financial concepts.

In homes where financial concepts are not discussed, children may have underdeveloped knowledge about financial literacy concepts, which can lead to poor financial literacy as an adult. Negative perspectives regarding monetary issues stem from homes where parents would disagree over financial issues (Rinaldi & Todesco, 2012). One of the factors that impact the ability of parents to provide financial education to their children, is the presence or absence of economic skills in parents. By not having the necessary skills to make financial decisions, families face a lot of financial hardships.

Between 2008-2009, researchers found a 3.8% increase in the unemployment rate as individuals lack the basic financial skills that employers need (Jorgenson & Savla, 2010). The lack of financial literacy is affected by societal factors outside of an individual's

control, such as racial background and even their parents financial status. The family's background such as their immigration status is correlated with their financial knowledge.

Individuals who are not part of a minority group tend to have better understanding of financial literacy. In 2008, the national JumpStart Coalition, a non-profit organization that emphasizes the importance of financial literacy conducted a survey of 6,856 high school seniors. They found that white college students had a financial literacy score of 63.3% as compared to African American students who scored only 56.3 % (Mandell, 2008).

The parental income has been found to also impact the financial education of children. According to Mandell (2008) the higher the income of the family, the more opportunities parents have to contribute and take interest in their children's financial environment. For example, parents with higher incomes may purchase their kids a new car or provide life insurance, while lower income parents do not have the disposable income to do so.

The Importance of Financial Literacy

Conversely, economic independence allows for confidence in new economic situations and freedom to control more aspects of life. Teaching concepts of financial literacy such as, understanding the difference between a need and a want, to children at young ages can promote economic independence. When teaching middle school students' financial literacy there are applications to the information in the students' everyday lives (Bush et al., 2012). By high school, students

should know how to open a savings account, manage a budget, understand how interest works, understand how taxes work, and know how to take out a loan (Gould et al., 2018). Having a foundation of financial literacy is important to build upon later in life it can be relied upon. When encountering problems such as economic dependency on a partner, new financial hardships or many other economic decisions having financial literacy skills increases the chances of making prosperous choices.

Women's Initiative

To fulfil this need for greater financial literacy, organizations such as The United Way of Central Massachusetts' Women's Initiative, created programs to financially empower young women. The Women's Initiative is a not-for-profit organization established in 2002, that aims to positively impact girl's lives through "philanthropy and women's leadership"(United Way of Central Massachusetts | Women's Initiative, n.d). One approach the Women's Initiative created to tackle the problems women face due to a lack of financial education is the Dollar Scholar program. The program teaches girls aged 10-14 about financial literacy and provides them with positive role models with the mission of reducing incidents of violence towards women. The Women's Initiative has created an online platform for their Dollar Scholar program but this online version had to be created quickly due to the COVID-19

pandemic. To stick with the accelerated timeline the Women's Initiative has called upon us to ensure the content of the program not only still teaches the intended points, but also stays engaging in addition to creating a tool to track the impact of the program. The team has explored the different disciplines by combining analysis of existing literature along with interviews, focus groups, and surveys with individuals involved in middle school girls' education to create a comprehensive understanding

Benefits of Online Learning

The improvement in internet technologies has allowed virtual teaching of financial literacy skills through online formats to improve the reach of educational programs. The potential to reach students who would otherwise be unable to attend in person events is a substantial benefit for financial education organizations such as the Women's Initiative of the United Way. Additionally, the COVID-19 virus has expedited this movement due to the infeasibility of in-person programs, forcing the Women's Initiative to create an entire brand new online curriculum.

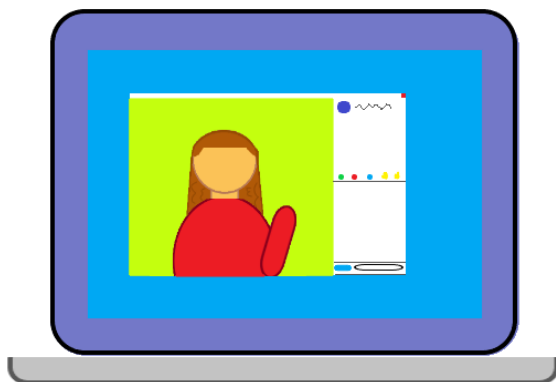
While virtual learning provides a set of challenges that are not found with in-person methods, it also provides several unique advantages and opportunities beyond just its accessibility. Work done by the Pelita Harapan University in Indonesia identifies several of these advantages. First, Harapan found that an increase in learning efficiency is one of the largest benefits cited by students (Fatoni et al., 2020). This is due to the ability to pace the course work according to a student's needs. For example, students can watch lectures at whatever pace they want or could choose to use lecture notes instead, depending upon what they prefer. A second benefit to online learning was the comfort of taking a virtual course (Fatoni et al., 2020). This includes



both learning in a comfortable environment and wearing clothing that is comfortable. The third benefit cited by this study was the improved communication channels students found in online courses (Fatoni et al., 2020). Instead of needing to interrupt an in-person lecture, students found the ease of using text chat features both synchronously and asynchronously to be less imposing and gave the impression of more 1 on 1 learning.

Online learning allows for recordings or asynchronous lessons to be available to students at any time. An asynchronous schedule forces the students to create their own learning schedule but ensures that it will be available when they have the time to avoid distractions and wholly focus on the content. The videos also allow for students to replay the lectures and go through them at a slower or faster pace if needed to fully understand the material.

While virtual and traditional learning methods are dissimilar, it is imperative to not make value judgements based on method alone. Meta-analysis done by the US Department of Education shows that the learning outcomes between both content delivery platforms to be comparable and more dependent upon the quality of the course rather than the delivery method (Means et al., 2009). Thus, while it is promising that these virtual education programs can be as effective as in-person programs, it means that it is critical to design these courses with best practices that the literature can offer.



Methods for Making Online Learning Successful

A continuous issue with any type of learning is keeping the students engaged in the material to ensure they absorb it. A 2017 study highlighted engagement challenges when two university classes started with a traditional in person teaching method for the class and then switched to an online platform. Throughout the study, researchers observed overall class engagement. The observations from the class showed that the participation decreased by roughly 95% in a class of 40 after just the first week of the on-line platform. After five weeks, they found no student engagement (Gillet-Swan, 2017). The problem of keeping students engaged is not new, but the ways to combat it in an online format must be.

One of the primary objectives that was presented to the team by our sponsor was to improve engagement with the virtual Dollar Scholar program. We analyzed the plethora of research that examines the most effective ways of making virtual curriculum more engaging. One primary factor that has been cited by students to improve virtual learning is ensuring there is ample student-student interaction as well as student-teacher interaction (Muilenburg & Berge, 2005). While this problem is not necessarily unique to just online classes, it is particularly exacerbated by the lack of in person contact. The necessity for peer to peer interaction is supported by evidence into the benefits of group learning. Studies show an increase in individual outcomes when students are studying in small groups rather than alone. This difference is further compounded when team-learning strategies are employed to further enhance the experience (Lou et al.'s 2001).

Another factor that has been shown critical for a student's success is interaction with their teacher. A meta analysis done by the Department of Education suggests teaching

styles involving more help sessions and more student teacher interaction improve educational outcomes (Means et al., 2009).

Other studies pay more attention to the many learning styles of students in order to optimize teaching methods. While the number and designation of different learning styles remains varied, Tsai compares the effectiveness of different teaching styles in a 2009 study. The outcome of this work is the realization that teaching to pander for one learning style has negative effects on other students, and thus a more holistic approach incorporating multiple learning and teaching styles provides the best results (Tsai, 2009).

In order to properly design a curriculum to be delivered via an online medium, it is important to first examine how students interact with various learning activities.

Educational psychologist Paul Pintrich gives a clear list of parameters successful learning activities follow (Pintrich 2003). These include providing clear feedback, a balance of opportunities for success and challenges, course material that is both relevant to the task and the student, and finally a focus on utility of the content.

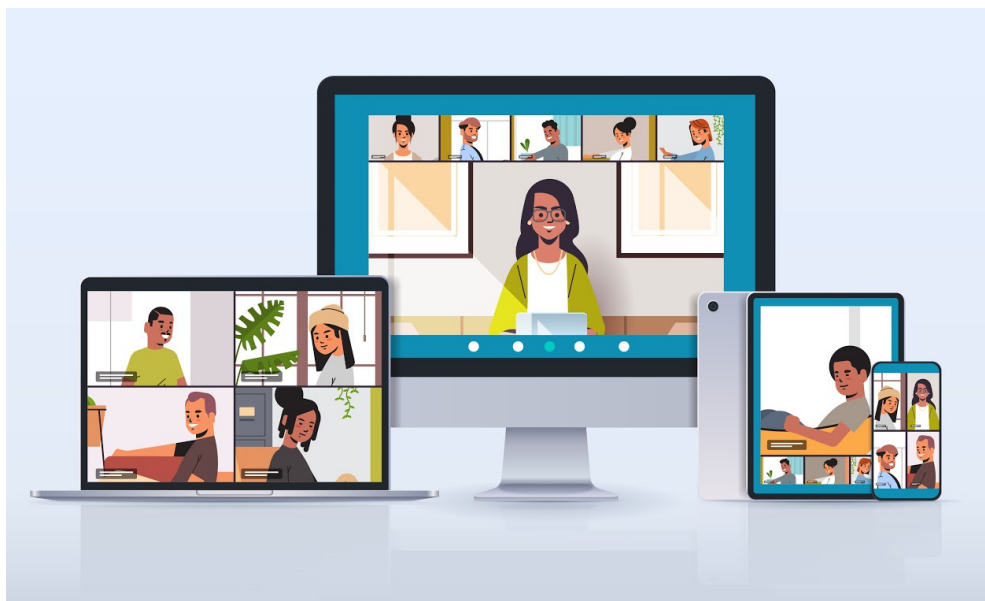
The team used this research into teaching practices and student interaction to expand upon the already extensive work done by the Dollar Scholar program in improving financial literacy skills of young women.

THE PURPOSE

The purpose of this project was to enhance engagement with the virtual Dollar Scholar program to assist the Women's Initiative's purpose of empowering young women through financial education.



METHODOLOGY: INCREASING THE VIRTUAL DOLLAR SCHOLAR ENGAGEMENT



Analyze Curriculum

To create a set of recommendations along with our other deliverables, the team first had to judge what the online program was doing well and what areas could benefit from our recommendations.

We collected data from

- Emily McCann - Director of the Women's Initiative of the **United Way of Central Massachusetts**
- Patricia Leary - Manager of Community Engagement for the Women's Initiative of the **United Way of Central Massachusetts**
- A survey of 19 Notre Dame students who participated in the Dollar Scholar program
- Team members participant Observation data
 - judged based on a rubric (Appendix B)

Through each of the data collection methods we looked for areas that middle school students enjoyed and stayed engaged as well as areas that we could expand upon and look into for future interviews.

Examine Other Programs

Next, we examined additional virtual learning curriculum to increase understanding of the subject and use as points of comparison with the Dollar Scholar Program. We identified the programs via our contacts at the Women's Initiative and through on-line searches (See Appendix D, Part 1 for sponsor questions).

The programs we examined for this goal were Junior Achievement, Girls Inc, and EVERFI. These programs all work to teach financial literacy to young students through various virtual and in-person means. After we identified the programs, we examined their curriculum using two methods. First, we analyzed the content of the programs using their website. For analyzing their content the same method was used as in the previous paragraph. We then conducted semi-structured interviews from

- Jennifer Casey- Assistant Director of Community Based Programs at **Girls Inc**
- Deirdre O'Connor Mitchell- Director of Programs at **Junior Achievement**
- An expert in financial education from **EVERFI**

Pick 2 Lessons Below To Complete:

7 STEPS TO DECISION MAKING

CENTS AND CENTSABILITY

SAVINGS AND INTEREST

USING CREDIT WISELY



TEST YOUR KNOWLEDGE

Best Practices

We conducted a literature review to identify best practices for engagement and efficacy in virtual learning and financial literacy education. We further refined and categorized the data we gathered based on our own observation and the work done by Abrami (Abrami, 2011).

Key best practice themes

- Motivation best practices
- Student interaction best practices
- Content delivery best practices

We distributed a survey and conducted a focus group based on the best practices we researched with middle school students to better understand their opinions about the subject.

The team delivered a survey to the girls of the LASOS (Latina Achievers in Search of Success) program as well as students from Leicester Middle School who had taken an online budgeting workshop with the Women's Initiative. We analyzed the data from this survey (Figure 1) to get a better insight into what about financial literacy motivates students.

Financial Literacy Survey

We are a group of students from Worcester Polytechnic Institute (WPI) in Massachusetts. We are conducting a survey on the content and impact of the Women's Initiative Dollar Scholar program. We believe this research will help the Women's Initiative deliver an even stronger Dollar Scholar program. Your participation in this survey is completely voluntary and you may withdraw at any time. Please remember that your answers will remain anonymous. No names or identifying information will appear on the questionnaires or in any of the project reports or publications. This is a collaborative project between the Women's Initiative of the United Way and WPI. If you would like to speak to our faculty advisor(s), you may email them: Corey Dehner, cdehner@wpi.edu or Gillian Smith, gmsmith@wpi.edu. If interested, a copy of our results can be provided at the conclusion of the study, simply email us or our faculty advisor.

On a scale from 1-5, what number would you give yourself in terms of your knowledge about personal finances, with 1 being no financial knowledge and 5 being perfect financial knowledge?

1 2 3 4 5

no financial knowledge ☐ ☐ ☐ ☐ ☐ perfect financial knowledge

How interested are you in increasing your financial knowledge?

1 2 3 4 5

Not at all ☐ ☐ ☐ ☐ ☐ Very interested

Figure 1. Screenshot of a part of the survey used on Objective 3.

Information Analysis

Once the team had finished the information gathering in the first three objectives, we consolidated this data to develop our recommendations and tools. The team categorized the data into three broad categories: data tracking metrics, course content information, and virtual content delivery information. These categories represent the three primary deliverables we intended to create.

Three primary deliverables

- Data tracking recommendations
- Course content recommendations
- Virtual delivery recommendations

Once the data had been categorized, the team further sorted the information by themes, with the intent of highlighting the most significant or prevalent ideas in each category. These were compared to the existing virtual Dollar Scholar curriculum, and any discrepancies between what the team had identified as ideal methods and what the existing course utilized became a candidate for our deliverables.

Develop Recommendations

Based on the results the team delivered a set of recommendations to improve the engagement of the virtual program and a basis for a data tracking system to the Dollar Scholar team. We compared the best strategies in creating the program's data tracking to the other companies we interviewed including:

- Girls Inc.
- Junior Achievement
- EVERFI

Through the completion of this project the team hopes the Women's Initiative will be able to effectively further their goal of empowering women with financial literacy.

FINDINGS: VIRTUAL LEARNING EFFECTIVENESS AND ENGAGEMENT

The asynchronous Dollar Scholar program consists of 6 informational videos, 3 activities and 7 mentor videos. Through our analysis of the program as well as interviews with financial literacy specialists, surveys and focus groups with the target audience of middle school girls we identified three main factors that influence the effectiveness and engagement of an online platform: motivation, interaction, and delivery. When done correctly both effectiveness and engagement can create a motivated environment of committed students who are excited in learning about the content.

Motivation

One of the most consistent themes we discovered in improving educational outcomes in a virtual program is the **importance of keeping students motivated**. By making students care about the course they are completing, they are incentivized to work harder and focus more. There are two categories for understanding motivation: extrinsic motivational factors that include **external reward structures** and intrinsic motivational factors that **excite students through the perceived value of the curriculum**.

Extrinsic

Extrinsic motivational factors are a series of approaches a program could use to incentivize students to care more. The purpose of this is to motivate students to complete or excel in a curriculum by use of an external reward. An example of this was used in the virtual entrepreneurship course run by the Junior Achievement (JA) program. According to Deirdre O'Connor Mitchell, the Director of programs at JA, this course was one of the most successful online programs they ran during the COVID-19 pandemic (personal communication, April 2021). Ms. Mitchell largely attributed the success of this program to the tangible rewards students received for excelling in the class. Not only are there cash prizes for the most successful teams, but if one of these entrepreneurship teams created

a viable business they received any additional profits generated.

The atmosphere generated by giving rewards for successful teams resulted in good learning outcomes for the students. The existing Dollar Scholar program already incorporates this form of a motivator. Upon completion of the course, a student's name is put into a raffle to win a laptop. While this is a strong motivator, it is also important to consider what is valuable to middle school students. The Assistant Director of Community Based Programs, Jennifer Casey, from Girls Inc, believed one of the strengths of their in-person curriculum was their integration into local school systems allowing them to replace certain classes that a student would otherwise need to take (personal communication, April 2021). By replacing a class period, students would look forward to this course instead of viewing it as more work to be done.

Intrinsic

Intrinsic motivational factors are ways that a course can present content that make a student excited to learn about the course subject without the use of external rewards. While intrinsic motivation achieves a similar desire to learn that the extrinsic motivational factors create, it is done through facilitating interest in the content rather than a reward for performing well. According to Country Banks's Financial Education Officer Jodi Gerulaitis, one of the most important ways to increase engagement in financial literacy is by making the content as close to real-life as possible. By doing this, it makes it easy for a student to understand how learning the content of a program will affect their life. We heard similar themes from a focus group conducted with 43 middle-school girls. These students repeatedly noted the importance of learning about "topics [they are] interested in" and explained that the best part of the Dollar Scholar's virtual budgeting session was the "realistic aspects" of the class (personal communication, April 2021). Lastly, when given an open response question about important aspects of running an online class, 26% of the 43 middle-school respondents' answers included intrinsic motivational factors such as "interesting" and "relatable" (Figure 2).

Intrinsic motivation mentions in survey free response (43 respondents)

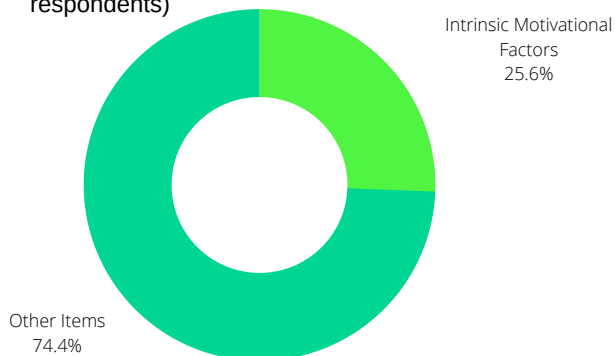


Figure 2. Breakdown of students who mentioned intrinsic motivational factors in virtual learning open response question

Intrinsic motivation illicit but the Dollar Scholar program has attempted to in a few areas. First, many of the mentors in their videos attempt to relate to students through their own stories. This relatability can be a very effective way to connect to a learner and impress upon them the importance of the course. Another aspect of the course that was very well received and incorporated intrinsic motivational design principles was the Budget Sense activity. Not only was this a good break from the videos but it makes students think about their own goals and aspirations as it relates to their financial future. However, this program still has a lot of room to grow. The survey we conducted of 43 middle school students gave insight into which of the topics covered by the Dollar Scholar were interesting to them. Overwhelmingly, students found savings, interest, and personal spending to be their topics of choice with very few responses for any of the other categories (Figure 3). This suggests the Dollar Scholar program will need to innovate new ways to create interest in topics other than Savings and Interest in order to maintain engagement.

What topics would you be most interested in learning about that relate to personal finances? (47 respondents)

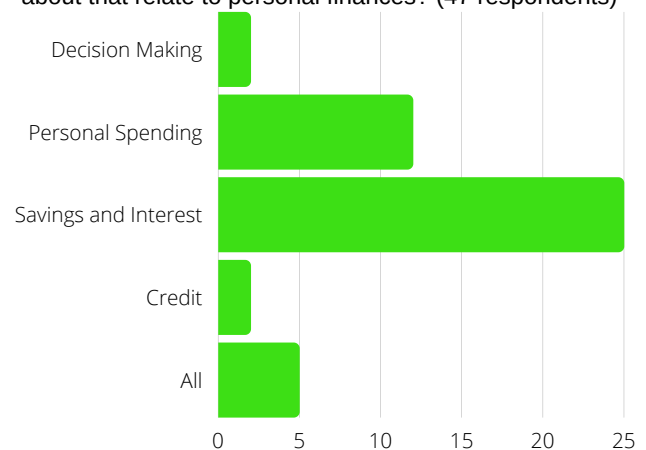


Figure 3: Bar chart of students interest in various financial literacy topics offered by the Dollar Scholar program .

Interaction

Through the interviews, surveys, and focus groups, we have identified three main kinds of interactions a student has when learning on an online platform: interactions between students, interactions between a student and a mentor, and the interaction between the student and the content. Within each of the interviews, the interactions were discussed as important aspects to the design of virtual financial education lesson plans, while the surveys and focus groups done with the Latina Achievers in Search of Success (LASOS) and Leicester Middle School were more focused on the student side of virtual learning as seen in Figure 4 (personal communication, April 2021).

Student-Student Interaction

The first interaction is between students.

Having students interacting with each other in small groups for a team project or simply in pairs increases their engagement with the curriculum. Through our interviews with Jennifer Casey from Girls Inc, Deirdre O'Connor Mitchell from Junior Achievement, a member from Everfi, and Jodie Gerulaitis from Country Bank, we have found that putting the

student in a small group to work through problems or play games increases their engagement with the material (personal communication, April 2021). Similarly, during a focus group, Leicester Middle School students shared that they enjoyed working in groups and being able to learn more about the students in their group through financial spending habits outlined in a budgeting activity. Deirdre O'Connor Mitchell (JA) even remarked that allowing group work increased participation at in-person events as the student would bring their friends to be in a group with (personal communication, April 2021).

Given the success of the in-person group work, Junior Achievement looked for a similar collaborative experience online and found Mural. Mural is an online visual collaboration tool that allows students to collaborate creatively. Jennifer Casey (Girls Inc.) as well as members from the Women's Initiative of the United Way of Central Massachusetts Committee Board also expressed a desire for collaborative experiences among the students to increase the students' engagement and mentor interaction, but have not yet settled on a program.

		Country Bank	Committee Focus Group	Junior Achievement	Girls Inc.	Everfi	LASOS	Leicester Middle School
Student-Student Interaction	Group Work	X	X	X	X	X	X	X
	Collaboration	X	X	X	X	X		
Student-Mentor Interaction	Open Communication	X	X	X	X	X		
	Further Student Understanding	X	X	X	X	X		
Student-Content Interaction	Making Activities Fun	X	X	X	X	X	X	X
	Make Activities Less Like School	X	X	X	X	X	X	X

Figure 4: Interactions mentioned and talked about in the interviews, focus groups and surveys stated

Student-Mentor Interaction

Shared platforms similar to Mural also allow for an increase in the second type of interaction, the interaction between the student and the teacher or mentor. **Having a smooth and open interaction between the student and the teacher increases the students' understanding and eliminates misunderstandings that would hinder the students' engagement.** Jennifer Casey from Girls Inc, Deirdre O'Connor Mitchell from Junior Achievement, a member from Everfi, and Jodie Gerulaitis from Country Bank all recognized the positive influence that mentors have on students' experience and understanding. From the students' perspective, the benefit is just as apparent. The feedback from the 19 Notre Dame students had the mentor videos as their overall favorite part of the program. We participated in the program as well and found the mentoring videos to be the most engaging due to the connection and advice the mentors were imparting on the students.

Student-Content Interaction

The third type of interaction we found is between the student and the content. The delivery of the content has to be engaging. With the COVID-19 pandemic and virtualization of the school system in the end of 2020, at this point in mid-2021 students are “zoomed out”. Both the Women’s Initiative and Everfi recognize Zoom fatigue (personal communication, April 2021). Similarly, our survey and focus group data revealed that students do not want another school class but a fun activity (personal communication, April 2021). **The tedious nature of online classes has highlighted a need for a variety of different delivery methods to keep students interested.**

Delivery

Through our interviews, focus groups, and surveys we found that the mode of delivery of the content in an online platform is important when it comes to making the curriculum successful and engaging. The different methods online platforms use in content delivery can play a significant role in the effectiveness of the course. Interactive, hands-on activities, including games, are engaging approaches to content delivery that students responded to. These methods can communicate new information in a more fun and easy way for the students.

Deirdre O'Connor Mitchell from Junior Achievement, a member from Everfi, Jennifer Casey from Girls Inc, Jodie Gerulaitis from Country Bank, and members of the Committee of the Dollar Scholar program agreed that students need more interactive experiences when it comes to online learning (personal communication, April 2021). Technologies mentioned by them were mostly virtual games and different online activities. Additionally, our survey on middle school students revealed that 88% of participants found Kahoot and hands-on games to be their preferred methods of learning (Figure 5). This concept of students needing more activities in online platforms was also supported by the students who took the virtual Dollar Scholar program. As shown in Figure 4 the majority of the students wanted more activities such as the Scavenger Hunt which increased interactivity.

Our second finding for the delivery of the online curriculum is that videos need to be consistent and flow well. In order for a course to be effective, the information presented needs to be easy (accessible to the students) and consistent throughout. Video length can impact student engagement Deirdre O'Connor Mitchells and Jodie Gerulaitis explained that students lose focus when watching a long video and are more engaged with shorter videos. Specifically for the Dollar Scholar

the program, all 19 students who took the virtual program had concerns about the length of the videos (personal communication, April 2021) (Figure 6). Students from Leicester Schools also voiced concerns about long videos. In a follow-up survey of 43 students, we found that 69.3% think that 5-7 minutes is a good length for an informative video (personal communication, April 2021). This is also backed up by the literature on engagement in online learning. In a large-scale study with 6.9 million video watching sessions, Guo et al. found that the optimal video length for students was around 6 minutes (Guo, Kim, & Rubin, 2014).

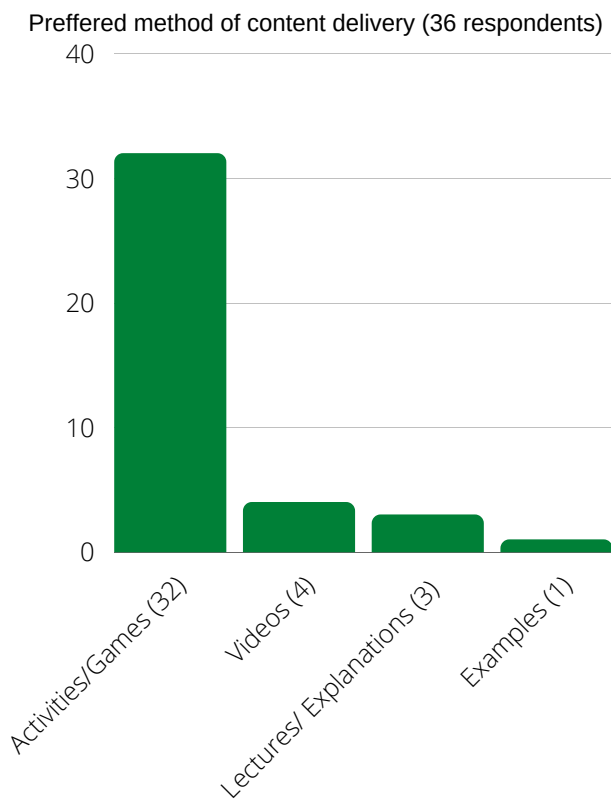


Figure 5. Data from a from the 43 Leicester Middle school students who have taken the online budgeting workshop with the Women's Initiative

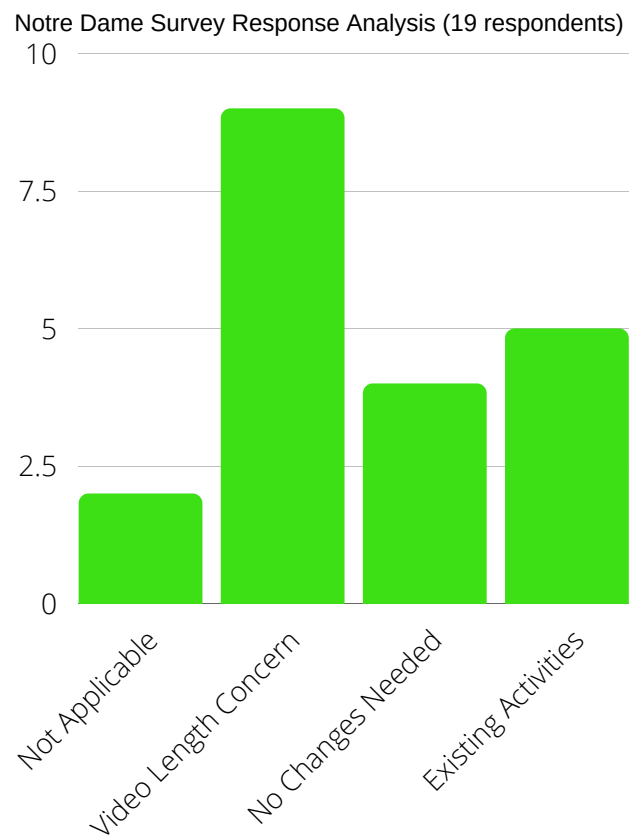


Figure 6. Data from the 19 Notre Dame student who participated in the Dollar Scholar program coded into themes.

RECOMMENDATIONS

Our deliverable for this project is the following set of recommendations. We decided to use our findings to create a set of recommendations that will help the Women's Initiative improve upon their online Dollar Scholar program through an increase in engagement.

Motivation:

We recommend that mentors be encouraged to share their enthusiasm for their area of expertise. From the student's feedback, a mentor who interacts and is more enthusiastic about the topic motivates students more.

We recommend adding story narratives and real-world examples to each section. Intrinsic motivation is very important to maintain student engagement. Our survey results suggested that students were not interested in topics other than personal spending, and, savings and interest, suggesting more work will be required to spark interest through the use of realistic and relatable examples.

Interaction:

We recommend using visual collaboration tools for students and mentors to interact. We gathered information from both students and best practices in virtual learning that show student-mentor interaction is really important when it comes to increasing students' understanding and engagement on the curriculum.

We recommend that the Dollar Scholar program includes more interactive activities such as virtual games. Keeping the delivery of the curriculum varied encourages engagement and keeps the students interested.

Delivery:

We recommend that the Dollar Scholar program creates videos that are 5-7 minutes long. Through surveys conducted on middle school students, research into best practices, and participant observational data

We recommend the addition of more online games/activities to break up the instructional videos. The survey result revealed that students found savings, interest, and personal spending to be their topics of choice. To maintain engagement the Dollar Scholar program will need to innovate new ways, such as virtual games, to create interest in the other topics of financial literacy.

We recommend that these project results are passed into an MQP and/or IQP project in developing virtual games.

Data tracking recommendations:

We recommend that the program uses pre and post-surveys as a data tracking tool. Based on our data gathering from Everfi, Junior Achievement, and Girls Inc pre and post-surveys are great cost-effective and efficient tools used to measure the knowledge, effectiveness, or engagement of the students.

CONCLUSION

We interviewed five experts among several successful organizations in the field of virtual teaching and financial literacy to complete our goal of helping the United Way of Central Massachusetts empower young women . We also gathered data from several groups of middle school students with experience in financial literacy or budgeting courses. The most prevalent themes we found during this research related to motivation, interaction, and content delivery.

- Student must be motivated through intrinsic and extrinsic methods in the form of a reward at the end of the lesson or a self-selection process to pick the lesson.
- The student must also be engaged through several interactions with other students, the teacher, and the curriculum itself.
- Keeping the videos short, varying the delivery method, and having the instructor keep an excited tone all increase the engagement of the students.

Future development and research into the topic should look further into the informal learning environments and interactive media in an academic setting.

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