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An Honors Thesis Titled

Addressing Financial Literacy Issues via Board Game

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Gretchen A. Eichelberger

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Signatures of Honors Thesis Committee

Mentor:

Reader 1:

Reader 2:

Director:

William Burke

Eugene Hahn

Rhyannon Bemis

James Buss

Signature

Print

After studying abroad in Costa Rica and expanding my cross-cultural skills, I had an interest in expanding upon the initial business plan I created through my study abroad experience. From that experience, I came up with a business plan where I created a board game company called “Students helping Students.” Based on my idea, Students helping Students is a company that uses student’s experiences to create board games for different countries across the globe. Through my thesis, a board game to address financial education topics was created. The board game for my research was created for both domestically in the United States and internationally in Costa Rica. There were two designated groups of middle school teachers to provide me with feedback on my game. The questions I am looking to answer through my research and through the teachers’ evaluations of my game are “At what age is the best to teach financial literacy and how do children at this age learn best?”

According to the *Financial Education for Youth: The Role of Schools*, “In recent years, advanced and emerging economics have become increasingly concerned about the level of financial literacy of their citizens” (Financial Education for Youth, 14). Financial literacy issues are not only prominent domestically, but abroad as well. Due to financial literacy becoming more of a concern, it is become acknowledged around the globe as critical for both financial stability and economic development (Financial Education for Youth, 14). It was advised in 2005 by the Organization for Economic Cooperation and Development (OECD) that being educated as early as possible about financial topics is highly recommended (Financial Education for Youth, 16). Financial education is an ever changing and evolving process. Political climates change, which

leads to a change in economic climates, and different topics are then of greater concern for certain societies.

As can also be found in *Financial Education for Youth: The Role of Schools*, “In fact, research and surveys conducted in various countries including Australia, the United Kingdom and the United States show that the development and integration of financial habits and attitudes begin very early and probably before children reach seven years old” (Financial Education for Youth, 17). Starting financial education early can only help, not harm. Schools are critical in addressing financial literacy issues and advancing this type of education for all demographic groups (Financial Education for Youth, 17). Many children grow up in households that are not well versed in financial topics, or if they are, the families do not expose the children to the topics. I am grateful to have grown up in a house where my father always tried to explain financial concepts to me, so I would have an understanding of what was going on around me and what I would need to do in the future. I attribute this continuous and early financial exposure from my parents to the financial pathway I chose to take in school and in my life. I was fortunate to have this exposure, but many children are not, which makes school the main way of improving children’s financial literacy levels.

I created a business plan and financial literacy product line to go along with the research I have done. The business plan can be found in Appendix A. Certain parts of the business plan have been removed if they were included in the main portion of the paper. Students helping Students, also known as S&S for short, is a board game business I created that utilizes traveling to create board games to be used in underprivileged

schools. These games will allow children unable to travel due to finances to be able to become better educated both in and out of the classroom. When I first came up with this idea, the idea was for the board games to focus on cultural and global education. After brainstorming, I thought it would be beneficial to the community to establish a board game to assist in financial education. Due to cultural differences and having the vision to be a global company, Students helping Students will need to factor cultural differences into the various financial education board games it offers in the future.

After creating my physical board games, the goal was for the games to be evaluated by teachers both domestically in the United States and internationally in Costa Rica. These evaluations were to assist in answering the target research questions, along with assist in the direction of the product moving forward. The target for the pilot game being created is middle school aged students. The focus group of teachers had a 5 question evaluation to complete.

As stated by Director at the Center for Universal Education at Brookings Institution Rebecca Winthrop, “It is the children born today whom companies will be recruiting to their ranks in 2030, and the vast majority of these new employees will have been educated in weak education systems in Asia, Africa or Latin America” (Brookings, 3). These education systems would benefit from a form of educational resource that could be acquired at a low cost. A board game can be utilized throughout the years by numerous groups of children. There is a huge return on investment in educational resources. For example, “...using data from a “typical” Indian company, we have found that \$1 invested in education today returns \$53 in value to the employer at the start of a

person's working years" (Brookings, 4). Through the use of a financial education board game, the resources of the private sector can be used to solve problems and issues that are affecting the public. This is a major incentive for the private sector to invest in the games.

Board games work best for topics and subjects where specific information can be focused on (Randel, 261). The prototype board game in my research focuses on specific financial topics geared for the middle school age group. For children from low-income areas, playing board games that are numerical can benefit them rather than a game that does not involve any numerical aspect (Ramani, 375). Financial education topics do have numerical aspects, which makes board games a great way to learn these lessons. The board game prototype for this research does have questions that involve numbers.

In regards to gender, women are less financially literate than men and do not have as much access to formal financial products (Women and Financial Education, 16).

Differences in financial knowledge based on gender at young ages is an area that was mentioned by one of my sources as deserving more attention (Women and Financial Education, 39). The use of the board game prototype being created could enable further research on a difference in financial knowledge based on gender at young ages. Since the game I created is divided into two teams, the teams could be boys vs. girls to see which team does better in the games as a means of seeing if there is a difference in financial knowledge based on gender. It is difficult to improve financial literacy when there is a low access to education. In Latin America and the Caribbean, women's access to finance programs is at a low 19.1% (Women and Financial Education, 51). In Mexico, education for women is encouraging, but the pitfall comes with the labor market for women

(Women and Financial Education, 53). Women in Mexico often resort to the informal entrepreneurial sector (Women and Financial Education, 53). Having a resource, such as a board game, available for children in countries such as Mexico would enable women to have better opportunities in the labor market when they are older.

Even though financial literacy courses are becoming offered more in school, the youth that take these courses are still failing financial literacy tests, which shows that a better method is needed to teach financial literacy (Totenhagen, 167). In order for individuals, families, and the nation as a whole to be well-off for the long-term, it is critical for the youth to be financially literate (Totenhagen, 179). Active learning and hands-on activities are among the most effective ways to teach financial topics (Totenhagen, 180). It has been found that many teachers in the school system are not equipped with the financial knowledge to confidently teach the topics well, so partnering with local financial professionals to facilitate the hands-on activities could be a source of improvement for financial literacy programs (Totenhagen, 180). Parents are often the role models for children, so it is important for them to be a role model who displays stable personal finance (Bryant, 184). Parents' financial habits are often not good habits, and this is in turn what children see and learn about finances. If this cycle is not stopped, the nation as a whole will suffer. Financial education in school or in programs with young children could stop the cycle of financial illiteracy. To be financially literate is to be able to apply financial knowledge to decisions and behavior (Collins, 79). Early childhood is when money management skills are first learned, so it is essential for basic financial topics to be introduced at the elementary level (Collins, 80).

My financial education board game is geared for middle school, which would allow students who began to learn money management skills in elementary school to continue improving upon those skills. Just like any other type of skill, money management is a skill learned with practice. When first introduced to money management concepts, it may seem like an easy concept to pick up on. Initially, someone may feel like saving and not spending is simple; however, when you begin to grow up and go through life, money management is much more complex than just saving and not spending too much. This is why introduction to these ideas in elementary school is great, but it is necessary to continue to expose children to these concepts throughout their middle school and high school careers.

Financial literacy is an extremely important concept that many people do not have a solid grasp on. For a country to be economically successful, the natives of the country would need to have a good understanding of financial literacy concepts. Some high schools, and even some colleges, are mandating a financial literacy course as a graduation requirement, although there are still many that do not have any type of financial education requirement in place. Senator Hagan stated at a hearing before the Subcommittee on Children and Families of the Committee on Health, Education, Labor, and Pensions, “Unfortunately, the majority of States do not require financial education to be taught in schools at all. Only 24 States require a one semester course in personal finance, or require personal finance to be integrated into another course” (United States, Congress, Senate, Committee on Health, Education, Labor, and Pensions, 2). Graduates often complain of the lack of financial education that is part of both their K through 12

education, and even college. There are many concepts taught in school that are not utilized after graduation, but financial education concepts could be utilized during school and forever after if they were taught. Financial education should be more of a norm rather than a one semester requirement. It should be expanded upon way past being taught during one semester. Students can be lectured all they want, but true change stems from applying knowledge to real-life experiences. Utilizing a board game, talking to real business people, and applying financial education bring life to the topics and to the importance these topics have for the success of every individual.

Nicole Lipp, a North Carolina teacher, stated at the same subcommittee meeting that Senator Hagan attended:

“I feel a great sense of urgency surrounding this topic because I have personally experienced the effects of learning financial literacy lessons early on, and have also helped teach these lessons to students who desperately need them. Becoming financially literate can give someone without a lot of money the knowledge needed to take control of their finances and the tools they need to break a cycle of overspending and debt” (United States, Congress, Senate, Committee on Health, Education, Labor, and Pensions, 11).

Like stated by Lipp, financial education can assist someone even when they do not have much money. From my own experience, I have found that people who have less money often have better money management skills than people with larger sums of money available. When someone makes or has more money, they get used to that kind of lavish



lifestyle. While it would seem like someone who makes more should have more money available, oftentimes people who make more often have poor money management skills due to their lifestyle. Furthermore, it is critical not only for children from families who are not very affluent but for children from families who are affluent to both participate in financial education programs and activities.

According to Megan O’Neil-Haight, a Family, Youth, and Communities Finance Educator:

“With the exception of a few generally underutilized in-school banking programs, Maryland’s Lower Eastern Shore, like so many other areas across the nation, has few or no school-based financial literacy programs. Although educators understand the importance of teaching students basic money skills, tight schedules, lack of resources and low confidence in utilizing resources effectively stand as barriers to meeting this newly recognized priority” (43).

Since Salisbury University is on the Eastern shore, there is an abundance of knowledge and students who could help create financial literacy programs for Maryland’s Eastern shore. This board game creation is the start to a project that could be greatly expanded upon and turned into an entire program. An extension educator designed a program known as The Parents and Teachers as Wealth Coaches project originally for the Maryland Eastern shore (O’Neil-Haight, 43). This project targeted areas similar to the ones targeted by my project. O’Neil-Haight targeted Somerset, Wicomico, and

Worcester Counties with Somerset County having the highest rating for child poverty in all of Maryland (O'Neil-Haight, 43).

When I decided to target the middle school age group for the financial education board game, I went to the internet to help me identify the most appropriate material for this age range. I knew of vast amounts of material available, so I was recommended to leverage that to pinpoint which financial topics would be best for a middle school age range. The extension educator of The Parents and Teachers as Wealth Coaches project did the same thing. They went to Google to look through curriculum available online for the target age group of the project (O'Neil-Haight 43). This online search led the extension educator to discover a socially conscious small business in Los Angeles known as the It's A Habit! Company, Inc. (O'Neil-Haight, 43). Mascot character programs are created by the founder of this company to go along with his books, which are self-authored (O'Neil-Haight, 44). Children were excited with the various modes of communication used by the company to include: music, movement, reading aloud, call and response, and paper and pencil activities (O'Neil-Haight, 44). This shows that financial education resources need to be engaging to keep the attention of children.

The back story being used in my board game is as follows: "Sally and Sam are savvy seventh graders savers at the Fantastic Financial Preparatory School, which prepares students to be financially knowledgeable before entering high school and the adult world thereafter. After completing sixth grade at the Fantastic Financial Preparatory School, Sally and Sam have begun to gain the middle school financial literacy concepts, but still have a lot to learn. Help guide Sally and Sam towards the right

direction for making the best financial decisions they can!” I created the introduction for my game in a way that it could be relatable to middle school students. Some examples of questions I created for my board game are as follows:

1. What is an opportunity cost also called?
  - a. A trade-off
  - b. An advantage
  - c. A disadvantage
  - d. None of the above
2. Scenario: you purchase a cell phone with money you saved up in a savings account, but this money is not going to be earning interest now that you purchased your phone: what is this known as?
  - a. A financial opportunity cost
  - b. A personal opportunity cost
  - c. A problem
  - d. A solution
3. What type of risk deals with rising prices causing lower buying power?
  - a. Income risk
  - b. Liquidity risk
  - c. Personal risk
  - d. Inflation risk
4. What is the word that describes postponing thought and action until options are limited?

- a. Agonizing
  - b. Spontaneity
  - c. Procrastination
  - d. Avoidance
5. What is the first phase of the career planning process?
- a. Identify specific job opportunities
  - b. Assess your personal interest, abilities, and career goals
  - c. Identify specific job opportunities
  - d. Obtain additional career training
6. Which of the following is not part of preparing before the interview?
- a. Ask questions to help you better know the organization
  - b. Prepare proper dress and grooming
  - c. Research the organization
  - d. Research the organization

The extension educator of the financial literacy program in Maryland strategized for funding to allow the author of the Los Angeles Company to perform live readings of some of his books (O’Neil-Haight, 44). \$23,500 was secured by grants and \$1,200 was collected from in-kind contributions (O’Neil-Haight, 44). These funds came from a direct service grant program, a private company, and local financial institutions (O’Neil-Haight, 44). To launch my “Climbing the Corporate Ladder Board Game” in the future, funding will be critical to the success of my product/company. I was planning on

getting funding from the private sector from investors who believe in my business and are interested in helping the global and financial education sector. This goes hand-in-hand with the success the extension educator had in receiving funds for their program.

There were teacher trainings held during faculty meetings and one Head Start professional development teacher training in addition to the student assemblies and activities provided to the classrooms as part of the extension educator's program (O'Neil-Haight, 44). As said in the journal, "The purpose of these trainings was to provide the context in which the student assemblies were relevant, to motivate teachers and parents to become active in youth financial literacy education, and to empower participants with concrete strategies and resources they could utilize in the classroom and at home" (O'Neil-Haight, 44). It is significant to involve more than just teachers in the financial education process. The programs in turn had "ancillary outcomes for classroom teachers" based on data from evaluations of the program (O'Neil-Haight, 45). There is a positive impact for teaching in the classroom for those teachers who attended the assemblies (O'Neil-Haight, 45). According to the journal:

"There seems to be a potential synergistic effect for children learning in these teachers' classrooms because together with what students reported about their attitudes and knowledge post-assembly, teachers reported greater knowledge about financial education tools and intent to talk more (63%) and teach more effectively (43%) about money matters as a direct result of the student assembly" (O-Neil-Haight, 45).

Training teachers in turn benefits the effectiveness of financial education programs for students. Due to its adaptability, the project created by the Extension educator is able to meet local needs and resources in communities outside of the Lower Eastern Shore.

While financial education is becoming increasingly important for youth in the United States, the same is true in many other areas of the world. The concern emerging countries are having for financial literacy stems from “the potential impact of shrinking public and private welfare systems, shifting demographics, including the ageing of the population in many countries, and the increased sophistication and expansion of financial services” (PISA 2012 Results, 26). Countries are beginning to recognize that society as a whole is benefitted from increased financial literacy rather than just the people who are receiving the financial literacy education. This ties into the significance of my project. Not only will providing an appropriate learning tool at the most appropriate age benefit the children playing the game, but the larger society and community. There is vast amounts of data available regarding financial literacy for adults, but there is few amounts of data collected in regards to the financial literacy of youth (PISA 2012 Results, 30). This could be due to the fact that there is a lack of resources available across countries for youth to become more financially educated. With this lack of resources leads to a lack of data. Also, there is the inability to make comparisons between countries even if financial education is being implemented due to the fact of such different resources being used. If successful, my product could be successful in being implemented across the world, which would allow for comparable data collection on financial literacy and education practices of youth.

The Programme for International Student Assessment (PISA) is utilized in countries across the globe as a way to assess various policies and practices used in education, to include financial education (PISA 2012 Results, 19). The first large-scale international study that addressed the financial literacy was the 2012 PISA focused on financial literacy (PISA 2012 Results, 31). This assessment was for 15-year-old students, which would be in the beginning years of high school (PISA 2012 Results, 31). About 33% of these students in the United States do not have financial education that is available to them (PISA 2012 Results, 40). Also in the United States, about 41% of students attended schools that employ teachers who do not attend professional development in financial education (PISA 2012 Results, 42).

The statistics found by the 2012 survey could indicate improvements to be made in the education system. If financial education is not available for 15-year old high schoolers, financial education could be implemented in middle schools. This would allow students to enter high school having a solid financial education base. Also, based on both PISA and The Student and Teachers as Wealth Coaches Project, teachers need to be more passionate about financial topics in the education system. Rather than give teachers financial lesson plans and materials from outside sources and tell them to teach a certain topic in a certain way, involving the teachers could benefit both them and the students. By involving the teachers in the creation of tools to teach financial literacy and receiving feedback from them, the teachers could become more passionate and financial education. Many teachers in elementary and middle school do not have the financial education background. When outside programs come in to teach financial education,

teachers either cannot follow-up with the students or cannot teach the topics effectively if they do not have a background of what is being taught. If teachers input is received in creating financial materials, the students will have a better learning experience in turn.

Board games are a great learning tool because they can be used both in and outside of the classroom. A board game can be created in a way to be easily transportable so that it can travel between locations. This being said, the lessons a parent teaches a child often can go hand in hand with their children's education in the classroom. Saving behavior as an adult is strongly related to children being taught when they were younger (Buccioli, 8). One study tested to see if teaching about savings during adolescence rather than during childhood was more effective (Buccioli, 8). This study found that teaching about savings during both childhood and adolescence was the most effective strategy (Buccioli, 8). If financial education is begun during childhood but not followed through in the adolescence time frame, the beneficial effect of the financial education is lessened (Buccioli, 8). This shows the importance of beginning financial education early on in life.

The study also focused on which teaching methods were the best for parents to pursue. Using the strategy of pocket money has a positive impact on the amount of money that is saved (Buccioli, 9). When the teaching methods of using pocket money, control, and advice are combined, the greatest effects are present (Buccioli, 9). Financial decisions that are future-oriented are encouraged when education is provided by parents (Buccioli, 10). The study also found "that the distance in the propensity to save between those who received parental teaching and those who did not reduces with age" (Buccioli,



13). Younger children are more likely to save if their parents taught them about finances compared to children's parents who did not involve themselves with such education.

On April 21<sup>st</sup>, 2017, I participated in the Salisbury University Entrepreneurship competition to pitch the business idea of Students helping Students, along with “Climbing the Corporate Ladder” as one of the first prototype board games. Competition was tough, but I was enthusiastic about my product and received great feedback about my product and poster from people including my judges. I received a business card from one of my judges who works for a non-profit organization. Presenting as part of this competition showed me that my idea could be expanded upon in the future. Another enthusiastic judge is involved in the Wicomico county school system and inquired if I talked to Junior Achievement, which I did as part of the creation of Climbing the Corporate Ladder.

As stated earlier, the goal of this research was to have 2 focus groups to evaluate the board game. The first group is Mace's Lane Middle School located in Cambridge, MD. The second school involved is the Costa Rica International Academy. There are five questions part of the survey the teachers completed. The five questions are as follows:

1. What were your overall impressions of the game?
2. What did you like and dislike about the game?
3. Could you use this in your curriculum and if so, how?

4. What do you think about a board game as a means of education compared to other forms of education, such as computer games?

5. What are any other comments or concerns you have about this game?

The results from the surveys at Mace's Lane Middle School located in Cambridge, MD are as follows: Teacher A said that the questions of the game were great, but the directions for the game were slightly difficult to read. This teacher commented that if a teacher was explaining the instructions, then it would be okay. This teacher did not believe the game could be used in their curriculum since they are a sixth grade teacher. The vocabulary and difficulty of the questions would be too over the heads of the sixth graders. This teacher thought it would be great for late high school students and at the college level. This teachers loves board games as a method of learning, and they consider themselves a hands on type of teacher. This type of learning provides more meaningful interaction with peers. Other comments this teacher had were in regards to how the children would answer the questions, what the other children would be doing while their team or the opposite team is answering, and how it would be determined who rolls the dice and moves the game pieces.

Teacher B believed that the game would be good for grades eight and above. They said it would be a fun way for students to learn financial literacy. They liked the questions if the game was being used for high school aged students. They thought it may be too difficult for most middle school students and too advanced for sixth graders being that this was a sixth grade teacher. This teacher believes that board games are great for

learning when used appropriately and would give students something hands on to do and a break from the computer screen.

Teacher C said that the instructions are very confusing for a teacher to understand, let alone a student. They said they would become bored if playing the game due to complexity of rules. They said the game has a nice look and that the idea is interesting and competitive. They reiterated that the downside was confusing instructions. This teacher said they could use this game in their curriculum vocabulary review or lesson supplement for financial literacy units. This teacher thinks board games are more hands on for students and could lead to more engagement. Computer games are more often single player whereas board games can be multiplayer. Their extra comment was that the board idea is good, but the appearance could be improved. They also said other parts are well thought out.

Teacher D said that the game has a good idea, but would need to be modified in a larger classroom to keep students on task. They liked that there are a variety of questions and that the rules are simple. They disliked the fact that few people get to play at one time. They said it would work great with economics or financial literacy to review vocabulary. They liked that it is hands on and tactile, but it must be used in moderation to get the most out of it otherwise it may become mundane. This teacher's other comments were that they would like to see a more durable and visually appealing game board. They also said that simple and inexpensively replicable is always good.

Teacher E said that their overall impression of the game was that it is simple and easy to learn, along with easy to play. They believed it was maybe too easy. They said this would be great for learning purposes, but it was not visually appealing although the bag was cute. They could not use this game in their curriculum because they are a reading and language arts teacher. This teacher said they love board games as a means of education compared to other forms.

Teacher F said that the game was very informative and simplistic, but it was not visually appealing. They said it would be good for students to learn but not keep them locked in. This teacher liked the simplicity of the game and clear instruction. They disliked the game board because it was not attractive in their opinion. They could use this in their classroom because it would be beneficial for economics and vocabulary reviews. They liked the fact that the game is hands on but it cannot compete with the visual appeal that the computer offers. If the board of the game and the cards were improved, it could compete with board games. They said overall, it was a good concept and great game play process but needs to be visually appealing. They enjoyed the back story of the game as well.

Based on the six teacher evaluations from Mace's Lane Middle School, the overall takeaway is that the game is a great idea that needs some improvements to progress it from a prototype to full-blown implementation. Some of the teachers believe that the instructions are too difficult, while others believe them to be simple. The instructions for the game were as follows: Divide the group into two teams. One team will represent Sally, and the other team will represent Sam. Have one team roll the dice.

If it lands on odd, the team who rolled the dice will be Sam and the other team will be Sally. If it lands on even, the team who rolled the dice will be Sally and the other team will be Sam. Whichever team makes it to finish first wins the game! To begin playing, the team who did not roll the dice to decide which player they were will go first. This team should roll the dice. The teams will alternate rolling the dice throughout the game. If the dice lands on an odd number, choose a green card. If the dice lands on an even number, choose a gold card. Green cards represent a card to move your opponent backwards if answered correctly. Draw a card from the green card deck and read the question. Choose the best possible answer. Then, flip the card over to see if the question was answered correctly. Reroll the dice if answered correctly to see how many spaces your opponent moves backwards. Gold cards represent cards to move yourself forwards if answered correctly. Draw a card from the gold card deck and read the question. Choose the best possible answer. Then, flip the card over to see if the question was answered correctly. Reroll the dice if answered correctly to see how many spaces you move forward. If either a green or gold card is not answered correctly, then the player stays in place.

Interpersonal skills are essential for success, but younger generations seem to be lacking these skills as technology is taking over. This is why it is important to incorporate board games back as a form of education. The financial education board game I created is played by working in two teams, which will allow for an improvement in teamwork skills and communication skills as well. It will be necessary to work and

communicate with your team to determine how you want to answer a certain question for the game.

I attribute the difference in teachers' opinions on the instructions to the variance in the grade levels they teach. The instructions of my game would be too difficult for a sixth grader, but more appropriate for an eighth grader about to enter middle school. Some teachers liked the simplicity of the design of the game, but others made comments on the physical board of the game. The board was made to be easily transportable to serve as a competitive advantage for the business and a benefit to the user. The game being evaluated was a prototype, so I would need to add more to the design of the board game to remain competitive in the game industry where technology poses a threat. All of the teachers expressed a liking for using board games in the classroom.

While the Costa Rica International Academy is in possession of a prototype game, they were unable to get the surveys back to me due to this time of year being a busy time in their country. I considered getting more evaluations from a school here, but I truly wanted one group here and one abroad. Since another local group would have been exposed to similar existing programs on the Eastern Shore of Maryland, I determined that the feedback would be aligned with the feedback received from Cambridge Middle School. This research has potential to be expanded upon even further to include actually implementing the game by having children play it. I originally was going to do that this semester, but there are many limitations when dealing with minor children, so more time than one semester would have been necessary. My predictions about the Costa Rica

evaluations would be that the results would be similar to Mace's Lane Middle School with possible feedback about gearing the questions more specifically to their country.

As said by O'Neil-Haight:

"Cultivating economically resilient people, families, and communities requires strategic and vital relationships across agencies, among governments, and between the public and the private sectors. A web of shared understanding, high quality resources, and a strong network of motivated community members are now helping people on the Lower Eastern Shore learn to manage money, set financial goals, and achieve them in a way that has never before been accomplished. This is an instructive example of research-based knowledge being applied to encourage unique partnerships that promote sustainable mediation of rural poverty" (46).

In order for our country and world to succeed, it is a group effort towards working towards the most financially literate societies as possible. Parents alone, schools alone, businesses alone cannot combat financial literacy problems. Schools, parents, and businesses must work together to set society on the path to success in the future. Locally, there are great partnerships that can be expanded upon to bring financial education in this area to an even higher level. After making connections at the Entrepreneurship Competition, it is clear that partnerships are the key to success in teaching financial topics.

After the creation of my board game and research, I conclude that there is not one defined best time to teach financial literacy. When I created my board game, people suggested focusing more on middle school rather than younger, but after finishing my research, I believe that the younger the age, the better to begin teaching financial literacy. The exposure at a younger age puts children on the path towards breaking a cycle of financial illiteracy. For the game I created in particular, it was aimed at middle schoolers, but after receiving results from the survey, I believe that particular game would be more appropriate for eighth graders and above. Many children do not receive much financial education in middle school, so this game could even benefit them at a high school level. While earlier is better to teach financial education, there is no cap on when is too late to start. Financial education can be taught at any point in life even if an individual did not receive financial education at a young age. The best learning method for children at a certain age depends on the concepts and topics being taught. In the case of financial education, hands on methods, such as board games, enable reinforcement and higher levels of involvement and interaction. Using board games for financial education topics combines a great learning method with an imperative topic for children in societies across the globe.



## Appendix A - Business Plan

- **Overview:** *What is the intention of the business plan? Why do you need a business plan? Who is the audience for my business plan and what do they expect?*

The intention of the business plan is to map out the road to success for my business Students helping Students. Students helping Students, also known as S&S for short, is a board game business that utilizes college students to create board games to be used in underprivileged schools. These games will allow children to become better educated both in and out of the classroom. A business plan is necessary for the business to succeed and for investors to understand the business to be willing to provide funds to Students helping Students.

- **Executive Summary:** *History of the company, how did the idea for this business come about, experience in the industry. Identify the ownership and legal structure. Describe your entrepreneurial goals and objectives highlighting the origins, challenges, aspirations and encouragement along the way.*

When I was younger, I had to create a board game for a class. My dad always told me that he believed I could go far with creating an actual board game. Due to this deep belief held by my dad, my parents saved the game for me for when I was older and

could do more with it. I titled this very first game “Be a Star,” and it was geared for elementary aged students. The game was to help teach lessons of how to behave in school. This is the initial project I had that got me going on the board game track.

When I moved onto high school, I developed a heavy interest in business. I joined the Academy of Finance and was one of two Academy of Finance National Completers at my high school. This love for business carried over into college where I majored in Finance and minored in Accounting. Going along with my desire to be in the field of business, I have had an interest in financial literacy education since high school. I participated in Junior Achievement in high school and taught financial literacy topics to elementary schoolers.

After studying abroad in Costa Rica in college, I thought it would be the perfect opportunity to tie travel, my business background, and my interest in board games into a product and business that enables those who are unable to travel or afford educational resources to learn while having fun.

One of the first board games that Students helping Students will be composing was inspired from my study abroad experience to Costa Rica. This game will be titled “Climbing the Corporate Ladder.” After exploring Costa Rica, I learned about Café Britt, a company becoming known globally. Along with Café Britt’s own products, they have begun to sell other retail products. I plan on working with Café Britt after Students helping Students takes off to begin expanding sales of my company. Café Britt is located in 13 different countries. The employees of Café Britt also give back to

their communities in various ways to include improving the schools. The fact that Café Britt is expanding globally and has a strong emphasis on global responsibility goes hand in hand with the mission of Students helping Students.

I will be the sole owner of this business in the beginning, so Students helping Students will be a sole proprietorship initially. As the business grows, I will evaluate whether it would be more efficient and effective to add a partner to gain more skill sets.

My entrepreneurial goals include to increase sales at least 20% each year for the first five years. The mission is to increase the education level of students in underprivileged areas all over the world through the use of hands on education. In the first year, I aim to sell board games to at least 5 different countries. I have a vision to make a tangible difference in the lives of children and to visit the main areas that are affected by Students helping Students to really visualize the difference the company will make and to gain feedback from those using the product. The biggest challenge will be expanding the business once demand is too much for my original location to handle.

I have a great support system and professional network to provide me with encouragement, suggestions, help, and motivation along the way. Philanthropy and giving back has always been a passion of mine, and I want to carry this over into my professional career through this business. I will be working at Morgan Stanley after graduation, and this company greatly treasures giving back to the community. Down

the line, if Students helping Students is successful, I could work towards leveraging my employer's philanthropy to spread the game around the world.

- ***Business Description - Product, Service, Idea or Concept:*** *What the business will do: what products and services will be offered? Describe the idea or concept and stage of the development: still discovery or ready to market?*

Students helping Students is still in the discovery phase but is approaching the ready to market phase. I have expanded and tailored various possibilities for this company and the products it will offer. There are currently two prototypes: the Be a Star in elementary school prototype focusing on behavior lessons and the Climbing the Corporate Ladder prototype for financial education in middle school. After going through a rigorous Institutional Review Board process this semester, the Climbing the Corporate Ladder prototype is going to be evaluated by middle school teachers. Gaining this feedback from real middle-school teachers will give me immensely important to the progression of my company's products.

- ***Market, Industry and Competitive Analysis:*** *What makes your business unique? Briefly describe the industry overall with growth potential and trend. What is your target market? Who is your competition? How do you plan to market your product or service? What is your competitive advantage?*

Students helping students is unique because as the business name portrays, it is truly students helping students. Students helping Students will utilize the experiences and backgrounds of students from various universities to formulate a board games to allow other students of varying ages to learn topics that are critical for success.

The cultural board game line will utilize the experiences of students who have studied abroad in college. This will provide opinions from someone who actually traveled to the country about the best topics to include as part of the game. More specifically, universities all over the country offer education, international studies, and international business majors study abroad experiences to many different countries. Helping to create this game could potentially count as one or two credits for students who are traveling abroad.

The financial education board game line will be very similar because business students that have studied abroad will help to determine the most appropriate financial topics for the game based on the country it will be utilized in. When I studied abroad in Costa Rica, I took a business in a global setting course, which allowed me to become more familiar with which business topics are important to that country.

The behavior oriented games will also be similar because psychology and elementary education students can help to analyze developmental trends to determine the best questions for behavior education.

The global education game industry primarily seems to be online games, and most of the games focus on global issues rather than focusing on learning about different cultures. Global education is on the rise, but the tools being used are mostly online. In underprivileged areas, online games are not efficient due to costs or lack of technology, and board games are a much more affordable option that can be played time and time again. Financial education is becoming more and more recognized as necessary in areas ranging from developed to developing and underprivileged countries.

The target market of this company is students in underprivileged areas to provide them with the opportunity to compete against other students receiving global and financial education already. The board games would be a great learning tool for anyone, but the mission is to help those who are not able to afford other forms of resources.

Students helping Student's competitive advantage is that it is helping society at a very affordable cost. I plan to market Students helping Student's products by targeting organizations that are involved with global and financial education and groups that focus on supporting underprivileged children. These groups are the ones that could take full advantage of the board games to provide them to school children. Employers are also increasingly becoming focused on global education, so by targeting those entities that find global education important, I will be able to market the products of Students helping Students successfully.

I will have a website that all sales are conducted on initially, so online resources will be my main form of marketing. I will utilize social media, such as Facebook and Instagram, to spread the word and mission of Students helping Students as well. By planning to sell my products in Café Britt stores, I will be able to start my business and help it grow without having to establish my own physical store. I will also be able to sell on sites such as Etsy in the beginning. In areas such as San Francisco, Costa Rica, where organizations are coming in to help the school children, the board games of Students helping Students would be perfect to help children learn about their own culture better along with other cultures, become more financially literate, or learn how to behave when they attend school. I plan to donate some board games to various groups to help market my product in the beginning and get the company name out there. I will be allowing the focus group of teachers who evaluate my game to keep a prototype for each of their schools to use at their own discretion.

- ***Products and Services:*** “Sell” your product: *physical description of the product or service. What need are you filling? What are the benefits to the user? What is the competitive advantage of your product?*

Students helping Students is filling the need of global awareness, increased financial literacy, and improved behavior awareness through education. The user benefits from becoming more culturally, behaviorally and/or financially aware without having to travel or worry about not having access to technological resources. This allows the

user to become competitive in the job market or in school against those who are able to travel or have access to better resources.

Students helping Students allows students to experience different cultures from home.

Students helping Students will have different forms of board games with some being made on an easily transportable cloth mat, so that users can take it with them wherever they go. The bag that the board game comes from will be made out of reusable products once the company gets up and running because Students helping Students finds social responsibility as part of business important. The game pieces for the cultural board game line be little trinkets from the actual country that the board game is about to enhance the game.

While the financial education board game line resembles a ladder to mimic an individual having to climb the corporate ladder to get to the top of their organization, the cultural board game line will be laid out like the Chutes and Ladders game. The first game in the financial education line is being created mainly by myself, with help from other students who work in the 3D printing office and enjoy sketching/art. For the Costa Rican cultural board game, the ladders (mountains) help players advance, while the chutes (rivers) cause players to move backwards. While Chutes and Ladders is a game of chance by rolling the dice, Students helping Student's board games will not be laid out that way. To advance via a mountain, a player will have to answer a question about the country correctly. If the player does not answer correctly, they move backwards.



The one prototype board game in my research focuses on specific financial topics geared for the middle school age group. For children from low-income areas, playing board games that are numerical can benefit them rather than a game that does not involve any numerical aspect (Ramani, 375). Financial education topics do have numerical aspects, which makes board games a great way to learn these lessons.

The behavior education game is designed in a manner that elementary schoolers can relate. In elementary school, positive reinforcement is often practiced. Children are often rewarded for good behavior, so “Be a Star” is a very appropriate theme for students who are often rewarded using such things as “getting a gold star for the day.”

The users of the game not only benefit by receiving great educational resources at a good cost. This game brings human interaction back into classrooms. While technology can provide many benefits, there are also downsides. Younger generations can have a harder time holding conversations and working with other human beings when they are so used to mainly dealing with technology and their devices. It is critical to being successful in the future that students do not completely use their interaction skillsets. Working both independently but with others and as a team are both important, and the skills that come from that will be provided to the user by this business.

Also, board games are timeless. Popular games like Life, Chutes and Ladders, and Monopoly are played by their users for years. These games can be utilized numerous

times. The user has to make a one-time purchase to be provided with years' worth of fun and education.

The *competitive advantage* of this company is that it combines students helping other students in underprivileged areas to create unique education tools.

- ***Marketing and Promotions: Industry Analysis: trends, participants. How does your business fit? Industry Analysis: trends, participants. How does your business fit? Market Analysis: who is going to buy your product? What are the market needs, trends? Marketing Plan: How are you going to communicate the value of your product or service to your customer? Competition: who is your competition? What do they do better?***

The global education industry has a trend towards online platforms and resources, so Students helping Students is introducing a product not common to the industry. As an example, there is an online game that exists with a global dimension known as *The Trading Game*, but it focuses on trade rather than cultural awareness. The biggest competitor of Students helping Students would be a board game that exists known as *Around the World*, and it includes trivia questions on different cultures.

Non-profit organizations focused on global and financial education will be great customers for this product. I will communicate the value of this product by focusing on the need for global and financial education in all school systems to enable underprivileged children to have cultural awareness and financial background. Around

the World games is award winning and critically acclaimed board game, so they have the advantage of already being recognized. Junior Achievement is a well-known non-profit that teaches financial topics in schools, but their games are not created by students even if the topics are taught by students.

- **Operational Plan:** *Location, facilities and equipment, suppliers, inventory requirements. Where is the location of your business? What kind of space is required? How are you going to get to the finished product? Manufacturing? Who are your suppliers? What is required to secure a supplier? How are you going to distribute your product?*

The initial location of Students helping Students will be in Salisbury, MD. Not much space will be required aside from an office. The suppliers will vary depending on the theme of the board game. For the prototype board games, I am securing supplies from craft stores. I collaborated with my university's 3D printing shop to receive some of the supplies. I will also be getting the bags for the games made from a local embroidery shop. Once my business expands, it will be easier to form partnerships with suppliers and order supplies in bulk once there is a large demand for each board game type.

For the financial education board game targeted initially for the U.S. and Costa Rica, the game will be manufactured out of my office and work area in Salisbury. For the Costa Rica cultural board game, some supplies will be from Costa Rica. To secure suppliers in foreign countries, I will use the university students studying abroad working with Students helping Students to do so. Those supplies will have quality control checks conducted by the students and then distributed all over the world via shipping.

An online store will be the main method of sales, so products will be distributed via shipping.

- ***Management and Organization:*** *Who are the people in key positions? What are their qualifications? Organization structure: show that you understand what type and how many employees will be required.*

I will be the owner of the company in the highest position. My qualifications include being a current Perdue University Business student in the Bellavance Honors College at Salisbury University. Beginning in July, I will be a financial analyst at Morgan Stanley. I have numerous awards and achievements and have a love for traveling. I have studied abroad in Costa Rica, and I have also been part of mission trips. The students who will work with my business will receive a stipend per each semester they spend volunteering with the company. This is a great experience for students needing volunteer hours, experience in their field, or additional funds to travel abroad in the country of their choice. I will make 2 new board games a year. I will rely on the

university students to secure some suppliers, conduct quality control checks, and help with the creation of the games.

For all of the board game lines, depending on the role of the student, they can choose to put in volunteer hours to add to their resume for helping with the game creation.

Also, if they plan to work on the game for a more extended period of time, they could receive some credits towards their degree. A partnership with different universities would need to be established in order for students to get credit. Based on my experience at my University, there are many partnerships with different businesses, like for internships where there is a 3-credit class that goes along during the internship.

- ***Financials: Funding requirements, financial statements and financial analysis.***  
*Sources and uses: need for business loan, history of applications for loans or grants, participants investment (funding and effort), possible investors.*

To fund Students helping Students, I will be using savings that I have accumulated throughout the years. I will be graduating from Salisbury debt free, so I will have no impending debt that I will have to worry about in other aspects of my life. Other funding will come from the private sector from investors that believe in my business and are interested in helping the global and financial education sector.

Companies such as my own future employer are examples of possible investors. These companies want to give back to the community. If they invest in my business, which helps the community, they will also be investing in their future workforce.

The audience for the business plan includes lenders who will finance the start-up of Students helping Students. The company needs private sector investment in global education. The audience for my business plan expects Students helping Students to add value to the community and to continuously develop games that cover different topics as the company progresses. The audience also wants to see that the business will in turn generate a profit. Students helping Students begins to make a profit during the third year. Since this company focuses on helping underprivileged children, there is an aim to keep costs as low as possible. It is fine to have a loss the first two years due to the goal of helping children, and the profits will begin the third year. The company will start out small until there is a good point in time to expand.

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games was math. This is significant because it shows that it is common for games to be more effective, especially for math, which is incorporated into financial literacy topics.

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was also able to gather useful facts about the amount of states where financial literacy education is actually required.

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*Women and Financial Education*. OECD, 2013. This book went into detail about women being less financially literate than men and having less access to resources to educate themselves. This source had many charts and graphs comparing financially literacy between countries. This source was significant because my thesis is comparing two countries, so the data from this book was a good starting point to make comparisons. Also, this book brought up the issue of needing more evidence in gender differences in financial knowledge at young ages. Since my thesis is focusing on youth, I will be able to see through my findings if there is a difference in financial knowledge between genders.