#### **ABSTRACT**

Financial literacy is a concept that can weigh heavily on the emotional wellbeing of a person and when done correctly can provide great benefits including emotional, physical, and monetary wealth. However, a small amount of the U.S. population will experience this freedom. This is partially due to a lack of financial literacy education. The title of this project is *Online Financial Literacy Course for Adolescent*. The instructional design strategies included in this research are Universal Design for Learning (UDL), multimedia instructions, drag-and drop simulations, and assessments. The goal of this project is to deliver a free online financial education course for adolescent to enhance their knowledge of economics before making uneducated financial decisions. The target audience is adolescents from age 12 - 17 whose community (parent, guardians, schools) failed to teach or lacked the knowledge to teach the youth how to gain and maintain financial wealth. The end goal is to develop an online open resource for financial education that can be accessed essentially anywhere.

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#### **CHAPTER ONE**

#### Introduction

Financial literacy is a concept that can weigh heavily on the emotional wellbeing of a person and when done correctly can provide great benefits including emotional, physical, and monetary wealth. However, a small amount of the U.S. population will experience this freedom. This is partially due to a lack of financial literacy education. Most of the U.S. citizens are those who are members of the low and middle class (by trade), and more commonly have no idea of how to create a budget, save for retirement, or understand the stock market. This, in turn, causes many to live from paycheck to paycheck, borrowing money through loans and credit cards, and/or surviving from public assistance.

# **Statement of Purpose**

An online financial literacy course targeting adolescents (ages 12 to 17) was created to enhance their knowledge before making uneducated financial decisions as young adults. In terms of primary and secondary public education, many of the tangible courses that prepared youth for adulthood (i.e., home-economics and driver's education) have been terminated. The most practical subjects for adult preparation that are required in school is reading, writing, and math literacy. Financial literacy education needs to be spread among the youth, especially the underprivileged, so they could make better financial decisions as adults. Primarily, the target audience is adolescents; however, both adolescents and adults will benefit from the online financial literacy course.

The web-based financial literacy course for adolescents will help remedy the lack of financial education among our youth. This course will break down basic budgeting and

money management tips to increase financial literacy. This instructional product will address and teach learners the basic keys to financial success. Upon the success of each core financial principles, learners are able to: (a) Distinguish between wants and needs when making spending decisions; (b) Understand the intricacies of generating income; (c) Understand, create, and maintain a budget; (d) Understand and perform tasks associated with a bank; (e) Understand the pros and cons of borrowing money; and f) Understand the benefits of saving money.

#### **Research Questions**

## The following research questions were explored in this research

- 1. What factors influence adolescents to be unmotivated about financial literacy education?
- 2. Which mastery and understanding learning strategies can be used to enhance learning in an online financial literacy course?
- 3. How are motivation and behaviorism related to financial literacy and impulsivity?
- 4. How does impulsivity impact spending decisions?
- 5. What are effective ways to provide formative and summative feedback to adolescents in an online financial course?

#### Rationale

In efforts to push for financial literacy education, one must be aware of all the factors involved with making the best spending and saving decisions. As later explored in this research, the researcher predicts that negative spending decisions are positively related to impulsivity, and people who are financially ignorant typically impulsively make more negative spending decisions than those who are financially literate. The

evidence of the correctly predicted results suggests that in teaching financial literacy, the learner should be equipped with self-control skills and decision-making skills under pressure. In essence, knowledge-based financial literacy is not the only factor necessary to help one make good financial decisions, but behaviorism must be in effect as well. Behaviorism is defined as a theory of conditioning, in which human or animal behavior happens spontaneously without cognitive or emotional influence (Walker, 2015). This means that beyond knowledge, one must modify their spending behavior especially when impulse is involved. Consumer marketers and advertisers create ads to prey on impulsive buyers. If these buyers attend a financial literacy course that incorporates behaviorism to modify impulsive behavior, they would more likely make better spending decisions than those who are financially literate without behavior modification.

The researcher explores the impact Universal Design for Learning (UDL) and behaviorism have on the motivation of adolescents in an online financial literacy course environment. More specifically, the researcher integrates UDL principles and behaviorist learning theory methods into the online financial literacy course design in order to enhance student motivation.

This digital project is a learning series for financial literacy, covering topics such as making financial decisions, making money, budgeting, banking, credit, borrowing money, saving and investing. The overarching goal of this digital product is to deliver an online financial literacy course for adolescents to enhance their knowledge of economics before making uneducated financial decisions. Additionally, this digital product is based on an Open Educational Resource (OER), which is teaching, learning, and research resources that reside in a public domain or have been released under an intellectual

property license permitting their free use or repurposing by others (O'Byrne, Roberts Labonte, & Graham, 2014, p.277). Therefore, educators and learners will have access to a free financial education resource through this web-based product. Not only does this digital product fill in the gap for unoffered curriculum but also for accessibility for all.

#### **Definitions of Terms**

Below is a list of terms used in this paper to help bring clarification and understanding to terms that seem to be interchangeable but have slightly different meanings.

# Financial Literacy

The ability to process economic information and make decisions regarding wealth, financial sustainability, retirement, pensions, debt, and other financial planning issues (Lusardi & Mitchell, 2014).

### Financial Education

Curriculum geared toward teaching money management, savings and investments, spending, credit, and economic principles (Lindsey-Taliefero, Kelly, Brent, & Price, 2011).

# E-Learning

Learning carried out using electronic media as applications, programs, objects, websites, etc., that can eventually provide a learning opportunity for individuals (Moore, Dickson-Deane, & Galyen, 2011).

# **Online Learning**

A version of distance learning which improves access to educational opportunities to learners through the World Wide Web or the internet (Moore, Dickson-Deane, & Galyen, 2011).

# **Assumptions and Limitations**

Like with all research, this research has some obvious assumptions and limitations.

Assumptions:

- Adolescents gravitate to educating themselves financially since there is a need for accessible financial education courses.
- Most adolescents will not have issues navigating the online course.Limitations:
- 1. The ability to maintain learner motivation in the online course extrinsically.
- The course designer is not an expert in financial education/literacy and unaware of the quality of the course material used in the course design.

## **Overview of Remaining Chapters**

Moving forward, the research is divided into five chapters. This is the first chapter that presented and overview of the research and its associated product. Chapter Two provides a review of the literature that discusses motivation and behaviorism and its relation to financial literacy and impulsivity. Additionally, the researcher explores effective ways to provide formative and summative feedback to adolescents in an online financial course. Chapter Three provides intel on the planning of the research product along with feedback from Subject Matter Experts (SME). In the case of this project, the SMEs are Instructional Designers and professionals that work in financial

planning/management. Chapter Four illustrates the development and description of the online financial literacy course. Finally, Chapter Five discusses the findings of the analyzed feedback of the SMEs, the strengths and weaknesses of the project, and recommendations for further research for financial literacy education for adolescents.

#### **CHAPTER TWO**

#### A REVIEW OF RELATED LITERATURE

## **Financial Literacy Motivation Factors**

Motivation is defined as the inner driver for behaving or acting in a particular way (Jovanovic & Matejevic, 2014). Hendijani, Bischak, Arvai, and Dugar (2016) define motivation as the sum of intrinsic and extrinsic motivation, that in turn produce the total motivation needed to perform and complete a task. Ryan and Deci (2000) define motivation as someone who is moved or activated toward an end goal. However, because there are so many levels and types of motivation, it is broken down theoretically by the self-deterministic theory. Self-deterministic theory is distinguished by two types of motivation (intrinsic and extrinsic), which is based on the cause of the activated action toward a goal (Cook & Artino, 2016; Hendijani et al., 2016; Ryan & Deci, 2000). In intrinsic motivation, one's activated action toward a goal is prompted internally, in which one carries out a task or goal based purely on interest and/or satisfaction (Cook & Artino, 2016; Ryan & Deci, 2000). In addition, intrinsic motivation would be operationally defined as a person's free choice to engage in or pursue an activity in order to carry out an end goal. In extrinsic motivation, one's activated action toward a task is prompted externally, in which one carries out a task or goal based on an external demand or to obtain a reward (Ryan & Deci, 2000; Cook & Artino, 2016).

Mandell and Klein (2007) define motivation as being the interaction of motivation and goal setting theory. Mandell and Klein explain that three conditions must be in effect in order for goal setting theory to be successful: individual commitment to the goal, the goal setter must obtain feedback, and the individual must have the ability to perform the

task. Moreover, Cook and Artino (2016) illustrate the desire to outperform (performance goals) others or to become an expert (mastery goals) in a task is a form of motivation in goal setting theory. In addition to self-deterministic theory and goal setting theory (or goal orientation theory), Cook and Artino identify and define motivation through the orientation of two other theories: expectancy-value theory and social cognitive theory. In expectancy-value theory, motivation shapes one's expected level of success and places value on the task or goal. Motivation in social cognitive theory is driven by self-efficacy – one's belief on what they can do to produce their desired level of performance or success (Law, Lee, & Yu, 2010). Although these theories are very relevant in understanding learner motivation in the online setting, this research will focus on examining the factors that affect learner motivation and explore strategies that induce motivation while designing and implementing an online instructional course.

## **Factors that Affect Learner Motivation**

Kim and Frick (2011) discuss factors that positively and negatively affect learner motivation in an online environment. They found that cognitive overload decreases learner motivation. This is due to the work/task load being too high and the learner not having the proper resources to overcome the load. Learner's perceived difficulty of the course/tasks also reduces motivation. This is due to the learners heightened experience of anxiety, worry, and lack of confidence, which all have adverse effects to learning motivation. If a learner spends too much time attempting an assignment/task of high difficulty, this also decreases learner motivation and engagement. In addition, lack of support or feedback reduces the climate in the online environment. These factors independently and collectively decrease learner motivation.

Contrary to the factors that decrease motivation, Kim and Frick (2011) outline factors that increase the likelihood of learner motivation in the online learning environment. The learner must perceive that the course content is relevant to their personal or professional goals. Too, the learner must have confidence and be competent in technological ability. The instructor should influence and maintain learner motivation before and throughout the course. In addition to these factors, the authors provide principles to sustain learner motivation in self-directed online learning:

- 1. Provide learners with content that is relevant and useful to them.
- 2. Incorporate multimedia presentations that stimulate learner interest.
- 3. Include learning activities that simulate real-world situations.
- 4. Provide content at a difficulty level which is in a learner's zone of proximal development.
- 5. Provide learners with hands-on activities that engage them in learning.
- 6. Provide learners with feedback on their performance.
- 7. Design the website so that it is easy for learners to navigate.
- 8. If possible, incorporate some social interaction in the learning process (e.g., with an instructor, technical support staff) (Kim & Frick, 2011, p. 18).

Although the principles for sustaining learner motivation is listed above, one must be aware of the motivational characteristics of individual learners. Barak, Watted, and Haick (2016) identify five types of learners based on their goal and motivation. The *networker*, whose primary goal is to be apart of a community with similar interest. The *problem solver's* primary goal and motivation to learn is to find a solution to a problem. The motivation of a *benefactor* is to learn in order to contribute their education to their

community, society, or country at large. The *innovation seeking* learner's motivation is to be informed and updated on new technologies or innovations. Finally, the *complementary-learner* who takes a course (i.e. computer-based or technological course) to expand their regular curriculum. It is important for the instructor to know the learners' basis for taking a course. This will help in the phase of instructional adjustment when the instructor must assess the motivational level of the learner. This process will be clarified later in the paper.

Law, Lee, and Yu (2010) explain the intrinsic and extrinsic (environmental) factors that affect learner motivation. Intrinsic factors are based on the learner's attitude and expectations, as well as goals and emotions. When discussing attitude and emotion in relation to learning, expectancy theory is the culprit. "Expectancy theory suggests that motivation is a multiplicative function of three constructs: expectancy (people have different expectations and levels of confidence about what they are capable of doing), instrumentality (the perceptions of individuals whether they will actually get what they desire) and valence (the emotional orientations people hold with respect to outcomes or rewards)" (Law et al., 2010, p. 220). The characteristics of extrinsic factors are similar to behaviorism in which learner motivation is affected by external or environmental factors. Reinforcement theory in the learning environment is the relationship between the learner's behavior and the consequence the learner receives. For example, a student submits an excellent report on current events (behavior), then the online instructor provides the learner with a high grade, positive feedback, and encouragement (consequence). In this case, the consequence is reward and recognition which in turn induce motivation for the learner. Contrary to rewards and recognition, the right amount

of punishment can induce motivation. The most common form of punishment in traditional and online classroom settings is assignment deadlines or due dates. The punishment would be points taken off for late assignments or the inability to turn in late assignments. This promotes learner course engagement as well as promote learner motivation to complete assignments and tasks.

# Keller's ARCS Model and Implementation Strategies

The purpose of Lin's (2000) study was to examine motivational problems that arose within the online learning setting using Keller's ARCS Motivational model of instructional design. This involves four conditions, and once fulfilled can promote and sustain motivation in the learner (Cheng & Yeh, 2009; Lin, 2000). The four conditions of ARCS are based on a continuum and they are Attention, Relevance, Confidence, and Satisfaction, in which the first letter of each word is the acronym of ARCS. In order to encourage learner motivation, strategies for Attention and Relevance were used in the designing process of the instructional content an operation of the course. Many other strategies were used to enhance learner Confidence and Satisfaction of the online learning experience. More specifically, to increase learner attention, motivational adjustment strategies were enacted where motivational problems arose. This included the incorporation of multimedia in course design, frequent course attendance reminders, task and assignment reminders, and encouraging students to be more self-directed in their online learning experience. Relevance in motivational learning requires a clear and on topic understanding of concepts, tasks, and objectives of the course. Strategies used to mediate motivational problems of relevance include readdressing key points in course

readings, providing clarification for learning tasks and activities, and facilitating on-topic discussions in discussion forums.

In order to enhance the confidence of learners, a final research project was assigned to assess course knowledge instead of an exam, instructor guidance was provided for students individually, and timely feedback was provided after a task, assignment, or activity was completed. Satisfaction involved how students felt about the knowledge they received from the course. In effort to increase learner satisfaction, the instructor provided encouragement to students, conducted face-to-face meetings, sent reminders to students, and reached out to students who showed minimal involvement. Overall, the researchers found that higher involvement in discussion forums led to high course completion scores. In the event where learners display motivational problems, it is the duty of the instructor to make adjustments to the problems. Presented in table 2 is a summary of common motivational indications that instructors should be aware of when assessing for motivation using the ARCS model.

Table 1.

Motivational Indications Summarized Based on ARCS Models

Attention	Relevance
Different modes of learning	Appropriate resources
Real-life experiences	Accustomed communication mode
Peer reminding	Flexible learning time
Feelings of instructor's involvement	Personal importance
Discussion and work on assignment	Accustomed experiences
Reminding from the instructor	Feelings of usefulness
Confidence	Satisfaction
Reflection from learning materials	Learning materials useful and practical to
Assessment of learning through	life and future work
organization	Achievement of learning objectives
Interest and involvement in given tasks	Achievement of challenging tasks
Getting familiar with learning resources	Verbal reward for affirming effort
Interactions with peers for sharing	Enjoyment of interactive messages from
thoughts	others
Exchange of ideas	Feelings of learning-needed knowledge

Source. Adapted from ChanLin, 2009, p. 101.

Similar to the motivational suggestions of ARCS discussed above, Keller and Susuki (2004) illustrate a ten-step design process to induce motivation using ARCS in the online learning environment, see Table 3. After drawing conclusions of other researchers that used the ARCS Motivational Model to design their course, the researchers found that ARCS is a proven model to enhance learner motivation.

Table 2.

**ARCS Motivational Design Process** 

Step	ARCS Motivational Design	Description
	Obtain course information	Course description, objectives, and course delivery methods
	Obtain audience information	Learner's skill level and attitude towards school and course.
	Analyze audience	Seek level motivational level and way to modify low motivation
	Analyze existing materials	Keep positive feature and modify deficiencies or problems
	List objectives & assessments	List motivational design goals and learner behavior
	List potential tactics	Brainstorm for motivational tactics throughout course
	Select & design tactics	Use integrated, enhancing, and sustaining motivational tactics
	Integrate with instruction	Combing motivational strategies with course design
	Select & develop course materials	To modify for low learner motivation
	Evaluate & revise course design	Obtain learner reactions/satisfaction levels and revise course if necessary

Source. Adapted from Keller and Suzuki, 2004, p. 233.

When discussing motivation in the context of the classroom, it can be described as the student's willingness to and reasons for engaging and participating in class activities and tasks. Consequently, Chen and Yeh (2009) developed online course design strategies to enhance motivation by integrating the ARCS motivation model, phases of ARCS, the instructional design process, steps of motivational design, and interpretations of the entire process.

As for Attention, in the ARCS motivational model, the goal is to gain and sustain the attention of the learner. The role of the instructor is to introduce topics and events to learners to peak their curiosity and interest. Relevance comes into play when the instructor gains the learner's attention. In the relevance phase, motivation may be obtained if the course content meets the needs of the learner and is presented in various modes of learning that is comprehensible to the learner. For Confidence, if the learner believes their probability to succeed is high, based on the relevance of the course, this may cause the learner to be more confident, and in turn, motivated to remain engaged, persist, and gain achievement in the course. In the final phase, learner Satisfaction will be realized if the learner's effort in the class/assignment/task is consistent with their expected outcome. This may help the learner continue to be motivated to learn.

The second component of Chen and Yeh's (2009) modified version of the ARCS Model involves the application of instructional design called motivational design. This provides a systematic design framework of instructional design that can be integrated with other instructional design models. The four steps of motivational design are: define, design, develop, and pilot. Step 1 (define phase), to assess the level of learner motivation, create motivational objectives, and develop methods for assessing objectives. Step 2 (design phase), to create motivational strategies to address motivational objectives, then integrate those strategies into the instructional content. Step 3 (develop phase), integrate motivational strategies with learning materials and conduct developmental tests for the learner. Step 4 (pilot) administering instruction and making revisions when necessary. In addition to using the motivation design based on the ARCS model, this article integrated another instructional design model developed by Morrison, Ross, Kemp, and Kalman (2010). This model includes the four ARCS phases, instructional design elements, motivational design steps, and the interpretation of each step, see Appendix A for details.

# Testing the Effectiveness of Applied ARCS

Besides providing systematic procedures for inducing learner motivation using the ARCS model, other researchers test the effectiveness of the presented models. Song and Keller (2001) tested the effectiveness of a motivationally adaptive computer-assisted instruction (CAI; online instruction) using the ARCS' (Attention, Relevance, Confidence, and Satisfaction) motivational strategies. Two versions of the CAI were tested. The first CAI version was loaded with motivational tactics (motivationally saturated) and the second CAI version incorporated minimal motivational strategies (motivationally minimized). They found that the motivationally saturated CAI scored the lowest in relevance. This means that because there were so many strategies used in the instructional content to increase motivation, this additional content depresses the perception of relevance to the topic. In other words, there was too much going on in this course and the focus was broadened. Additionally, they found that the motivationally minimized CAI had the higher rating for efficiency. This means that the CAI was more efficient because it contained a lesser amount of content than the motivationally saturated. Also, the instructor should assess for learner motivation levels before, during, and after implementation of the course and adjust motivational strategies as needed.

ChanLin (2009) monitored the effectiveness of a newly created online Computer Ergonomics course using the ARCS Motivational Model. The author found that positive correlations between discussion forum participation and overall performance in the course. This means that the learners who participated more in discussion forums scored higher in the overall course. In other words, the more involved a learner is, the higher their achievement will be in the class. This study also found that constant reminders in

the course help sustain learner engagement. Overall, the findings conclude that ongoing analysis of learner motivation with proper motivational adjustments will increase learner involvement and confidence in the online setting.

Overall, in order to create an effective online course, the goal would be to integrate appropriate motivational factors in the instructional design, that will translate external motivation to a more intrinsically motivated orientation of the learner. It has been stated that the learner must find any subject matter to be relevant and/or important in order for the learner to be motivated and engaged in any learning task (Mandell & Klein, 2007). Therefore, providing learners with multimedia styled lessons, prompt feedback, frequent assignment reminders, and a social orientation online (i.e. discussion forums and peer feedback), are all extrinsic factors that promotes learner motivation. Recommendations of ways to induce motivation is the utilization of ARCS motivational model that provides strategies on promoting and sustaining learner motivation during and throughout the design and implementation of an online course design. In sum, the overall mission in the development of an online instructional course is to use empirically supported tactics and strategies (ARCS) to induce learner motivation in order to influence course completion in the online setting. After applying factors that enhance learner motivation in the course design, one should also integrate a lesson covering the effects that impulsivity has on spending decisions.

#### **Impulsivity and the Impact on Spending Decisions**

Impulsivity is a concept that is known to be prevalent in clinical psychology and psychopathological disorders, however, Zermatten, Linden, d'Acremont, Jermann, and Bechara, (2005) highlight that impulsivity is far more common and can be broken down

into four components. The components of impulsivity include: Urgency (strong impulses); Premeditation (thoughts of consequences before taking action); Perseverance (constant focus on a task); and Sensation seeking (novelty/enjoyment/excitement).

Whiteside and Lynam (2001; Zermatten et al., 2005) developed the UPPS Impulsive Behavior Scale to assess impulsivity (Appendix B). The purpose of this study is to examine the relationship of the four components of impulsivity and the decision-making process. The authors hypothesize that the lack of premeditation is directly related to poor decision making.

Thirty undergraduate participants completed the UPPS self-assessment and proceded by completing the computerized version of the Iowa Gambling Task created by Bechara, Damasio, A., Damasio, H., and Anderson (1994) and Zermatten et al., (2005). They found that lack of premeditation is the only component of impulsivity that affects the decision-making process.

Moreover, this next study sets out to explain impulsivity as it relates to compulsive buying. According to Billieux, Rochat, Rebetez, and Linden (2008), "[c]ompulsive buying is defined as uncontrolled and excess purchases leading to personal and family distress"(p.1432) The four factors of impulsivity were used to assess its contribution to compulsive buying. They predict that (a) Urgency contributed to compulsive buying in association with negative effect or emotions; (b) the lack of premeditation is related to the reduced ability to consider negative consequences of purchases; and (c) compulsive buying is related to the sensations seeking component of impulsivity which promotes pleasure and/or excitement (Billieux et al., 2008, p.1435). Moving forward, 150 participants from the University of Geneva responded to four

questionnaires: The UPPS Impulsive Behavior Scale (UPPS), Questionnaire about Buying Behavior (QABB), The Trait Anxiety Inventory (STAI-T), and The Short Depression-Happiness Scale (SDHS) (Billieux et al., 2008, p.1435-1436). They found that there was a significant correlation between three components of impulsivity (urgency, lack of premeditation, and lack of perseverance). Ultimately, the only significant factor of compulsive buying is urgency. Moreover, the sense of urgency must be coupled with negative affect. They also found that compulsive buying is related to lack of perseverance and lack of premeditation independently. The authors correctly predicted their first two predictions.

In sum, the researchers who were addressing financial literacy define and call for financial literacy education. Not too many research articles have results for the applied effects of financial literacy. More longevity financial literacy studies would be helpful in pushing the urgency of financial education in the schools. When discussing impulsivity, the researchers suggest that two facets of impulsivity largely affect our decision making and compulsive buying, that is urgency and lack of premeditation. For my research, I further want to explore lack of premeditation and the impact it has on spending decisions. Ultimately, what is the relationship between impulsivity and financial literacy (independent variable) on negative spending decisions (dependent variable)? The hypotheses are as followed: (1) Negative spending decisions are positively related to impulsivity; (2) People who are financially ignorant may impulsively make more negative spending decisions than those who are financially literate.

In efforts to push for financial literacy education for adolescents, one must be aware of all the factors involved with making the best spending and saving decisions. As

a reminder, the researcher predicted that negative spending decisions are positively related to impulsivity, and people who are financially ignorant may impulsively make more negative spending decisions than those who are financially literate. The evidence of the correctly predicted results suggests that in teaching financial literacy, the learner should be equipped with self control skills, and decision-making skills under pressure. In essence, knowledge based financial literacy is not the only factor necessary to help one make good financial decisions, but behaviorism must be in effect as well. Behaviorism is defined as "the theory that human and animal behavior can be explained in terms of conditioning, without appeal to thoughts or feelings, and ... by altering behavior patterns" (Psychology Field Related, n.d.). This means that beyond knowledge, one must modify their spending behavior especially when impulse is involved. Consumer marketers and advertisers create ads to prey on impulsive buyers. If these buyers attend a financial literacy course that incorporates behaviorism to modify impulsive behavior, they would more likely make better spending decisions than those who are financially literate without the behavior modification.

The major limitation is internal validity, due to the fact that part of the analysis is correlational. Correlational studies tend to have lower internal validity because it has a higher susceptibility to confounding variables (Anderson & Bushman, 1997). Confounding variables are variables that are not the independent variable that affect the outcome/results of the dependent variable (McDonald, 2014). Participants may confound the results of the M-UPPS scale by guessing, exaggerating, and/or carelessly answering the response portion of the scale. This will negatively affect the results of the dependent variable.

In future research, it would be beneficial to test the results of this study by using behaviorism and removing the impulsivity aspect. This means that instead of having participants assess for impulsivity, the participants can be randomly assigned to a condition where they are given tips on positive spending decisions before they complete the scenario portion of the experiment. Those in the control condition will not receive any spending decision tips. Moving forward, in order to validate course curriculum, evidence-based research involving adult learning theories and its relationship to financial literacy must be addressed.

# Relationship between Motivation and Behaviorism with Financial Literacy and Impulsivity

Mandel and Klein (2007) test the relationship between motivation and financial literacy. High school seniors from various schools throughout the U.S. from 1997 to 2006 were tested on their financial literacy. Financial literacy was evaluated by four knowledge areas: income, money management, spending and credit, and saving and investing. They found that students scored higher in financial literacy in regard to the stock market game, because students are motivated to learn by playing a real-time, fun, interactive game. In addition, students who believe being motivated to save money for retirement also scored higher in the financial literacy assessment. Moreover, students who set future goals and have a deep appreciation of how financial literacy will help obtain goals scored higher on the literacy assessment. Overall, they found that motivation is the key driver to financial literacy.

Thomas, Mulyono, and Setiaji (2016) set out to find which mediating factor – motivation, self-efficacy, and financial knowledge – is necessary to translate financial

education to financial literacy (competence applied and obtained through financial education). The researchers used 4,479 students majoring in either Accounting, Economics Development, Management, or Economic Education to respond to a questionnaire testing financial education, financial literacy, motivation, self-efficacy, and financial products and its uses. They found that financial education does not have a direct effect on financial literacy, financial education has a direct effect on motivation, and motivation has a direct effect on financial literacy. In sum, motivation is the mediating factor that translates financial education to financial literacy. Moving forward, is there a relationship between behaviorism and impulsivity?

#### **Behaviorism**

Behaviorism began with Watson's (1913) viewpoint that through consistent and repetitive stimulus an observable behavioral response should follow in a manner of reflex or habit (Moore, 2011). This is known as classical S-R behaviorism. Behaviorism focuses on external observation of the relationship between stimulus and response, while completely rejecting the notion of introspection and internal mental states (Boghossian, 2006). Ertmer and Newby (2013), define and describe behaviorism in terms of learning behavior. The researchers believe behaviorism is learning that is displayed through the proper response to a stimulus. Furthermore, in addition to a stimulus, the learner must be in an ideal environmental condition to induce learning. This type of environment uses reinforcements or consequences such as rewards or punishments to assist in making the learner's response habitual to the stimulus. Bates (2015) second this concept which is known as operant conditioning develop by B.F. Skinner (2016).

## Relation of Behaviorism to Impulsivity

Unfortunately, there are no known studies that test or compare the relationship between impulsivity and behaviorism. However, there are plenty of studies relating the two for people who suffer impulsivity issues due to addictions, substance abuse, or psychological disorders. Relating the two constructs using those studies in this case would not be useful. On the surface, it is seemingly difficult to extract the cause of one's externally observable behavior while measuring behaviorism and impulsivity. One would have to rely on self report measures to understand the response to one's behavior. This method of testing would be flawed because the average person could not distinguish operant conditioning (behaviorism) from an impulsive response. Operationally, behaviorism and impulsivity are similar. As mention previously, behaviorism is one's automatic response to a stimulus without internal mental processing (Boghossian, 2006). Meanwhile, impulsivity in this case is the sense of urgency and lack of premeditation. This, in turn minimizes internal cognition in the decision-making process. Therefore, both constructs entail minimal to no involvement of mental cognition or thinking when behaviors are observed empirically. Although there were no studies that related behaviorism and impulsivity, there are many studies that illustrate the relationship between behaviorism and motivation.

# Relation of Behaviorism and Motivation

There are aspects of operant conditioning that is positively and negatively related to motivation. When external reinforcements such as rewards are coupled with motivation, Koch, Nafziger, Suvorov, and van de Ven (2014) claim that rewards increase motivation. The researchers found that when individuals apply self-reward contingencies

on completion of an end goal, their motivation increases, and they are more likely to obtain the end goal or behavior. However, the strategy for successful self-rewarding, is for the individual to place a proper value (not too high and not too low) on the reward to help motivate individuals to complete end goal.

In contrast, several studies debate the notion that external rewards increase motivation, but instead decrease motivation. Ryan and Deci (2000) found that extrinsic rewards undermine motivation and shifts the focus of intrinsic motivation to and external cause. Jovanovic and Matejevic (2014) support these findings stating that rewards and reinforcement deprives an individual of interest in an action, and as a result, harms intrinsic motivation. Finally, Hendijani et al (2016) agrees that extrinsic rewards undermine motivation and is detrimental to an individual's performance on a task or end goal. Similar to the roles of behaviorism being a direct contrast to intrinsic motivation, extrinsic motivation is also a direct contrast to intrinsic motivation. Extrinsic motivation is related to behaviorism because they both involve external instruments (rewards, punishments, reinforcements) to obtain a behavior or end goal (Ryan & Deci, 2000).

Overall, the relationship of behaviorism and motivation is both positive and negative. There is a similar effect of operant conditioning and extrinsic motivation in which they both use external consequences or reinforcement to induce an outcome. The negative relationship between intrinsic motivation and behaviorism is that operant conditioning overrides intrinsic motivation and shifts the focus to an external locus of causality. However, there seems be a way to relate behaviorism and motivation to produce effective financial literacy education to reduce impulsivity and negative spending decisions.

In efforts to push for financial literacy education, one must be aware of all the factors involved with making the best spending and saving decisions. As a reminder, the researcher predicted that negative spending decisions are positively related to impulsivity, and people who are financially ignorant will impulsively make more negative spending decisions than those who are financially literate. The evidence of the correctly predicted results suggests that in teaching financial literacy, the learner should be equipped with self-control skills, and decision-making skills under pressure. In essence, knowledge based financial literacy is not the only factor necessary to help one make good financial decisions, but behaviorism must be in effect as well. Behaviorism is defined as a theory of conditioning, in which human or animal behavior happens spontaneously without cognitive or emotional influence (Walker, 2015). This means that beyond knowledge, one must modify their spending behavior especially when impulse is involved. Consumer marketers and advertisers create ads to prey on impulsive buyers. If these buyers attend a financial literacy course that incorporates behaviorism to modify impulsive behavior, they would more likely make better spending decisions than those who are financially literate without the behavior modification.

# Learning Strategies that Can be Used to Enhance Learning in an Online Financial Literacy Course

Olsen (2017), created a readily available resource for high school instructors, including curriculum and material to aid in financially educating high school students. Olsen (2017), differentiates financial literacy and financial education and stresses the importance of teaching adolescents about the four major financial categories: money, borrowing, investing, and protecting resources. An organization called the Council for

Economic Education (EE) is one of the leading organizations in the United States that push for financial education for adolescents and have developed a standard for financial education that could easily be integrated into high school curriculum (Olsen, 2017). The standard topics are earning income, buying goods and services, saving, using credit, financial investing, and protecting and insuring assets. Recommendation of how to train instructors to teach financial education is provided, along with suggestions on how to relate the financial material to adolescents with mild familiarity with financial management.

Dell, Dell, and Blackwell (2015) present guidelines for designing online courses using Universal Design for learning (UDL). They combine the three UDL principles – Presentation, Action, and Expression and Engagement – to serve as the foundation of the tens steps to create an online course. The ten practical steps to implement a UDL embedded online course are included in the following sentences. Presentation – create content first the design; provide simple and consistent navigation; include an accommodation statement; use color with care; and choose fonts carefully. For Action and Expression – instructors should model and teach good discussion board etiquette. For Engagement and Interaction- choose content management system (CMS) tools carefully; provide accessible document formats; and convert PowerPoints to HTML. If the content is auditory, make it visual, If the content is visual, make it auditory.

Similarly, Meo (2008) shares a process of planning for learners (PAL) to connect Universal Design for Learning (UDL) to curriculum planning for high school reading comprehension classes. PAL is a four-step process of curriculum planning based on the principles of UDL. The first step is to set goals that challenge all students appropriately.

The second step is to analyze and assess the methods, assessments, and material currently used in the classroom. After curriculum assessment, their third step is to revise the curriculum UDL principles to the lesson. The final step is to teach the UDL infused lesson. Additionally, the author provides an illustration of how the PAL process is applied in a case study.

Once again, like many other articles, this article references UDL in curriculum development. However, this article offers a lesson planning guideline along with other teacher development resources to aid an instructor with each step of PAL. The author mentions that PAL is derived from CAST (2004), which leads one to question the relevance and validity of PAL since PAL is over a decade old. Although PAL is no longer referenced, basic three principles of UDL are unchanged and presents as the core of UDL and the most reliable in terms of research-based evidence of successful implementation of UDL. Therefore, this article will serve as evidence of the stability and reliability of my research topic.

King-Sears (2009) outline and discuss the technological and pedagogical applications of the seven principles of UDL. These principles include flexibility in use; equitable use; simple and intuitive use; perceptible information; tolerance for error; low physical effort; and size and space for approach use. Flexibility in use is when teachers design their instruction to accommodate students based on their learning preference and ability. This may involve the use of technology along with verbal instruction (pedagogy) to maximize the number of learners who understand the learning content. Equitable us is the technological approach to instruction to maximize the ease of accessibility of instruction versus the use of only a textbook. Perceptible information is the various way

instructional content is present to learners. Through technology, content can be displayed through PowerPoints, video, website, software, etc., while pedagogy of perceptible information is the combination of clear verbal instruction and the use of technology.

Tolerance for error is simply giving students the opportunity to "try again" if they made errors in their learning. The opportunity for feedback in the pedagogical sense presents an opportunity for instructors to provide guidance and feedback, and an opportunity to correct their mistakes.

Simple and intuitive use is the organization of learning content presented in list form and grouped based on classification or categories. Low physical effort is when materials or activities are designed for students with learning or physical disabilities ease of use. These materials may include software or an adapted keyboard. Finally, size and space refer to the size of the content being displayed, along with the content presented in a clutter less format. Written instruction, graphics, and videos should be readable and clear.

This article is helpful and provides a detailed breakdown of technological and pedagogical principles of UDL, along with providing examples of how and how not to apply these principles to instructional design. However, these UDL principles are out of date or serves as the foundation of UDL principles. Currently, the foundational principles have been revised to nine options that are categorized under the multiple means of Expression, Representation, and Action and Expression.

The researcher explored a three-block model incorporating UDL to assess social and academic engagement in traditional classrooms for students in grades K-12 (Katz, 2013). The first block is the system and structure of this study, including policies,

procedures, and budget. The second block is inclusive instructional practice, which is the instructional framework using UDL principles teacher will use in the treatment group.

The final block is social and emotional learning, which is a program to help develop compassionate communities. The program involves teaching students to respect diversity, value diversity, and exercise democratic classroom management.

This was a quasi-experimental study with a control group to compare with treatment groups that receive pre/post assessment of academic and social engagement. They found that students are much more engaged in classroom curriculum when UDL principles are applied to curriculum design compared to the controlled group. Students in the treatment class reported higher in student autonomy compare to those in the control group. Students in the treatment classroom interacted more with staff and peers and were more autonomous than the students in the control group who spent more time not interacting with others.

These findings are related to most research-based studies that show statistical significance proving that the incorporation of UDL will promote student engagement. The results of the study yielded very high significance in findings. This study provides information regarding interactivity and lesson duration that could help an instructional designer develop a lesson plan.

McGhie-Richmond and Sung (2013) examine the effect of UDL in a teacher education program that pushed for inclusive education with general students and students with special needs. Teachers that had established lesson plans revised their lesson plan to incorporate UDL principles. They were known as the Pre-Service group in the study. The comparison group included teachers who practice and incorporate UDL into their lesson

plan. They were known as the Practicing group in the study. The researchers examined the types of changes teachers made in their revised UDL based lesson plan. In the quantitative results, preservice teachers made the most lesson revisions in all the three UDL learning principles (representation, expression, and engagement) and sub-principle options compared to the practicing teachers, except in the option of language in representation and self-regulation in engagement. I the qualitative results, the teacher's reflections on their revised lesson plan uncovered two main themes: learning for all and transformative practice. Learning for all requires teachers to reduce student barriers, cater to student learning preferences, and focus on the strengths of a student. Whereas, transformative practice involves teachers embracing UDL in instructional design.

Overall, the purpose of applying UDL in instruction is to create a learning environment for all learners that promotes adaptability for all student regardless of their abilities or disabilities.

The goal of this article is to provide research to support Canadian Government policy in pushing for educational inclusion for students with disabilities to be educated in general education classes alongside their peers. Universal Design for Learning is one of the only learning guidelines with principles that promote all-inclusive learning despite one's learning abilities. This article includes many instructional design resources like lesson plan templates that cater to UDL. Since the target audience the online financial literacy course are adolescents, the course design cannot be based on standardized capabilities, instead, it would have to incorporate an all-inclusive approach to design. Therefore, the bigger picture in online course design is inclusivity.

Howard University's School of Business developed a financial literacy curriculum. The foundation of the curriculum was based on Credit Smart®, which is a financial education curriculum that aids in the building and maintaining of credit, tips on making better financial decisions, and preparation for home ownership (Lindsey-Taliefero, Kelly, Brent, and Price, 2011). Four courses are offered in Howard University's financial education curriculum: a) Principles of Personal Financial Planning, which teaches students how to set up financial affairs and estates for individuals and families; b) Personal Money Management, which instructs students on financial management decisions for credit, banking, taxes, estate planning, retirements, and employment benefits; c) Business Orientation, which instructs students on money managing, goal setting, budgeting, and credit use in the corporate environment; and d) Managerial Economics, which teaches students how to make decisions for corporations using economic principles. In addition, students could openly enroll in money management, credit smart, and investment workshops. The author compared student's financial education (this curriculum) to Jumpstart's sample of African American participants. They found that Howard University's students scored higher than Jump Stats sample in the income, money management, saving and investment, spending, and credit financial education categories. Overall, Howard University students scored a total of seven percentage points more in the financial education assessment than Jump Start's sample.

The goal of this article is to evaluate the effectiveness of the financial education curriculum at Howard University. The background literature review coincides with literature that supports the notion that African Americans, women, and people with low

socioeconomic status lack the financial foundation to make sound financial decisions (Lusardi, 2015). Although the curriculum was created for college-level students and the target group in this paper is adolescents, the curriculum content will be used to compare the content to other articles that address financial education curriculum for adolescents. All the curriculum topics that overlap (i.e., savings and credit), will be used to develop an online course curriculum for financial literacy.

Buchheister, Jackson, and Taylor (2017) used the principles of UDL and inclusion to incorporate math games to address mathematical content such as reasoning and problem-solving. The purpose in using games to teach mathematical components is that games promote learner motivation and they incorporate principles of UDL. Just as the UDL involves multiple means of representation, games have the ability to be varied and modified, that way all students can participate in game learning, problem-solving, and strategy development, despite their learning abilities. The authors also provide solutions to barriers of a card game called "Double Compare," which is infused with the three principles of UDL (presentation, expression, and engagement). The goal of this article is to embed the principles of UDL through multiple modes of representation, expression, and engagement in a game to aid in the instruction of math.

Similar to Buchheister et al. (2017), Hunt and Andreasen (2011) describe UDL and illustrate how to incorporate UDL in a mathematical lesson plan. The authors illustrate UDL in lesson planning by using for components: learning goals, instructional material, instructional methods, and assessment. Learning goals involve measurable and observable learning objectives. It is the responsibility of the instructor to allow for multiple means for students to display their knowledge. Teachers should reduce

/minimize potential barriers that students with limitations may have when utilizing the learning material. Using instructional methods that promote discussion an allow students to generate their own problem-solving strategies will enhance engagement and promote a meaningful experience in learning. When it comes to student learning, assessment is important for instructors to provide learners with flexible options to display their knowledge. The authors suggest using formative or summative options of assessment. Formative assessment is an assessment approach that helps teachers understand their student strength and weaknesses in terms of curriculum. One example of formative assessment in assessing comprehension is to task students with researching articles and write annotated bibliographies summarizing the main points of a particular research topic. Summative assessment is an assessment that is based on a point or scoring system.

Common types of summative assessments include exams, a research project, or a written paper.

This article provides examples of how to enhance instructions using the UDL framework. Also, the authors outline barriers that could exist with assessment and provide UDL based solutions to resolve those barriers. The UDL principles and application of UDL in lesson planning has once again been reiterated and substantiated.

Brand, Favazza, and Dalton (2012) define and demonstrate how to create a lesson plan utilizing the four principles of UDL. The four principles of UDL involves all three multiple means of representation, engagement, and action and expression, along with multiple means of measuring student's understanding through assessment. In assessment, the authors recommend that instructors use one or more option of in lesson planning including: method, formats, scope/range level, product and outcome, and feedback. For

each of the principles and options, the researchers provide applicable suggestions on how an instructor can incorporate these principles in a lesson plan.

This source is very helpful because it provides addition principles of UDL that the UDL Guidelines (CAST, 2018) does not provide. In comparison to other sources, this article uses an actual lesson plan as an example to explain how to design instruction using UDL and incorporate assessment methods. Additional resources below differentiate and compare formative and summative assessment to enhance learner achievement in an online environment.

# Effective Ways to Provide Formative and Summative Feedback to Adolescents in an Online Course

Kibble (2017) reviews the best practices of assessment, how to align assessment with expected learning outcomes, and how to measure learning outcomes to improve instruction. There are two forms of assessment, summative and formative. Summative assessment is a learning measurement tool that measures student learning after a period of instruction. Formative assessment is a form of assessment that can be given during any period of instruction. However, the primary role of formative assessment is for instructions to provide feedback to students to enrich the student learning process. When creating high quality assessments, incorporating the following criteria are important:

Reliability, which is the reproducibility of the assessment; Validity or the ability of the assessment to measure what it is suppose to measure; Feasibility or cost effectiveness which is related to how realistic the test is compared to the context of instruction;

Acceptance or alignment with stakeholders on the process and results of curriculum and Educational impact is when the assessment motivates student to hone in on the benefits of

the educational materials. The author makes the case that the best practice in course development is to focus on learning out comes that are influenced by practical summative assessments.

The author suggests using the cognitive process of Bloom Taxonomy (applying, analyzing, evaluation, and creating) to align learning outcomes with assessment to improve course curriculum. Along with Bloom taxonomy, the author describes a taxonomy based on assessment called Millers Pyramid (cite). Miller's pyramid helps instructors select the proper assessment tool based on a learning competency continuum. The learning competency starts with *the knows* (knowledge based), *the know how* (know what should be done), *the shows* (the ability to demonstrate a skill), and *the does* (applying competency in real life. The authors also outline assessment tools and describes the advantages and disadvantages of using each tool.

In sum, the best practice in curriculum design is to design backwards. Focus on defining learning outcomes with proper or more suitable assessments that can properly measure the learning outcomes.

Hoover and Abrams (2013) evaluate the frequency of the use of summative assessments in formative ways to measure student learning and understanding. Using the Classroom Assessment Literacy Inventory (CALI) via Survey Monkey, the researchers set out to find the different types and frequency of summative assessment instructors administer to learners. In this study, assessments are considered summative because they are conducted post-instruction. Formative assessment is the primary tool for data driven decision making (DDDM; Hoover and Abrams, 2013), in which the instructor tailors instruction practice according to learning outcomes and understanding. This is the

operational definition of teacher-generated assessment. The researchers found that teacher-generated assessment, common departmental assessment, and district benchmark assessments are most frequently administered on a weekly or quarterly bases. Overall, this study suggest that data assessments or formative assessments are not generated enough to increase student learning or understanding. All in all, summative assessments are rudimentary to instruction, however, frequent formative data assessment will advance instruction and enhance student learning and understanding to a mastery level.

#### Formative Assessment

Lawton, Bransford, Sander, Richey, French and Stephens (2012) provide evidence-based results to find if or how formative feedback impacts an online course. The impact of feedback varies based on the type of feedback and various methods of feedback. Overall, feedback can have a positive impact on learning; however, different forms of feedback yield different results. Formative assessment promotes learning achievement compared to summative assessment based on direct instruction. There are levels of formative assessment classified by Nyquist (2003), based on a continuum of feedback: *Weaker feedback* which involves validating learn response to *strong formative feedback* where learners receive validation for correct response, along with an explanation of the correct answer and activities to improv learning.

The purpose of Lawton et al's (2012) research is to find how formative assessment can support learner knowledge and skill development in an online learning environment. The authors propose that formative assessment in the online learning environment is a strategy that enhances the learning community's (learner, peer, and instructor) interaction and collaboration (Gikandi, Morrow, and Davis, 2011). This results

in more learner support and engagement. A qualitative analysis of the literature (total of 91 articles) were reviewed that included key features of formative assessment:

Assessment activities embedded within instruction, variety of assessment activities, ongoing feedback, learning outcomes outlined through assessment rubrics. They found ways to validate, sustain reliability, create functional online learning assessments. All formative assessment should be authentic or applicable to real life situations, feedback should be timely, ongoing, and easy to understand, along with providing adequate learner support. In order for online formative assessment to be reliable, learners should be provided with an opportunity to demonstrate their understanding by documenting the evidence of their learning. By doing this, it provides the instructors opportunities to measure the learners level of understanding of the learning content. When an instructor provides various approaches and perspectives, it leads to multidimensional evidence of learning. Finally, the availability and disbursement of clearly defined and interpretable rubrics, supports learners by allowing student to assess their learning.

Since formative feedback has been founded to promote learner engagement, increase levels of achievement, and enhance student's motivation to learn, Vanderwell and Boboc (2013) provide multiple formative assessment strategies tailored to the online environment. Along with strategies, the authors provide options, tips, and suggestions for instructors to embed and tailor formative assessments according to the needs of the learners and the format of instruction. The examples of formative assessment for online learning are online journaling reflection paper, The Minute paper, role-playing, hook questions wall, and checking in with students. The article is especially useful to me

because the authors provide a diverse set of formative assessments that employs cognition or higher order of thinking.

On the contrary, Grosas, Raju, Schuett, Chuck, and Millar (2016) set out to find whether the formative assessment process will enhance or increase student performance or outcome of final summative exams. In this study, multiple assessments were given throughout that semester, that served as a pre-test and replicated test items of the final summative assessment. All these forms of formative assessment were compared the final exam (summative assessment). Formative assessment was operationalized as individual feedback given to students, frequent review of a lesson, or direct emphasis on various elements of the lesson. They found that formative assessment did very little to increase or enhance the outcome of the summative assessment. The problem is that the verbal feedback was to shallow. This means that the instructor praised correct answers and provided the correct response to wrong answers. In all, this did not allow students to thin critically or reflect on the subject matter.

Moving forward, instructors should have a tool to measure the effectiveness of their formative feedback. If the formative feedback lacks effectiveness, the instructor should be prepared to approach the lesson in a different way.

# Summary

This chapter provided a review of the literature that discusses motivation and behaviorism and its relation to financial literacy and impulsivity. Additionally, the researcher explores effective ways to provide formative and summative feedback to adolescents in an online financial course. Chapter Three provides intel on the planning of the research product along with feedback from Subject Matter Experts (SME) and Instructional Design Experts (IDE). In the case of this project, the SMEs are professionals that

work in financial planning/management or have advanced degrees. Chapter Four illustrates the development and description of the online financial literacy course. Finally, Chapter Five discusses the findings of the analyzed feedback of the SMEs, the strengths and weaknesses of the project, and recommendations for further research for financial literacy education for adolescents.

#### CHAPTER THREE

#### **METHODOLOGY**

## Research Design

The project titled *Online Financial Literacy Course for Adolescents* was designed following the Successive Approximation Model 2 (SAM 2) model (Allen & Sites, 2012). The researcher chose to use SAM 2 for the development of the digital product because this model of development is ideal for large and complex projects. This digital product qualifies as a large and complex project because it not online involves the development of an e-Learning course design, but also involves the development of a website to house the e-Learning *Online Financial Literacy Course for Adolescents*.

The evaluation of the *Online Financial Literacy Course for Adolescents* project was completed by subject matter experts (SME) and instructional design experts (IDE) who evaluated the project using a combination of quantitative and qualitative surveys.

Appendix C includes the Institutional Review Board (IRB) waiver letter and which includes a letter from the Master of Science in Instructional Design and Technology that explains the evaluation process completed by SMEs and IDEs.

## **Participants**

An email was sent out to solicit the participation of SMEs and IDEs (See Appendix D for email template). A total of four (2 SMEs and 2 IDEs) evaluated and reviewed the website, <a href="www.twealth.org">www.twealth.org</a>, and the *Online Financial Literacy Course for Adolescents*, which is embedded within the website.

# Subject Matter Experts as Evaluators

Two SMEs served as evaluators of the digital product. Both SMEs have occupations as educators in the university setting with advanced degrees in Education. They received their advanced degrees at California State University, Fullerton. These SME characteristics are important for evaluating the digital product because they have experience in curriculum planning, analyzing the quality and appropriateness of assessments, and research effectiveness or analyzing the validity of product content.

## Instructional Design Experts as Evaluators

Two IDEs served as evaluators of the digital product. Both IDEs have advanced degrees and have occupations as Instructional Designers within the County of Los Angeles. One of the IDEs received their advanced degree from California State University, Fullerton and is an Alumnus from the Master of Science in Instructional Design and Technology (MSIDT) program. These IDE characteristics are important for evaluating the e-Learning course and website because they have experience building instructional design products and analyzing usability of the digital designs.

# **Target Audience**

An online financial literacy course targeting adolescents (ages 12 to 17) was created to enhance their knowledge before making uneducated financial decisions as young adults. Primarily my target audience is adolescents; however, both adolescents and adults will benefit from the online financial literacy course.

## **Instrument**

The digital product includes a website, <u>www.twealth.org</u>, and the Online Financial Literacy Course for Adolescents – which is a series of instructional courses and

modules to help build financial literacy for adolescents. Therefore, two assessment tools were adapted to evaluate the website – *Web Design Best Practices Checklist* (Morris, 2016), which is titled *Website Evaluation* and the quality of the e-Learning financial literacy course modules – *A Checklist to Assess the Quality of an e-learning course* (Connect Thinking, 2013), which is titled e-Learning Course Evaluation, see Appendix E and F. The researcher made additions to both assessment tools by adding four demographic questions. Both assessment tools ask participants for their occupation, highest degree completed, degree major, and age group.

## **Data Collection**

Upon receipt and acceptance of role as SME or IDE, the participants evaluated and completed both evaluation forms: the *e-Learning Course Evaluation* and the *Website Evaluation*. Participants sent their completed forms to the researcher via email by attaching a scanned copy or electronic copy of both evaluation tools.

## **Data Analysis**

The *e-Learning Course Evaluation* and the *Website Evaluation* contains both quantitative and qualitative evaluative items. For the modified *e-Learning Course Evaluation*, a 3-point likert scale was used to assess navigational functions (5 items), visual design (6 items), the instructional design approach (5 items), interactivity (6 items), the use of narration and text (11 items), and assessment (4 items), along with a series of open-ended questions (4 items). There is a total of forty-one items in the *e-Learning Course Evaluation*. Similarly, the *Website Evaluation* includes a 3-point likert scale assessing page layout (11 items), navigational functions (7 items), colors and graphics (9 items), content presentation (15 items), and accessibility (10 items), as well as

a free response comment section. There is a total of fifty-three items in the *Website Evaluation*.

## **Procedure**

# Successive Approximation Model 2 (SAM 2)

As previously mentioned, the researcher designed the digital prototype by following the Successive Approximation Model 2 (SAM 2) model (Allen & Sites, 2012). The researcher used SAM 2 for the development of the digital product because this model of development is ideal for large and complex projects. The SAM 2 model is divided into three phases of development: The preparation phase, the iterative design phase, and the iterative development phase (Allen & Sites, 2012). See figure 3-1.

**EVALUATE IMPLEMENT** BACKGROUND **PROTOTYPE** DEVELOP DESIGN **EVALUATE** Savvy Information Additional Project Design Proof Aloha Beta Gold Gathering / Planning Design Preparation **Iterative Design Iterative Development** Phase Phase Phase

Figure 3-1 Overview of SAM 2

Source. Adopted from Allen & Sites, 2012, p.40

## The Preparation Phase

The preparation phase of the SAM 2 model does exactly what the name implies, prepare or prep. This phase is made up of two elements: information gathering and a savvy start. "The preparation phase is the period for gathering background information before attempting to design the first solution" (Allen & Sites, 2012, p.40). Therefore, the

information gathering portion for this digital product was the collection and review of available financial literacy curriculum and lesson plans, research articles, and website searches. The other element of the preparation phase is the savvy start. A savvy is when "further information is discovered by design and review of a rapidly constructed, disposable prototype" (Allen & Sites, 2012, p.42). The researcher developed a rapidly (less that one full semester's time) constructed prototype called *The Building Blocks of Financial Literacy: A Learning Series* (See Appendix L for prototype illustrations). With this prototype, researcher was able to test ideas of curriculum design and evaluate how to address the development of the final product. Upon completion of the preparation phase the researcher moved into the iterative design phase.

# The Iterative Design Phase

The iterative design phase is also made up of two elements: project planning and additional design. Project planning is the "assessment of remaining project development details affecting timeline and budget" (Allen & Sites, 2012, p.43). For this digital product, the researcher created a planning document to assist in the planning of this product. Similar to this chapter, the planning document outlines the product's topic, needs assessment, characteristics of the target audience, goals, learning objects, prerequisites and course specifications, design, and evaluation criteria and tools. A flowchart is incorporated in the planning document to illustrate the flow or sitemap of the *Online Financial Literacy Course for Adolescents*, along with an illustration of the website's home page, and the home screen and main menu for the first topic lesson of the instructional design (see Appendices G, H, and I). Additional design involves the enhancement of a prototype. In this instance, the researcher revamped and created

enhancements to the design of the prototype created in the preparation phase. Iterations in both the design and development phases allow for the developer to evaluate the prototype or product and make corrections in the development and implementation of a product (Allen & Sites, 2012). Depending on how larger or complex a project is, a designer or developer can go through several cycles or iterations of evaluations, development, and implementations for both the design and development phases.

## The Iterative Development Phase

Unlike the other phases the iterative development phase is made up of four elements: (a) Design proof - draft of digital product or first production cycle; (b) alpha - the full development and evaluation of a digital product or second production cycle; (c) beta — modified or corrected version of alpha essentially having no functional errors; and (d) gold- the final phase of development in which all errors found in beta are rectified, no more development is needed, which marks the initiation of the beginning of the rollout or implementation of the product. Upon the evaluation and review of the digital product by the SMEs and IDEs, the researcher corrected the necessary errors to prepared for the rollout of the final digital product.

#### **Summary**

This chapter provided intel on the planning of the research product along with feedback from Subject Matter Experts (SME) and Instructional Design Experts (IDE). In the case of this project, the SMEs are professionals that work in financial planning/management or have advanced degrees. Chapter Four illustrates the development and description of the online financial literacy course. Finally, Chapter Five discusses the findings of the analyzed feedback of the SMEs, the strengths and

weaknesses of the project, and recommendations for further research for financial literacy education for adolescents.

#### **CHAPTER FOUR**

## DESCRIPTION OF INSTRUCTIONAL PRODUCT

# **Online Financial Literacy Course for Adolescents**

In this section, the researcher will discuss the planning and development process, online with a detailed description of the financial literacy digital project. This digital project, *Online Financial Literacy Course for Adolescents* is a learning series for financial literacy, covering topics such as making financial decisions, making money, budgeting, banking, credit, borrowing money, saving and investing.

### Goals

In terms of primary and secondary public education, many of the tangible courses that prepared youth for adulthood (i.e., home-economics and driver's education) have been terminated. The most practical subjects for adult preparation that are required in school is reading, writing, and math literacy. Financial literacy education needs to be spread among the youth, especially the underprivileged so that they could make better financial decisions as adults. The overarching goal of *Online Financial Literacy Course for Adolescents* is to deliver an online financial literacy course to adolescents to enhance their knowledge of economics before making uneducated financial decisions.

#### Needs Assessment

Many people may be financially savvy, however, an overwhelming majority is financially illiterate (Lusardi, 2015). Time has changed for post-retirement financial security from the employer. Currently, career with pensions are limited; declining social security assistance; lack of investment knowledge; lack of savings; and massive accruing of debt. There are alarming statistics that support the need for a nationwide movement for

financial literacy education. First, "The national personal savings rate – as a percentage of disposable personal income – has been declining since the 1980s and dipped below zero in 2005 for the first time since 1933 - It remains below zero" (Anonymous, 2008, p. 2A). Second, the savings accumulated for almost half of workers saving for retirement as is less than the \$25,000 (Anonymous, 2008). Third, on average, the United States court see roughly 2,000 filings for bankruptcy, which is about one million filings per year (Anonymous, 2008). The goal of this instructional product is to fill the gaps of financial illiteracy to help others become more financially literate. Lusardi and Mitchell (2014) discuss that retirement planning has shifted from employer-sponsored pension plans and social security to individualized financial planning (i.e., savings, investing, and borrowing). The problem is that many households are undereducated and lack financial literacy, and society relies heavily on parents to teach and passed down financial knowledge to their children.

How can financial education be shared with children whose parents do not have the financial capital wealth of knowledge? The first advised solution is to add financial literacy education into the curriculum of schools of children and adolescents before they reach the age of handling money on a large scale and making major financial decisions (Lusardi, 2015; Solomon, 2018). There is no national standard curriculum for financial literacy in middle and secondary schools. Therefore, creating an online financial education course opens access to all students. Second advised solution is to meet the need for library-based financial literacy education resources since public libraries are limited in their resources for financial literacy accessibility for the public (Keller et al., 2015). In the online financial literacy course, there are resources (i.e., articles, tips,

practice financial simulations, etc.) available in addition to financial literacy instruction for users to maximize their growth in finance.

Finally, the design financial literacy education is intended for the most vulnerable demographics. According to research, the most vulnerable groups are the youth, the elderly, African Americans, and females (Anonymous, 2008; Lusardi, 2015; Lusardi, 2019; Lusardi & Mitchell, 2014). Since we are now in the era of technology and accessibility, the strategy to provide financial literacy education to the vulnerable population is publicizing the online course through ads, sharing by social media, and using search engine optimization (SEO). As for the development of the *Online Financial Literacy Course for Adolescents*, the courses was designed to offer suppoort and not intimidate the users. Even if that means simplifying the communication of financial literacy terminology to the understanding of the common individual.

# **Learning Task Analysis**

The *Online Financial Literacy Course* includes multiple levels of interactive features including navigation buttons, audio, drag and drop simulations, and knowledge checks to assess the learner's understanding of learning objectives.

# Learning Objectives

The web-based financial literacy course for adolescents will help remedy the lack of financial education amongst our youth. This course provides a break down budgeting and money management tips to increase financial literacy. This instructional product addresses and teaches learners the basic keys to financial success. Upon the success of each core financial principles, learners will be able to:

- Distinguish between wants and needs when making spending decisions.
- Identify the intricacies of generating income.

- Create and maintain a budget.
- Perform tasks associated with a bank.
- Differentiate the pros and cons of borrowing money.
- Identify the benefits of saving.

# **Prerequisites**

There are several prerequisites for end users associated with this project. The target audience must have the basic computer and online navigational skills.

Additionally, for end users to access this online digital product, their computer system must meet the minimum technical computing needs. The user's operating system for PCs should be Windows 2000 or higher, or Macintosh OS X 10.6 or higher. The processor should be 2.5 (+) GHz with and a 17-inch monitor with a resolution capability of 1024 x 768 or larger. Users should have a dependable internet connection, and the latest versions of the following plug-ins: Adobe PDF reader, Real Player, QuickTime, Flash Player.

When accessing the internet one of the following browsers will be necessary: a) Firefox 22 or higher (PC); b) Internet Explorer 9.0 or higher (PC); Google Chrome; and d) for Mac is Safari (Java and JavaScript must be enabled).

## Navigational Controls

The Online Financial Literacy Course is housed on the www.twealth.org website. This website was built on WordPress.com. Appendix G has a flowchart that also serves as a site map for the website. In the site's main navigational menu, users can navigate to the About Twealth page, the Contact Us page, the Financial Literacy Course home page, and have the ability to login or register as a user on this site. As seen in Appendix H, the website's homepage provides a list of short descriptions of learning goals for each for course topic. There is a total of nine course topics, however, only the course called

Managing Money or Money Management (terms used interchangeably) is link to the Managing Money tab on the Financial literacy course page.

Appendix I shows the financial literacy course home page along with the title screen for the *Money Management* course. Additionally, Appendix J displays the main menu screen for the first topic lesson of the instructional design - Money Management. The instructional prototype was created using *Articulate Storyline* (2018). The *Money Management* course is divided into four sub-topics and an overall assessment of those sub-topics. Each of the nine tabs navigate is its express course topic: Managing Money, Making Money, Budgeting, Banking & Financial Services Saving and Investing, Borrowing, Major Purchases, Insurance, and Financial Trouble. As previously mentioned, the *Managing Money* course is the that was fully developed, thus serving as the instructional prototype. All other tabs show the title page of the course topic on long with a man holding an "Under Construction" sign (see Appendix K).

The frame or skin of the financial literacy course design houses the navigational controls of the e-Learning course. The frames include a *NEXT* button located on the lower right corner of the frame and a *PREV* button positioned to the left of the *NEXT* button located on the lower right corner of the frame. the rest of the frames contain a *Continue* or *Submit* button. Each frame that contains audio narration, the frame provides an icon that allows users to control the volume. Users can mute audio from the toolbar.

#### Audio

Due to the lack of sophisticated voice audio software and lack of time, audio was only used in the first two slides of each sub-topic in the *Money Management* course topic. The sub-topics in *Money Management* are *Money Habits, Goals, Making Decisions,* and

Spending & Cash Flow. The designer used the Text-to-Speech function narrated by Joanna in Articulate Storyline (2018) to provide audio narration of the learning goals (Slide 1) and learning objectives (Slide 2) of each sub-topic.

# Drag-and-Drop Simulations

To assess the knowledge and understanding of the learning material, the instructional designer embedded drag-and-drop simulations within the learning modules. In the *Money Habits* module, learners were assigned to complete two types of drag-and-drop simulations. In one of the simulations, learners were tasked with dragging each money habit statement and dropping the statement in the area of the corresponding positive or negative spending habit box. In the other simulation, learners were tasked with dragging each image and dropping the image in the area of the corresponding *Want* or *Need* shopping care category. These drag-and drop simulation was not a graded quiz, however, it functioned as a method of formative assessment or knowledge check. In the overall course *Assessment*, learners were tasked with dragging each term and dropping the tern in the area of its corresponding definition box. This particular drag-and-drop simulation is graded and tested learner on their ability to identify and recall foundational terms in financial literacy education.

#### Assessments

In addition to the drag-and drop simulation, the designer incorporated eight multiple choice questions which tests the learners understanding of all the modules in the *Money Management* course. Each question is worth 10 points and learner are allotted two attempts for each question. As for the drag-and drop, each term that is correctly paired with its corresponding definition is worth five points. Altogether, the assessment in worth

105 points. In order to pass the course, learners must earn at least eighty-four points (80%), by providing the correct response.

# **Instructional Strategies**

Throughout the *Online Financial Literacy Course*, the designer incorporated several drag-and-drop simulations as previously discussed. The instructional strategy that corresponds with the Drag-and-Drop tasks is a strategy called *Concept Attainment* (Silver, Morris, and Klein, 2010) Concept Attainment is when a learner develops the ability to understand concepts through attributes of the new topic. Critical attributes help students examine and identify examples and non-examples of a given concept. In the learning module knowledge checks, learners would pair terms, statements, or images with its corresponding category or example. In the case of distinguishing between *Wants* and *Needs*, learners would be able to assess their concept attainment by when or not they dropped the item (image) into the right category.

Learners are given full control of their learning throughout the *Online Financial Literacy Course*. "Learner control is implemented by navigational features such as forward/back/replay buttons, slider bars, menus, site maps, and links that allow learners to select the topics and instructional elements they prefer as well as manage their pace through a lesson" (Clark and Mayer, 2016, p. 335). Upon the start of the *Money Management* training, users are given the option to choose any subtopic to start the course. Also, the course skin allows user to navigate backwards (using PREV button) and forward (using NEXT button) throughout the course. Additionally, learners have the ability to exit the course with their learning progress automatically saved if the learner registers for login credentials.

## **Summary**

This research is divided into five chapters. The first chapter presents an overview of the research and its associated product. Chapter Two provides a review of the literature that discusses motivation and behaviorism and its relation to financial literacy and impulsivity. Additionally, the researcher explores effective ways to provide formative and summative feedback to adolescents in an online financial course. Chapter Three provides intel on the planning of the research product along with feedback from Subject Matter Experts (SME). In the case of this project, the SMEs are Instructional Designers and professionals that work in financial planning/management. Chapter Four illustrates the development and description of the online financial literacy course. Chapter Five discusses the findings of the analyzed feedback of the SMEs and recommendations for further research for financial literacy education for adolescents. Furthermore, the Appendix includes the IRB waiver letter, a recruitment email template, website evaluation, e-learning course evaluation, screenshots of the website and online course, production analysis and a detailed budget for this project. Additionally, a visualized PDF version of the entire *Money Management* course is included in Appendix R.

#### **CHAPTER FIVE**

# FINDINGS, RECOMMENDATIONS, AND CONCLUSIONS

As previously discussed, the researcher covered topics introducing an overview of the research and the online financial literacy course (Chapter One). A review of the literature was included in Chapter Two that discussed motivation and behaviorism, its relation to financial literacy and impulsivity, and explored effective ways to provide formative and summative feedback to adolescents in an online financial course. In Chapter Three the researcher provided intel on the planning of the research product along with feedback from SMEs and IDEs. Chapter Four illustrated the development and description of the online financial literacy course. In this chapter, the researcher discusses the findings of the analyzed feedback of the SMEs and IDEs, the strengths and weaknesses of the project, and recommendations for further research for financial literacy education for adolescents.

## **Findings**

As previously noted, Chapter Three discussed the characteristics of the SMEs and IDEs who evaluated the *Online Financial Literacy Course*. These experts evaluated the overall website design of Twealth.org as well as the *Money Management* e-learning course.

#### Website Evaluation

A majority of the evaluators scored the *Website Evaluation* similarly, which assessed *Page Layout* (11 items), *Navigational Functions* (7 items), *Colors and Graphics* (9 items), *Content Presentation* (15 items), and *Accessibility* (10 items). Instead of choosing "yes" or "no" on the Likert scale, one IDE checked off "Sometime / Not Sure".

In the open-ended *Comments* section, many of the evaluators used this section to recommend elements of personal preference such as changing the length of information provided. Others used this section to recommend elements to improve the website.

Overall, the evaluators stated that the website is clean, concise, and easy to navigate (see Appendix P for responses).

# e-Learning Course Evaluation

For this evaluation, only three of the evaluator's assessments are included in the findings because one SME provided an incomplete evaluation. Similar to the website evaluation, the e-Learning Course Evaluation, included a 3-point Likert scale that was used to assess Navigational Functions (5 items), Visual Design (6 items), the instructional design approach (5 items), interactivity (6 items), The Use Of Narration And Text (11 items), and Assessment (4 items). Majority of the Likert scaled items were similarly scored by both SMEs and IDEs. However, instead of choosing "yes" or "no" on the Likert scale, one IDE checked off "Sometime / Not Sure". However, in this evaluation, there were four open ended response items. The first item inquired about the financial literacy content concurrent with today's standards. All evaluators agree that content was relevant with today's standards. The second item asks if there any topic missing that should be added. All evaluators replied no to this item. The third item inquired if there any topics the are incorporated in the course that should be deleted. All evaluators responded with "no". The fourth item allows for evaluators to input their suggestions, feedback, or tips. Responses are listed in Appendix Q.

## **Research Question Findings**

The following research questions were explored in Chapters One and Two of this research paper. Chapter Two reviewed the literature to help the researcher formulate conclusions to answer these research question as it related to my project. As a reminder, the five research questions below included:

- 1. What factors influence adolescents to be unmotivated about financial literacy education?
- 2. Which mastery and understanding learning strategies can be used to enhance learning in an online financial literacy course?
- 3. How are motivation and behaviorism related to financial literacy and impulsivity?
- 4. How does impulsivity impact spending decisions?
- 5. What are effective ways to provide formative and summative feedback to adolescents in an online financial course?

# What Factors Influence Adolescents to be Unmotivated About Financial Literacy Education?

Several factors influence adolescents to be unmotivated by financial literacy education. Research points to phenomena such as cognitive overload or too much information that effects the learner's ability to process information, high tasks load and lack of resources or tools to complete tasks, and a heightened level of difficulty to complete the tasks. All these factors are correct. Learner's may experience cognitive overload when learning about successful financial practices, especially since many people - racial and gender (female) minorities - lack parental and educational guidance in learning how to manage their finances for their present and their future. Additionally, the

application of finance management is lifelong, and many youths do not see the benefits of saving for retirement if there is no short-term reward of good financial management behavior.

# Which Mastery and Understanding Learning Strategies can be Used to Enhance Learning in an Online Financial Literacy Course?

In the review of the literature, there is a consensus among researchers that Universal Design for Learning (UDL) incorporates elements of mastery and understanding, which are learning strategies that may be used to enhance learning in an online financial literacy course. Universal Design for Learning combines the three principles – Presentation, Action, and Expression and Engagement – to serve as the foundation of the tens steps to create an online course or curriculum development. Most research-based studies show statistical significance proving that the incorporation of UDL will promote student engagement. Overall, the purpose of applying UDL in instruction is to create a learning environment for all learners that promotes adaptability for all student regardless of their abilities or disabilities. Since the target audience for the online financial literacy course are adolescents, the course design cannot be based on standardized capabilities, instead, it would have to incorporate an all-inclusive approach to design. Therefore, the bigger picture in online course design is inclusivity and when properly integrated in an online arena, will enhance learner mastery and understanding in this Online Financial Literacy Course.

# **How Does Impulsivity Impact Spending Decisions?**

Researchers predicted that negative spending decisions are positively related to impulsivity, and people who are financially ignorant will impulsively make more negative spending decisions than those who are financially literate. The evidence of the correctly predicted results suggests that in teaching financial literacy, the learner should be equipped with self control skills, and decision-making skills under pressure. In essence, knowledge based financial literacy is not the only factor necessary to help one make good financial decisions, but behaviorism must be applied as well. This means that beyond knowledge, one must modify their spending behavior especially when impulsivity is involved. Consumer marketers and advertisers create ads to prey on impulsive buyers. If these buyers attend a financial literacy course that incorporates behaviorism to modify impulsive behavior, they would more likely make better spending decisions than those who are financially literate without the behavior modification.

# How are Motivation and Behaviorism Related to Financial Literacy and Impulsivity?

As previously illustrated, in order to integrate motivation and behaviorism, behaviorism must allow for internal cognitive processing. This is done through a modified version of behaviorism called neobehaviorism. In neobehaviorsm, an intrinsic organismic (O) variable is introduced to mediate the stimulus (S) and response (R) (Moore, 2011). This means that stimulus-response is no longer a reflex or habit, but it now incorporates internal cognition. In this case, the mediating organismic variable is motivation, and the process is reflected as stimulus (S) – motivation (O) – response (R).

Overall, in order to create an effective financial literacy course, the goal would be to find the appropriate extrinsic motivational factor, consequence, and/or reinforcement that will translate to a more intrinsically motivated orientation that results in internalization. It has been stated that the learner must find any subject matter to be relevant and/or important in order for the learner to be motivated and engaged in any learning task (Mandell & Klein, 2007). Therefore, providing learners with immediate and long-term benefits of saving money for retirement or goals and making positive spending decisions could be the extrinsic factor that promotes internalization. Recommendations of ways to induce internalization in a financial literacy course is by introducing the subject matter with successful and unsuccessful testimonies from retired individuals, as well as providing tools and ways to successfully retire. In sum, the overall mission in the development of a financial literacy course is not just to increase one's financial knowledge and understanding, moreover, the mission is to extrinsically prompt students to become intrinsically motivated to care about financial literacy and retirement.

# What are Effective Ways to Provide Formative and Summative Feedback to Adolescents in an Online Financial Course?

There are two forms of assessment, summative and formative. As a reminder, summative assessment is a learning measurement tool that measures student learning after a period of instruction. Formative assessment is a form of assessment that can be given during any period of instruction. The primary role of formative assessment is for instructions to provide feedback to students to enrich the student learning process. When creating high quality assessments, incorporating the following criteria are important: *Reliability*, which is the reproducibility of the assessment. *Validity* or the ability of the

assessment to measure what it is suppose to measure. Feasibility or cost effectiveness which is related to how realistic the test is compared to the context of instruction.

Additionally, the best practice in curriculum design is to design backwards. Focus on defining learning outcomes with proper or more suitable assessments that can properly measure the learning outcomes. Summative assessments are rudimentary to instruction. However, frequent formative data assessment will advance instruction and enhance student learning and understanding to a mastery level. Formative assessment promotes learning achievement compared to summative assessment based on direct instruction.

Since formative feedback has been founded to promote learner engagement, increase levels of achievement, and enhance student's motivation to learn. Examples of formative assessment for online learning are online journaling reflection papers, role-playing, hook questions wall, and checking in with students through discussion forums.

## **Conclusions**

Based on the information presented in the previous sections, the researcher plans to improve the online instructional product or *Online Financial Literacy Course* by integrating appropriate motivational factors in the instructional design, that will translate external motivation to a more intrinsically motivated orientation of the learner. Therefore, the researcher will provide learners with multimedia styled lessons, prompt feedback, incorporate frequent assignment reminders via email, and a create a social orientation online learning (i.e. discussion forums and a blog section for peer feedback). These extrinsic factors are very likely to promote and maintain learner motivation through this online course. Additionally, the researcher will continue to apply UDL principles in her online product to create a learning environment for all learners. This promotes

adaptability and learning ability for all students, regardless of their abilities or disabilities. Finally, the researcher will continue to embed formative assessments for learners in the form of knowledge checks and feedback. Not only will the researcher be able to gauge the learner's understanding for the online lessons, but learner's themselves can gauge their learning. Similarly, with summative assessment, all learner's will be able to take a cumulative multiple-choice online assessment for each topic of financial literacy. These assessments incorporate items that measure learner's understanding and mastery of the course's learning objectives and goals.

#### Recommendations

As a reflection of the SMEs' and IDEs' feedback from the Website Evaluation and e-Learning Course Evaluation Forms, their recommendations were minimal. Besides correcting grammatical errors, the evaluators recommended that the researcher use examples that are related to youth experiences, such as dating. Another recommendation is that the researcher finish creating instructional design for the other course topics. Most of these recommendations are feasible and attainable and can be corrected in a short amount of time. However, the remaining course topics (Making Money, Budgeting, Banking & Financial Services, Saving & Investing, Borrowing, Major Purchases, Insurance, and Financial Trouble) are in the early stages of development and could take at least one year to roll out the finalized course topic to complete the Online Financial Literacy Course. Moving forward, the researcher's plan is it to complete the entire online course and make the course accessible to all mobile devices via Google Play Store and iPhone App Store. Successful completion of the Online Financial Literacy Course for

*Adolescents* and its responsive nature to most (or all) devices, the researcher will serve as a small force contributing to financial education awareness movement.

# **Summary**

This research is divided into five chapters. The first chapter presents an overview of the research and its associated product. Chapter Two provides a review of the literature that discusses motivation and behaviorism and its relation to financial literacy and impulsivity. Additionally, the researcher explores effective ways to provide formative and summative feedback to adolescents in an online financial course. Chapter Three provides intel on the planning of the research product along with feedback from Subject Matter Experts (SME). In the case of this project, the SMEs are Instructional Designers and professionals that work in financial planning/management. Chapter Four illustrates the development and description of the online financial literacy course. Chapter Five discusses the findings of the analyzed feedback of the SMEs and recommendations for further research for financial literacy education for adolescents. Furthermore, the Appendix includes the IRB waiver letter, a recruitment email template, website evaluation, e-learning course evaluation, screenshots of the website and online course, production analysis and a detailed budget for this project. Additionally, a visualized PDF version of the entire *Money Management* course is included in Appendix R.

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# Appendices

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Appendix A

Framework for Adapting Motivation Design to the Morrison, Ross, and Kemp Model

ARCS Phase	Instructional Design	Motivational Design	Interpretations
	Process	Steps	
Define	Instruction problem analysis		Analyze learner's prior knowledge and needs.
	Learner and	Motivational	Define general level of learner
	contextual analysis	audience analysis	motivation, learner characteristics, and environmental factors.
	Task analysis		Identify the content required to solve the instructional problems.
	Instructional	Prepare motivational	Generate motivational as well as
	objectives	objectives and	instructional objectives and prepare
		criterion measures	methods for assessing the objective.
Design	Sequencing		Sequence the instructional content to
			help learner achieve the objectives.
	Instructional	Create potential	Create potential strategies for each
	strategies	motivational	motivational objective and
		strategies	instructional objective.
		Select strategies	Select appropriate strategies.
		Integrate strategies	Incorporate the strategies into the
			instructional content.
Develop	Message design	Create motivational	Develop materials that effectively
		instruction and	integrate the motivational and
		improve existing	instructional strategies. Enhance
		instruction	existing instructional product.
		Developmental test	. Conduct developmental tests
			(formative evaluation).
Pilot	Development of	Implement with	Implement the instruction to
	instruction	target population	representatives of the target
		representatives	population.
	Evaluation	Evaluate motivational	. Administer formative evaluation to
		outcomes	measure the adequacy of instruction and motivational effects of the
			instructional materials.
		. Revise instruction	Revise the instructional product.

Source. Adapted from Cheng and Yeh, 2009, p. 602.

#### Appendix B

#### Modified UPPS Impulsive Behavior Scale (M-UPPS)

Below are a number of statements that describe ways in which people act and think. For each statement, please indicate how much you agree or disagree with the statement by selecting one of the following:1- Strongly Agree; 2- Agree; 3- Disagree; 4 Strongly Disagree.

- 1. I have a reserved and cautious attitude toward life.
- 2. I have trouble controlling my impulses.
- 3. My thinking is usually careful and purposeful.
- 4. I have trouble resisting my cravings (for food, cigarettes, etc.).
- 5. I am not one of those people who blurt out things without thinking.
- 6. I often get involved in things I later wish I could get out of.
- 7. I like to stop and think things over before I do them.
- 8. When I feel bad, I will often do things I later regret to make myself feel better now.
- 9. I don't like to start a project until I know exactly how to proceed.
- 10. Sometimes when I feel bad, I can't seem to stop what I am doing even though it is making me feel worse.
- 11. I tend to value and follow a rational, "sensible" approach to things.
- 12. When I am upset I often act without thinking.
- 13. I usually make up my mind through careful reasoning.
- 14. When I feel rejected, I will often say things that I later regret.
- 15. am a cautious person.
- 16. It is hard for me to resist acting on my feelings.
- 17. Before I get into a new situation I like to find out what to expect from it.
- 18. I often make matters worse because I act without thinking when I am upset.
- 19. I usually think carefully before doing anything.
- 20. Before making up my mind, I consider all the advantages and disadvantages.
- 21. In the heat of an argument, I will often say things that I later regret.
- 22. I always keep my feelings under control.
- 23. Sometimes I do impulsive things that I later regret.

Scoring Instructions: This version of the UPPS Impulsive Behavior scale uses a 1 (agree strongly) to 4 (disagree strongly) response format. Because the items from different scales run in different directions, it is important to make sure that the correct items are reverse-scored. I prefer to make it so that all of the scales run in the direction that higher scores indicate more impulsive behavior. Therefore, I am including the scoring key for (lack of) Premeditation and Urgency.

```
(lack of) Premeditation (no items are reversed) items 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 20. Urgency (all items except 1 are reversed) items 2 (R), 4 (R), 6(R), 8 (R), 10 (R), 12 (R), 14 (R), 16 (R), 18 (R), 21 (R), 22, 23 (R)
```

#### **Appendix C**

#### Institutional Review Board (IRB) Waiver Letter

From: LaTarah Hall Date: 6/5/2019

To: MSIDT Faculty

California State University, Fullerton

MSIDT Faculty

The purpose of this letter is to request that my project titled, Online Financial Literacy for Adolescents be given exempt status from review by the CSUF institutional review board (IRB). I am submitting this letter so as to expedite the IRB process.

As a student in the Master of Science in Instructional Design and Technology Program at CSUF, I am required to submit a digital learning product that demonstrates the knowledge and skills that I have acquired in the program. The MSIDT program focuses on the application of technology for teaching, learning and curriculum development used by professionals. A requirement for completion of the program is the development and evaluation of a digital learning product that can be used to meet an instructional need.

Along with this letter, I am submitting an abstract that describes my digital learning product in detail. Once this digital learning product has been developed, I will need to conduct an evaluation that will evaluate the digital learning product's effectiveness with a group of Subject Matter Experts and Instructional Design Experts. This evaluation will also provide me with information that will help me improve the instructional product. The evaluation is mixed methods (qualitative and quantitative data) with convenience sampling of a small number of Subject Matter Experts and Instructional Design Experts. The results of the evaluation will only appear in my master's project.

If you have any questions or concerns, please do not hesitate to contact me at the following address:

9120 Cedar St.,

Bellflower, Ca 90706

(562) 616-2238, Lhall270@csu.fullerton.edu, Cohort 17

I appreciate your help with this matter, as this will facilitate the completion of my final digital learning product for the MSIDT program.

Sincerely,

La Tarah Hall

#### Appendix D

#### Institutional Review Board (IRB) Acceptance Letter



Master of Science Instructional Design & Technology College of Education 2600 Nutwood Avenue Fullerton, CA 92831 657-278-3786

June 1, 2019

LaTarah Hall,

Your IRB proposal letter has been received and reviewed. Your Master of Science in Instructional Design and Technology project qualifies for an IRB waiver. Your digital project is not designed to develop or contribute to generalizable knowledge as described in CFR 46.102(d). The primary focus of your project is based on the production and evaluation of a digital instructional product which does not involve human participants, a formal IRB review is not required and you may commence the development and evaluation of your digital instructional product.

Dr. Cynthia Gautreau, Director

MS Instructional Design and Technology

College of Education

California State University Fullerton

THE CALIFORNIA STATE UNIVERSITY

#### Appendix E

#### Recruitment Email Template

Hello (Prospect's Name),

My name is LaTarah Hall, a current Master's in Instructional Design and Technology student at CSU Fullerton. I am in need of a Subject Mater Expert (SME) or Instructional Design Expert (IDE) to review my Instructional Project.

Would you be willing to help me with this portion of my final project? If so, keep reading and follow the instructions below:

You will be reviewing my website (Twealth.org) and instructional design (Money Management) prototype to educate youth on foundational financial principles. The link is below:

#### www.twealth.org

Attached are:

- The eLearning Course Evaluation
- The Website Evaluation
- Chapters 1 & 2 of my thesis (if you would like to gain some insight about my project)

Feel free to forward this email to anyone else that is willing to help review my project. They must meet at least one of the following criterion:

- An instructor / teacher
- An Instructional designer
- A website designer
- Works in a financial / economical profession

Could you please assess the website and the Financial Literacy Course (housed within the website) **ASAP**? My hard deadline is **June 14, 2019**. I will need to write up my assessment chapter really soon. My final semester ends the first week of August 2019, therefore, I do not have a full semester to complete my thesis.

I greatly appreciate you helping me complete my graduate degree. Also, here is my e-portfolio website (<a href="www.myparadocs.com">www.myparadocs.com</a>), you will be able to see my samples of my work and download my resume. Please share, I am looking for new and relevant employment.

Thank you.

Go Titans!!

# Appendix F

## Website Evaluation

Occupation:							
Highest Degree Completed (Circle One):							
High School	Associates	Bachel	lor's	Master's	Doctorate's		
Major:							
Age Group (Ci	rcle One):	18 - 25	26 - 35	36 - 45	5 46 - 55	65 +	

#	Page Layout	Yes	Sometimes / Not Sure	No
1	Appealing to target audience			
2	Consistent site header/logo			
3	Consistent navigation area			
4	Informative page title that includes the company/organization/site name			
5	Page footer area includes copyright, last update, contact e-mail address			
6	Good use of basic design principles: repetition, contrast, proximity, and alignment			
7	Displays without horizontal scrolling at 1024×768 and higher resolutions			
8	Balance of text/graphics/white space on page			
9	Good contrast between text and background			
10	Header and nav occupy less than ¼ to ⅓ of the browser at 1024×768 resolution			
11	Home page downloads within ten seconds on dial-up connection			
#	Navigation	Yes	Sometimes     Not Sure	No
1	Main navigation links are clearly and consistently labeled			
2	Navigation is easy to use for target audience			
3	If main navigation uses images, clear text links are in the footer section of the page			
4	If main navigation uses Flash, clear text links are in the footer section of the page			
5	Navigation is structured in an unordered list			

6	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used			
7	All navigation hyperlinks "work" — are not broken			
#	Color and Graphics	Yes	Sometimes / Not Sure	No
1	Color scheme is limited to a maximum of three or four colors plus neutrals			
2	Color is used consistently			
3	Text color has sufficient contrast with background color			
4	Color is not used alone to convey meaning			
5	Use of color and graphics enhances rather than distracts from the site			
6	Graphics are optimized and do not significantly slow download			
7	Each graphic used serves a clear purpose			
8	Image tags use the alt attribute to configure an alternate text description			
9	Animated images do not distract from the site and do not endlessly repeat			
#	Content Presentation	Yes	Sometimes / Not Sure	No
1	Common fonts such as Arial or Times New Roman are used			
2	No more than one web font is used			
3	Techniques of writing for the Web are used: headings,			
	bullet points, brief paragraphs			
4	bullet points, brief paragraphs  Fonts, font sizes, and font colors are consistently used			
5				
•	Fonts, font sizes, and font colors are consistently used			
5	Fonts, font sizes, and font colors are consistently used  Content provides meaningful, useful information			
5	Fonts, font sizes, and font colors are consistently used  Content provides meaningful, useful information  Content is organized in a consistent manner			
5 6 7	Fonts, font sizes, and font colors are consistently used  Content provides meaningful, useful information  Content is organized in a consistent manner  Information is easy to find (minimal clicks)  Timeliness: The date of the last revision and/or			
5 6 7 8	Fonts, font sizes, and font colors are consistently used  Content provides meaningful, useful information  Content is organized in a consistent manner  Information is easy to find (minimal clicks)  Timeliness: The date of the last revision and/or copyright date is accurate			
5 6 7 8	Fonts, font sizes, and font colors are consistently used  Content provides meaningful, useful information  Content is organized in a consistent manner  Information is easy to find (minimal clicks)  Timeliness: The date of the last revision and/or copyright date is accurate  Content does not include outdated material			

13	Hyperlinks use a consistent set of colors to indicate visited/nonvisited status			
14	If graphics are used to convey meaning, the alternate text equivalent is provided			
15	If media is used to convey meaning, the alternate text equivalent is provided			
#	Accessibility	Yes	Sometimes     Not Sure	No
1	If main navigation uses images, text links are in the footer section of the page			
2	If main navigation uses Flash, text links are in the footer section of the page			
3	Navigation is structured in an unordered list			
4	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used			
5	Color is not used alone to convey meaning			
6	Text color has sufficient contrast with background color			
7	Image elements use the alt attribute to configure an alternate text description			
8	If graphics are used to convey meaning, the alternate text equivalent is provided			
9	If media is used to convey meaning, the alternate text equivalent is provided			
10	Captions are provided for each audio or video file used			
	Comments			
1				

# Appendix G

e-Learning Course Evaluation: Money Management

Occupation:							
Highest Degree Completed (Circle One):							
High School	Associates	Bachel	or's l	Master's	Doctorate's		
Major:							
Age Group (Circ	ele One):	18 - 25	26 - 35	36 - 45	5 46 - 55	65 +	

#	Navigation	Yes	Sometimes / Not Sure	No
	The navigation includes any buttons, tabs or hyperlinks within the e-learning course that the learner uses to move around the course.			
1	The navigation is intuitive, simple to use and uncluttered. Extraneous navigation has been removed.			
2	The navigation is predictable. It is consistent in position, name and function throughout.			
3	There is a navigable menu available to the learner throughout the course, to help learners interpret the structure and themes of the course.			
4	There are no more than two levels of menu (Topic, Subtopic).			
5	The navigation throughout the course includes: Menu/Back/Forward/Replay/Progress/Transcript/Volume/Help/Glossary (if required)/Resources/Exit.			
#	Visual Design	Yes	Sometimes / Not Sure	No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace.  The aim is to ensure each screen is easy and interesting to interpret and learn from.			
1	The visual appeal of the course is maintained throughout.			
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.			
3	The visual design is simple, uncluttered, and clear.			
4	Illustrations are used to support learning and reduce text burden.			
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.			

	Elements of other organizational artifacts relating to the			
	topic (posters, intranet pictures, etc.) are integrated into the visual design to create congruence between the			
6	course and organizational key messages.			
#	Instructional Approach	Yes	Sometimes     Not Sure	No
	Visual design includes the look and feel of the course			
	itself, image type and treatment, and use of whitespace.			
	The aim is to ensure each screen is easy and interesting			
	to interpret and learn from.  The visual appeal of the course is maintained			
1	throughout.			
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.			
3	The visual design is simple, uncluttered, and clear.			
4	Illustrations are used to support learning and reduce text burden			
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.			
#		Yes	Sometimes / Not Sure	No
#	Interactivity Interactivity is used throughout the course to involve			
	and engage the learner in active learning. It calls a learner to action.			
	The interactivity within the course is purposeful. It			
	emphasizes critical content and helps the learner to			
	develop judgment. e.g., scenario decision-making,			
1	problem-solving and workplace action plans.			
2	The interactivity within the course adds interest and dimension			
3	The interactivity emphasizes the value of learning the course content.			
4	The interactivity creates a memorable experience about the content.			
	The e-learning course does not use 'click and reveal' of			
5	text.			
6	There are no functional errors			
		Yes	Sometimes / Not Sure	No
#	Use of Narration / Text	105	/ Not Suit	110
	Narration/text refers to the approach taken to impart the course content to the learner.			
1	The narration/text style helps reduce barriers between the learner and the course.			
2	The narration/text is clear, concise, unambiguous and to the point.			

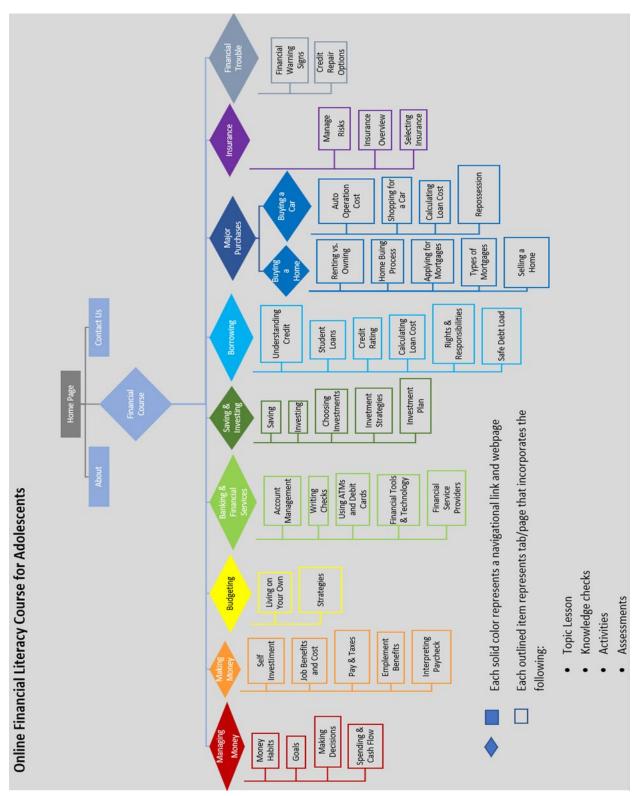
3	Jargon is avoided or described before being used.			
4	Narration is used to supplement copious text on screen, to help learners process difficult content.			
5	Text on screen is not narrated verbatim.			
6	Narration and corresponding animation is presented simultaneously.			
7	Text written on screen is easy to read.			
8	Lots of white space is used to help learners scan text.			
9	Headers and font are consistent throughout.			
10	The font is dark against a white background			
11	There are no spelling mistakes or space inconsistencies			
		Yes	Sometimes     Not Sure	No
#	Assessment	1 05	71100 8410	110
	Assessment is the technique used to check the learner's understanding of the content.			
	A variety of self-assessment types is placed throughout			
	the course to enable the learner to assess personal			
	mastery and gain confidence prior to the formal			
1	assessment.			
1				
2	Formal assessment questions reflect the original			
2	learning objectives.			
3	Assessment questions are scenario-based, where possible.			
	A variety of LMS trackable assessment types are used:			
	• 'True/false' to assess information retrieval			
	• 'Multiple choice with multiple or single response' to			
	assess accuracy of concepts			
4	• 'Place in order' to assess sequence-type knowledge			
4	• 'Drag and drop' for name/action associations			
Comm	nents			

# **Financial Literacy Content Evaluation**

Is the financial literacy content concurrent with today's standards?
Are there any topics missing that should be added?
Are there any topics incorporated in the course that should be deleted?
Do you have any other suggestions, feedback, or tips that you would like to add?

# **Appendix H**

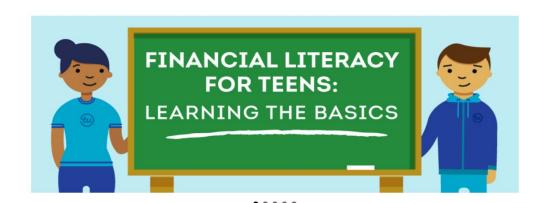
## Flowchart



#### Appendix I

#### Online Financial Literacy for Adolescents: Home Page





#### Welcome to Twealth!

Helping Teens Build Wealth



# **Managing Money**

- Explore how spending, saving and values impact your finances.
- Set financial goals that are specific and measurable
- · Apply strategies to be mindful about spending decisions.
- Create a spending plan to reach your goals.
- · Figure out ways to maintain a positive cash flow



# **Making Money**

- · Explore the payoffs of investing in yourself
- Measure the value of employee benefits.
- Assess factors that impact personal tax liability and take-home pay.
- Start down the path to achieving your lifestyle and financial goals.
- · Prepare to deal with life and work changes.



## **Budgeting**

- Identify and prioritize some of your personal and financial goals.
- Identify the steps you can take and the resources you will need to achieve your goals.
- · Identify and examine your current spending behaviors and patterns.
- · Understand what it means to budget, and identify the reasons to maintain a budget.
- Create and maintain a personal budget that supports your personal and financial goals.



# **Financial Services**

- Use a checking account.
- Select banking tools and technology to handle personal business transactions.
- · Protect your personal account information.
- · Select a financial service provider.



# **Saving & Investing**

- List and explain some of the advantages of saving money.
- Understand the concept of "pay yourself first" and list some ways to encourage this habit.
- · List and explain the differences among the most common saving methods.
- · Understand the advantages and disadvantages of popular investment vehicles.
- Understand what investment fraud is, and list some of the ways you can protect yourself against
  investment swindlers
- Compare and contrast the short- and long-term consequences of investment decisions



# **Borrowing**

- · Weigh the benefits and risks of borrowing.
- · Compare the costs and terms of borrowing options
- · Start the journey to establish a good credit rating.
- · Explore the rights and responsibilities of borrowers and lenders.
- · Protect yourself from identity fraud.



# **Major Purchases**

- · Compare the benefits and drawbacks of renting vs. buying a home.
- Develop a knowledge of the home-buying process
- · Understand and compare various types of mortgages.
- · List some of the costs of owning and operating a car.
- List some of the things you should research and some decisions you should make before you begin to shop for a car.



## **Insurance**

- · Justify reasons to be insured.
- · Investigate how insurance works.
- Choose insurance for specific needs and situations.
- · Demonstrate what to do after an auto accident.

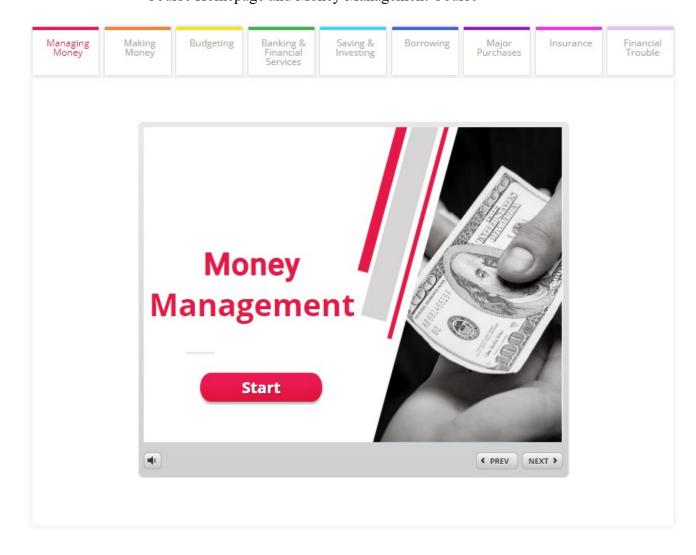


# **Financial Trouble**

- Describe some of the ways you can get in trouble using credit.
- . Explain the first steps to take if you can't pay your bills on time.
- Understand how to evaluate a "credit repair" company before deciding whether or not to use its services.
- · Understand the protections provided by the Fair Debt Collection Practices Act.
- Understand the disadvantages of using bankruptcy as a solution to debt.

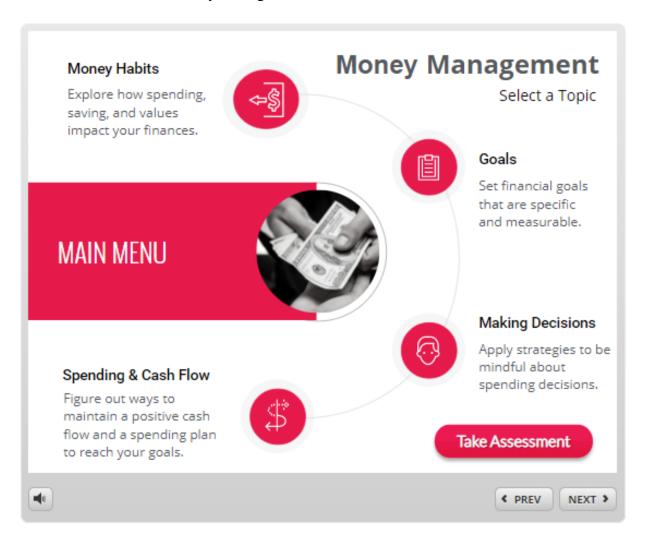
# Course Homepage and Money Management Course

Appendix J



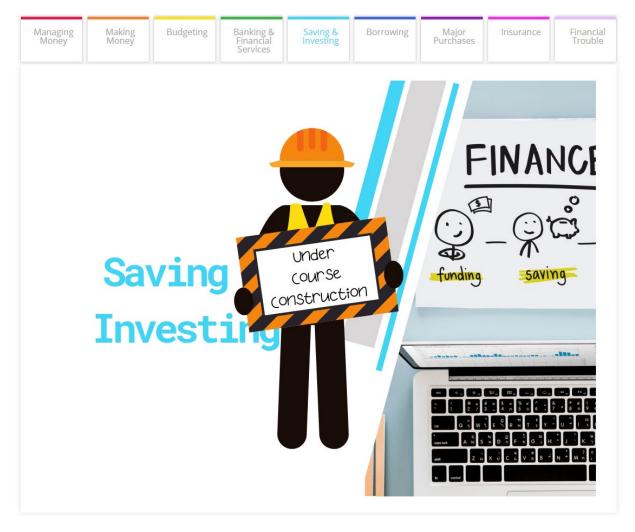
## Appendix K

## Money Management Course Main Menu



Appendix L

## Title Screen of Course Under Construction



## Appendix M

## Synapsis of Preparation Phase Prototype Design

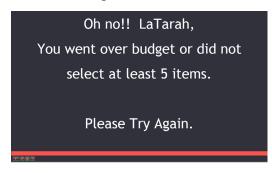
Figure 1 Figure 2



\$150 \$50 \$150 \$150

Figure 3

Figure 4





The title of the learning objects is "The Building Blocks of Financial Literacy: A Learning Series." As a play on words, ten colorful blocks are stacked in a pyramid in order to convey a playful tone of the lesson (Figure 1). Each frame that contained a white background was used to convey a message, whether it was the actual lesson or positive feedback. For the simulations, the items were colorful and reflected things that most people use in their everyday lives (Figure 2). The playfulness in the simulations takes away the focus of the difficultness of understanding finances (Figure 3). Finally, the layout of the quiz is the default of "Suave" theme, its primary colors are red and black (Figure 4). I kept those colors default because I wanted this portion of the learning object to be distinguished from the rest of the learning object and to make it apparent to the user that it is a quiz. Each frame included the audio narration and guidance from a ten-year-old girl. Her voice was intended to bring a lightness and youthfulness to the learning object.

# Appendix N

# Personnel Analysis

TASK	PERSONNEL	<b>Estimated Hours</b>
Ph		
Needs Analysis	Instructional Designer	3
Scope, Goal, And Objectives	Instructional Designer	5
Learner Analysis	Instructional Designer	1
Content Research	Instructional Designer	50
Evaluation Form	Instructional Designer	2
P	hase 2: Design	
Draw Flowchart	Instructional Designer	3
Design Look and Feel	Instructional Designer	10
Create Storyboards	Instructional Designer	20
Establish Style Guide	Instructional Designer	2
Select and Create Designs	Instructional Designer	5
Write Script	Instructional Designer	3
Phas		
Develop Screens	Instructional Designer	6
Create Navigation System	Instructional Designer	6
Develop Interactions	Instructional Designer	20

Appendix O

Production Work Plan / Timeline

TASK	PROJECTED	PROJECTED
	START	COMPLETION
Project Proposal and Preliminary Flowchart	2/4/19	3/5/19
IRB Approval Request	6/5/19	7/16/19
Content Research	12/17/19	2/18/19
Learner Analysis	3/16/18	5/18/18
Planning Documents	1/15/19	3/17/19
Alpha Prototype Development	01/15/19	3/15/18
Alpha Prototype Evaluation and Revisions	3/16/18	5/18/18
Beta Prototype Evaluation by SMEs/IDEs	5/27/19	6/11/19
Beta Evaluation Review and Feasibility Study	6/11/19	6/17/19
Final Tutorial Production	6/18/19	8/3/19
Final Tutorial Published	6/18/19	8/3/19

# Appendix P

Detailed Budget

TASK	PERSONNEL	Estimated Hours	Estimated Cost	Total Cost
	Phase 1: Planning			
Needs Analysis	Instructional Designer	3	\$50	\$150
Scope, Goal, and Objectives	Instructional Designer	5	\$50	\$250
Learner Analysis	Instructional Designer	1	\$50	\$50
Content Research	Instructional Designer	50	\$50	\$2,500
Evaluation Form	Instructional Designer	2	\$50	\$100
	Phase 2: Design		<b>A</b>	
Draw Flowchart	Instructional Designer	3	\$75	\$225
Design Look and Feel	Instructional Designer	10	\$50	\$500
Create Storyboards	Instructional Designer	20	\$75	\$1,500
Establish Style Guide	Instructional Designer	2	\$50	\$100
Select and Create Designs	Instructional Designer	5	\$50	\$250
Write Script	Instructional Designer	3	\$75	\$225
	Phase 3: Development	ı		
Develop Screens	Instructional Designer	6	\$75	\$450
Create Navigation System	Instructional Designer	6	\$50	\$300
Develop Interactions	Instructional Designer	20	\$75	\$1,500
Program Advance Actions	Instructional Designer	15	\$75	\$1,125
Test Alpha Version	Instructional Designer	3	\$50	\$150
Debug Alpha Version	Instructional Designer	10	\$75	\$750
Update Alpha Version	Instructional Designer	25	\$50	\$1,250
Publish Beta Version	Instructional Designer	1	\$50	\$50
Provide Beta Version to SMEs/IDEs	Subject Matter and Instructional Design Experts	1	\$75	\$75
Evaluate Beta Version	Instructional Designer	5	\$50	\$250
Collect and Review Evaluations	Instructional Designer	10	\$20	\$200
Study Feasibility of Proposed Changes	Instructional Designer	5	\$20	\$100
Make Recommended Changes	Instructional Designer	25	\$75	\$1,875
Publish Tutorial	Instructional Designer	1	\$75	\$75
Grand Total				\$14,000

# Appendix Q

## **Website Evaluation**

Occupation: Dept. Health Services - Staff Development Spee.
Highest Degree Completed (Circle One):
High School Associates Bachelor's Master's Doctorate's
Major: Public Admin.
<b>Age Group</b> (Circle One): 18 - 25 26 - 35 36 - 45 46 - 55 65 +

#	Page Layout	Yes	Sometimes / Not Sure	No
1	Appealing to target audience	X		
2	Consistent site header/logo	X		
3	Consistent navigation area	X		
4	Informative page title that includes the company/organization/site name	X	4	
5	Page footer area includes copyright, last update, contact e-mail address		×	
6	Good use of basic design principles: repetition, contrast, proximity, and alignment	×		
7	Displays without horizontal scrolling at 1024×768 and higher resolutions	X		
8	Balance of text/graphics/white space on page	X		
9	Good contrast between text and background	X		
10	Header and nav occupy less than ½ to ⅓ of the browser at 1024×768 resolution	×		
11	Home page downloads within ten seconds on dial-up connection	X		
#	Navigation	Yes	Sometimes / Not Sure	No
1	Main navigation links are clearly and consistently labeled	×		
2	Navigation is easy to use for target audience	×		
3	If main navigation uses images, clear text links are in the footer section of the page	×		
4	If main navigation uses Flash, clear text links are in the footer section of the page	$\prec$		
5	Navigation is structured in an unordered list	×		
6	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used	~		
7	All navigation hyperlinks "work" — are not broken	$\checkmark$		

#	Color and Graphics	Yes	Sometimes / Not Sure	No
1	Color scheme is limited to a maximum of three or four colors plus neutrals	×		
2	Color is used consistently	1		
3	Text color has sufficient contrast with background color	*		
4	Color is not used alone to convey meaning	*		
5	Use of color and graphics enhances rather than distracts from the site	4		
6	Graphics are optimized and do not significantly slow download	~		
7	Each graphic used serves a clear purpose	X		
8	Image tags use the alt attribute to configure an alternate text description	*		
9	Animated images do not distract from the site and do not endlessly repeat	X		
#	Content Presentation	Yes	Sometimes / Not Sure	No
1	Common fonts such as Arial or Times New Roman are used	X		
2	No more than one web font is used	X		
3	Techniques of writing for the Web are used: headings, bullet points, brief paragraphs	×		
4	Fonts, font sizes, and font colors are consistently used	~		
5	Content provides meaningful, useful information	X		
6	Content is organized in a consistent manner	X		
7	Information is easy to find (minimal clicks)	1		
8	Timeliness: The date of the last revision and/or copyright date is accurate	X		
9	Content does not include outdated material	X		
10	Content is free of typographical and grammatical errors	X		
11	Content provides links to other useful sites	X		
12	Avoids the use of "Click here" when writing text for hyperlinks	X		
13	Hyperlinks use a consistent set of colors to indicate visited/nonvisited status	X		
14	If graphics are used to convey meaning, the alternate text equivalent is provided	X		
15	If media is used to convey meaning, the alternate text equivalent is provided	X		

#	Accessibility	Yes	Sometimes / Not Sure	No
1	If main navigation uses images, text links are in the footer section of the page	X		
2	If main navigation uses Flash, text links are in the footer section of the page	X		
3	Navigation is structured in an unordered list			4
4	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used		*	
5	Color is not used alone to convey meaning	X		
6	Text color has sufficient contrast with background color	X		
7	Image elements use the alt attribute to configure an alternate text description	+		
8	If graphics are used to convey meaning, the alternate text equivalent is provided	4		
9	If media is used to convey meaning, the alternate text equivalent is provided	X		
10	Captions are provided for each audio or video file used	X		

#### Comments

"About TWEAITH" - When opended IE navigating buttons get lost

Suggest adding # of questions to "take Assessment such as I of 10 in the footer"

- 2) & music. This age group has a short aftention span & Assessment «Test/Quiz" don't feel as intense when light harted music is playing.
- 3) I would also advise the user to have a calculator near by, as some questions paper require basic math skills

\$2500 - 1300 = 1200/150 = 8

#### Website Evaluation

Occupation: Instructional Designer, eLearning Developer

Highest Degree Completed (Circle One):

High School Associates

Bachelor's

Master's

Doctorate's

Major: Instructional Designer, eLearning Developer

Age Group (Circle One):

18 - 25

26 - 35

36 - 45

46 - 55

65+

			Sometimes	
#	Page Layout	Yes	/ Not Sure	No
1	Appealing to target audience	X	71100 5410	2.00
2	Consistent site header/logo		x	
3	Consistent navigation area		x	
	Informative page title that includes the company/organization/site			
4	name	X		
5	Page footer area includes copyright, last update, contact e-mail address		x	
6	Good use of basic design principles: repetition, contrast, proximity, and alignment	x		
	Displays without horizontal scrolling at 1024×768 and higher	Α		
7	resolutions			х
8	Balance of text/graphics/white space on page	X		
9	Good contrast between text and background	X		
	Header and nav occupy less than ¼ to ⅓ of the browser at			
10	1024×768 resolution	X		
11	Home page downloads within ten seconds on dial-up connection	X		
#	Navigation	Yes	Sometimes / Not Sure	No
1	Main navigation links are clearly and consistently labeled	X		
2	Navigation is easy to use for target audience	X		
3	If main navigation uses images, clear text links are in the footer section of the page	x		
	If main navigation uses Flash, clear text links are in the footer			
4	section of the page	X		
5	Navigation is structured in an unordered list	X		
	Navigation aids, such as site map, skip navigation link, or			
6	breadcrumbs are used		X	
7	All navigation hyperlinks "work" — are not broken	X		

#	Color and Graphics	Yes	Sometimes / Not Sure	No
1	Color scheme is limited to a maximum of three or four colors plus neutrals			x
2	Color is used consistently	х		
3	Text color has sufficient contrast with background color	х		
4	Color is not used alone to convey meaning	х		
5	Use of color and graphics enhances rather than distracts from the site	x		
6	Graphics are optimized and do not significantly slow download	x		
7	Each graphic used serves a clear purpose	x		
8	Image tags use the alt attribute to configure an alternate text description		x	
9	Animated images do not distract from the site and do not endlessly repeat	x		
#	Content Presentation	Yes	Sometimes / Not Sure	No
1	Common fonts such as Arial or Times New Roman are used	х		
2	No more than one web font is used		x	
3	Techniques of writing for the Web are used: headings, bullet points, brief paragraphs	x		
4	Fonts, font sizes, and font colors are consistently used	x		
5	Content provides meaningful, useful information	x		
6	Content is organized in a consistent manner	x		
7	Information is easy to find (minimal clicks)		x	
8	Timeliness: The date of the last revision and/or copyright date is accurate		x	
9	Content does not include outdated material	x		
10	Content is free of typographical and grammatical errors	x		
11	Content provides links to other useful sites		X	
12	Avoids the use of "Click here" when writing text for hyperlinks	х		
13	Hyperlinks use a consistent set of colors to indicate visited/nonvisited status		x	
14	If graphics are used to convey meaning, the alternate text equivalent is provided		x	
15	If media is used to convey meaning, the alternate text equivalent is provided		x	

#	Accessibility	Yes	Sometimes / Not Sure	No
1	If main navigation uses images, text links are in the footer section of the page	X		
2	If main navigation uses Flash, text links are in the footer section of the page		x	
3	Navigation is structured in an unordered list	X		
4	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used		x	
5	Color is not used alone to convey meaning	х		
6	Text color has sufficient contrast with background color	X		
7	Image elements use the alt attribute to configure an alternate text description		x	
8	If graphics are used to convey meaning, the alternate text equivalent is provided		x	
9	If media is used to convey meaning, the alternate text equivalent is provided		x	
10	Captions are provided for each audio or video file used		x	

## Comments

It is a nice website. I like the color-coded menu you have. My only suggestion would be to thin out the text on the About Twealth page. It is a bit too dense.

Great job on everything.

## Website Evaluation

Occupation: Saucatar	
Highest Degree Completed (Circle One):	
High School Associates Bachelor's Master's Doctorate's	
Major: Organizational leadership	
Age Group (Circle One): 18 - 25 26 - 35 (36 - 45) 46 - 55	65 +

#	Page Layout	Yes	Sometimes / Not Sure	No
1	Appealing to target audience			
2	Consistent site header/logo			
3	Consistent navigation area	V		
4	Informative page title that includes the company/organization/site name	~		
5	Page footer area includes copyright, last update, contact e-mail address	2		
6	Good use of basic design principles: repetition, contrast, proximity, and alignment			
7	Displays without horizontal scrolling at 1024×768 and higher resolutions	~		
8	Balance of text/graphics/white space on page	1		
9	Good contrast between text and background	V		
10	Header and nav occupy less than ¼ to ⅓ of the browser at 1024×768 resolution			
11	Home page downloads within ten seconds on dial-up connection			
#	Navigation	Yes	Sometimes / Not Sure	No
1	Main navigation links are clearly and consistently labeled		]	
2	Navigation is easy to use for target audience			
3	If main navigation uses images, clear text links are in the footer section of the page			
4	If main navigation uses Flash, clear text links are in the footer section of the page			
5	Navigation is structured in an unordered list			
6	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used	V		-
7	All navigation hyperlinks "work" — are not broken	1		

#	Accessibility	Yes	Sometimes / Not Sure	No
1	If main navigation uses images, text links are in the footer section of the page	/		
2	If main navigation uses Flash, text links are in the footer section of the page	/		
3	Navigation is structured in an unordered list	V		_
4	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used	V		
5	Color is not used alone to convey meaning			
6	Text color has sufficient contrast with background color	V		
7	Image elements use the alt attribute to configure an alternate text description	V		
8	If graphics are used to convey meaning, the alternate text equivalent is provided			
9	If media is used to convey meaning, the alternate text equivalent is provided	/		
10	Captions are provided for each audio or video file used			

#### Comments

Overall it is a good website. Very easy to navigate, clear, and concise information. The assessment was clear. My only recommendation would be to make it a bit more appealing to the speafic as group, make tit a bit more relative and perhaps use examples relative and perhaps use examples such as taking a soing on a date or going to the movies. Experiences the youth can kelate to.

#### **Website Evaluation**

Occupation: Principal Research Analyst

**Highest Degree Completed** (Circle One):

High School Associates Bachelor's Master's Doctorate's

Major: Education

**Age Group** (Circle One): 18 - 25 26 - 35 36 - 45 46 - 55 65 +

			Sometimes	
#	Page Layout	Yes	/ Not Sure	No
1	Appealing to target audience	X		
2	Consistent site header/logo	X		
3	Consistent navigation area	X		
	Informative page title that includes the			
4	company/organization/site name		X	
_	Page footer area includes copyright, last update, contact e-			
5	mail address	X		
	Good use of basic design principles: repetition, contrast,			
6	proximity, and alignment	X		
7	Displays without horizontal scrolling at 1024×768 and	W.		
7	higher resolutions	X		
8	Balance of text/graphics/white space on page	X		
9	Good contrast between text and background	X		
10	Header and nav occupy less than ½ to ½ of the browser at 1024×768 resolution	X		
	Home page downloads within ten seconds on dial-up			
11	connection		X	
#	Navigation	Yes	Sometimes / Not Sure	No
1	Main navigation links are clearly and consistently labeled	X		
2	Navigation is easy to use for target audience	X		
	If main navigation uses images, clear text links are in the			
3	footer section of the page	X		
	If main navigation uses Flash, clear text links are in the			
4	footer section of the page	X		
5	Navigation is structured in an unordered list	X		
	Navigation aids, such as site map, skip navigation link, or			
6	breadcrumbs are used	X		
7	All navigation hyperlinks "work" — are not broken	X		

#	Color and Graphics	Yes	Sometimes / Not Sure	No
π	Color scheme is limited to a maximum of three or four	1 65	/ Not Sure	110
1	colors plus neutrals	X		
2	Color is used consistently	X		
3	Text color has sufficient contrast with background color	X		
4	Color is not used alone to convey meaning	X		
5	Use of color and graphics enhances rather than distracts from the site	X		
6	Graphics are optimized and do not significantly slow download	X		
7	Each graphic used serves a clear purpose	X		
8	Image tags use the alt attribute to configure an alternate text description	X		
9	Animated images do not distract from the site and do not endlessly repeat	X		
#	Content Presentation	Yes	Sometimes / Not Sure	No
1	Common fonts such as Arial or Times New Roman are used	X		
2	No more than one web font is used	X		
3	Techniques of writing for the Web are used: headings, bullet points, brief paragraphs	X		
4	Fonts, font sizes, and font colors are consistently used	X		
5	Content provides meaningful, useful information	X		
6	Content is organized in a consistent manner	X		
7	Information is easy to find (minimal clicks)	X		
8	Timeliness: The date of the last revision and/or copyright date is accurate	X		
9	Content does not include outdated material	X		
10	Content is free of typographical and grammatical errors	X		
11	Content provides links to other useful sites	X		
12	Avoids the use of "Click here" when writing text for hyperlinks	X		
13	Hyperlinks use a consistent set of colors to indicate visited/nonvisited status	X		
14	If graphics are used to convey meaning, the alternate text equivalent is provided	X		

15	If media is used to convey meaning, the alternate text equivalent is provided	X		
#	Accessibility	Yes	Sometimes / Not Sure	No
1	If main navigation uses images, text links are in the footer section of the page	X		
2	If main navigation uses Flash, text links are in the footer section of the page	X		
3	Navigation is structured in an unordered list	X		
4	Navigation aids, such as site map, skip navigation link, or breadcrumbs are used	X		
5	Color is not used alone to convey meaning	X		
6	Text color has sufficient contrast with background color	X		
7	Image elements use the alt attribute to configure an alternate text description	X		
8	If graphics are used to convey meaning, the alternate text equivalent is provided	X		
9	If media is used to convey meaning, the alternate text equivalent is provided	X		
10	Captions are provided for each audio or video file used	X		

# **Comments**

The website was clean and very easy to navigate through. It was user-friendly, and I can definitely see the target population being able to go through this website to obtain the information needed.

# Appendix R

### e-Learning Course Evaluation

Financial Literacy: Money Management

Occupation:	ept. Health	Senias	- Staff (	Development	Specialist
Highest Degree C	Completed (Circ	cle One):			
High School	Associates	Bachelor's	Master's	Doctorate's	
Major: Du	iblic Ad	min.			
Age Group (Circle	e One):	3 - 25 26	- 35 36 - 45	46 - 55	65 +

**Directions:** Please check off the response that best represents your assessment of the website.

#	Navigation	Yes	Sometimes/ Not Sure	No
	The navigation includes any buttons, tabs or hyperlinks within the elearning course that the learner uses to move around the course.			
1	The navigation is intuitive, simple to use and uncluttered. Extraneous navigation has been removed.	X		
2	The navigation is predictable. It is consistent in position, name and function throughout.	X		
3	There is a navigable menu available to the learner throughout the course, to help learners interpret the structure and themes of the course.	4		
4	There are no more than two levels of menu (Topic, Sub-topic).	X		
5	The navigation throughout the course includes:  Menu/Back/Forward/Replay/Progress/Transcript/Volume/Help/Glossary (if required)/Resources/Exit.	X		
#	Visual Design	Yes	Sometimes/ Not Sure	No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.			
1	The visual appeal of the course is maintained throughout.	X		
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.	×		
3	The visual design is simple, uncluttered, and clear.	X		
4	Illustrations are used to support learning and reduce text burden.	X		
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	×		
6	Elements of other organizational artifacts relating to the topic (posters, intranet pictures, etc.) are integrated into the visual design to create congruence between the course and organizational key messages.	X		

#	Instructional Approach	Yes	Sometimes/ Not Sure	No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.			
1	The visual appeal of the course is maintained throughout.	X		
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.	X		
3	The visual design is simple, uncluttered, and clear.	X		
4	Illustrations are used to support learning and reduce text burden	X		
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	*		
#	Interactivity	Yes	Sometimes/ Not Sure	No
	Interactivity is used throughout the course to involve and engage the learner in active learning. It calls a learner to action.	8.2		
1	The interactivity within the course is purposeful. It emphasizes critical content and helps the learner to develop judgment. e.g., scenario decision-making, problem-solving and workplace action plans.	7		
2	The interactivity within the course adds interest and dimension	X		
3	The interactivity emphasizes the value of learning the course content.	×		
4	The interactivity creates a memorable experience about the content.	X		
5	The e-learning course does not use 'click and reveal' of text.	X		
6	There are no functional errors	×		
#	Use of Narration / Text	Yes	Sometimes/ Not Sure	No
	Narration/text refers to the approach taken to impart the course content to the learner.			
1	The narration/text style helps reduce barriers between the learner and the course.		N/A No Sound	
2	The narration/text is clear, concise, unambiguous and to the point.			
3	Jargon is avoided or described before being used.	×		
4	Narration is used to supplement copious text on screen, to help learners process difficult content.			
5	Text on screen is not narrated verbatim.			
6	Narration and corresponding animation is presented simultaneously.			
7	Text written on screen is easy to read.	×		
8	Lots of white space is used to help learners scan text.	X		
9	Headers and font are consistent throughout.	7		
10	The font is dark against a white background	7		
11	There are no spelling mistakes or space inconsistencies	X		

#	Assessment	Yes	Sometimes/ Not Sure	No
	Assessment is the technique used to check the learner's understanding of the content.			
1	A variety of self-assessment types is placed throughout the course to enable the learner to assess personal mastery and gain confidence prior to the formal assessment.	4		
2	Formal assessment questions reflect the original learning objectives.	*		
3	Assessment questions are scenario-based, where possible.	X		
4	A variety of LMS trackable assessment types are used:  • 'True/false' to assess information retrieval  • 'Multiple choice with multiple or single response' to assess accuracy of concepts  • 'Place in order' to assess sequence-type knowledge  • 'Drag and drop' for name/action associations	*		

# **Financial Literacy Content Evaluation**

Is the financi	al literacy co	ntent concurrent wit	h today's st	tandards?	
485	•				
1-2					
A we there are					
	topics missi	ing that should be add	led?		
MO					
Ano there	. 4	. 1			
Are there any	topics incor	porated in the course	that shoul	d be deleted?	
NC.					
~					
Do you have a	any other sug	ggestions, feedback, o	r tips that	you would like	to add?
Great	JUB1	( want to	See	morre	
	,				
I					
-					

# e-Learning Course Evaluation

Financial Literacy: Money Management

Occupation:	Instructiona	l Designer, el	earning De	veloper			
Highest Degree	Completed (C	ircle One):					
High School	Associates	Bachelor'	s Mas	ster's	Doctorate's		
Major: Instru	ctional Design	and Technolo	gy				
Age Group (Cir	rcle One):	18 - 25	26 - 35	36 - 45	46 - 55	65 +	

Directions: Please check off the response that best represents your assessment of the website.

#	Navigation	Yes	Sometimes/ Not Sure	No
	The navigation includes any buttons, tabs or hyperlinks within the e- learning course that the learner uses to move around the course.			
1	The navigation is intuitive, simple to use and uncluttered. Extraneous navigation has been removed.		x	
2	The navigation is predictable. It is consistent in position, name and function throughout.		x	
3	There is a navigable menu available to the learner throughout the course, to help learners interpret the structure and themes of the course.	x		
4	There are no more than two levels of menu (Topic, Sub-topic).	X		
5	The navigation throughout the course includes:  Menu/Back/Forward/Replay/Progress/Transcript/Volume/Help/Glossary (if required)/Resources/Exit.	x		
			Sometimes/	
#	Visual Design	Yes	Not Sure	No
#	Visual Design  Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.	Yes		No
1	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen	Yes		No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.			No
1	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  The visual appeal of the course is maintained throughout.  Graphics are appropriately used throughout to help learners develop a	X		No
1 2	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  The visual appeal of the course is maintained throughout.  Graphics are appropriately used throughout to help learners develop a mental model of the content.  The visual design is simple, uncluttered, and clear.  Illustrations are used to support learning and reduce text burden.	X	Not Sure	No
1 2 3	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  The visual appeal of the course is maintained throughout.  Graphics are appropriately used throughout to help learners develop a mental model of the content.  The visual design is simple, uncluttered, and clear.  Illustrations are used to support learning and reduce text burden.  Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	x	Not Sure	No
1 2 3 4	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  The visual appeal of the course is maintained throughout.  Graphics are appropriately used throughout to help learners develop a mental model of the content.  The visual design is simple, uncluttered, and clear.  Illustrations are used to support learning and reduce text burden.  Text describing a graphic is located proximal to the graphic, to reduce visual scanning.  Elements of other organizational artifacts relating to the topic (posters,	x	Not Sure	No
1 2 3 4	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  The visual appeal of the course is maintained throughout.  Graphics are appropriately used throughout to help learners develop a mental model of the content.  The visual design is simple, uncluttered, and clear.  Illustrations are used to support learning and reduce text burden.  Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	x	Not Sure	No

#	Instructional Approach	Yes	Sometimes/ Not Sure	No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.			
1	The visual appeal of the course is maintained throughout.		X	
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.	x		
3	The visual design is simple, uncluttered, and clear.		X	
4	Illustrations are used to support learning and reduce text burden	X		
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	x		
#	Interactivity	Yes	Sometimes/ Not Sure	No
	Interactivity is used throughout the course to involve and engage the learner in active learning. It calls a learner to action.			
1	The interactivity within the course is purposeful. It emphasizes critical content and helps the learner to develop judgment. e.g., scenario decision-making, problem-solving and workplace action plans.		x	
2	The interactivity within the course adds interest and dimension	X		
3	The interactivity emphasizes the value of learning the course content.	х		
4	The interactivity creates a memorable experience about the content.	х		
5	The e-learning course does not use 'click and reveal' of text.	х		
6	There are no functional errors	x		
#	Use of Narration / Text	Yes	Sometimes/ Not Sure	No
	Narration/text refers to the approach taken to impart the course content to the learner.			
1	The narration/text style helps reduce barriers between the learner and the course.	x		
2	The narration/text is clear, concise, unambiguous and to the point.	X		
3	Jargon is avoided or described before being used.	х		
4	Narration is used to supplement copious text on screen, to help learners process difficult content.	x		
5	Text on screen is not narrated verbatim.	X		
6	Narration and corresponding animation is presented simultaneously.	х		
7	Text written on screen is easy to read.	х		
8	Lots of white space is used to help learners scan text.		X	
9	Headers and font are consistent throughout.	Х		
10	The font is dark against a white background	X		
11	There are no spelling mistakes or space inconsistencies			X

#	Assessment	Yes	Sometimes/ Not Sure	No
	Assessment is the technique used to check the learner's understanding of the content.			
1	A variety of self-assessment types is placed throughout the course to enable the learner to assess personal mastery and gain confidence prior to the formal assessment.	x		
2	Formal assessment questions reflect the original learning objectives.	X		
3	Assessment questions are scenario-based, where possible.		x	
4	A variety of LMS trackable assessment types are used:  • 'True/false' to assess information retrieval  • 'Multiple choice with multiple or single response' to assess accuracy of concepts  • 'Place in order' to assess sequence-type knowledge  • 'Drag and drop' for name/action associations	x		

#### Comments

I really liked it. It tackles an important and broad subject. The instructional content is well thought out and presented.

Perhaps if you complete the project you could use an actual voice to replace the robot voice.

I would also suggest really cleaning up the user interface. There are few screens that require a bit of thought before accessing the interactivity and a few screens with circles which appear to be buttons, but are actually just circles. In short I would look for a way to make it clear when the learner needs to act rather than simply push "continue".

# Financial Literacy Content Evaluation

Is the financial literacy content concurrent with today's standards?
I believe so, but this is outside my area of expertise.
And there are tonics missing that should be added?
Are there any topics missing that should be added?
I would address credit cards for sure, since they start giving them out to college freshman. Maybe you already plan to cover it under "Borrowing" though.
Are there any topics incorporated in the course that should be deleted?
N.
No.
Do you have any other suggestions, feedback, or tips that you would like to add?
Do you have any other suggestions, feedback, or ups that you would like to add:
I feel as though it is a beta or alpha now, so my assumption is that the few screens where the formatting is off will be spruced up along the way. My only specific suggestion would be to clean up the user interface and make it obvious what the learner should be doing at any given point.
formatting is off will be spruced up along the way. My only specific suggestion would be to clean
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# e-Learning Course Evaluation

Financial Literacy: Money Management

Decupation: Educatur	-
Highest Degree Completed (Circle One):	
High School Associates Bachelor's (Master's Doctorate's	
Major: Organizationa @ leadership	_
Age Group (Circle One): 18 - 25 26 - 35 (36 - 45) 46 - 55 65 +	
Directions: Please check off the response that best represents your assessment of the website.	

#	Navigation	Yes	Sometimes/ Not Sure	No
	The navigation includes any buttons, tabs or hyperlinks within the elearning course that the learner uses to move around the course.	V		
1	The navigation is intuitive, simple to use and uncluttered. Extraneous navigation has been removed.			
2	The navigation is predictable. It is consistent in position, name and function throughout.			
3	There is a navigable menu available to the learner throughout the course, to help learners interpret the structure and themes of the course.	V		
4	There are no more than two levels of menu (Topic, Sub-topic).	V		
5	The navigation throughout the course includes:  Menu/Back/Forward/Replay/Progress/Transcript/Volume/Help/Glossary (if required)/Resources/Exit.	~		
#	Visual Design	Yes	Sometimes/ Not Sure	No
	Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.			
1	The visual appeal of the course is maintained throughout.			
2	Graphics are appropriately used throughout to help learners develop a mental model of the content.			
3	The visual design is simple, uncluttered, and clear.			
4	Illustrations are used to support learning and reduce text burden.			
5	Text describing a graphic is located proximal to the graphic, to reduce visual scanning.	/		
6	Elements of other organizational artifacts relating to the topic (posters, intranet pictures, etc.) are integrated into the visual design to create congruence between the course and organizational key messages.			

#	Assessment	Yes	Sometimes/ Not Sure	No
	Assessment is the technique used to check the learner's understanding of the content.			
1	A variety of self-assessment types is placed throughout the course to enable the learner to assess personal mastery and gain confidence prior to the formal assessment.	/		
2	Formal assessment questions reflect the original learning objectives.	1		
3	Assessment questions are scenario-based, where possible.			
4	A variety of LMS trackable assessment types are used:  • 'True/false' to assess information retrieval  • 'Multiple choice with multiple or single response' to assess accuracy of concepts  • 'Place in order' to assess sequence-type knowledge  • 'Drag and drop' for name/action associations			

#### Comments

Oxagnics can be more relevant to the youth an age group this is intended fore.

# e-Learning Course Evaluation

Financial Literacy: Money Management

Occupation <u>:</u>	<u>Princ</u>	ipal Research	<u>Analyst</u>			
Highest Degree	e Completed (	Circle One):				
High School	Associates	Bachelor's	Ma	ster's	Doctorate's	
Major:	<u>Educa</u>	tion				· · · · · · · · · · · · · · · · · · ·
Age Group (Ci	role One):	18 - 25	26 - 35	36 - 45	46 - 55	65 ±

**Directions:** Please check off the response that best represents your assessment of the website.

		<b>T</b> 7	Sometimes	N.T.
#	Navigation	Yes	/ Not Sure	No
	The navigation includes any buttons, tabs or hyperlinks			
	within the e-learning course that the learner uses to move			
	around the course.			
1	The navigation is intuitive, simple to use and uncluttered.		37	
1	Extraneous navigation has been removed.		X	
	The navigation is predictable. It is consistent in position,			
2	name and function throughout.	X		
	There is a navigable menu available to the learner			
	throughout the course, to help learners interpret the			
3	structure and themes of the course.	X		
	There are no more than two levels of menu (Topic, Sub-			
4	topic).	X		
	The navigation throughout the course includes:			
	Menu/Back/Forward/Replay/Progress/Transcript/Volume/			
5	Help/Glossary (if required)/Resources/Exit.	X		
			Sometimes	
#	Visual Design	Yes	/ Not Sure	No
	Visual design includes the look and feel of the course itself,			
	image type and treatment, and use of whitespace. The aim			
	is to ensure each screen is easy and interesting to interpret			
	and learn from.			
1	The visual appeal of the course is maintained throughout.	X		
	Graphics are appropriately used throughout to help learners			
2	develop a mental model of the content.	X		
3	The visual design is simple, uncluttered, and clear.	X		
	Illustrations are used to support learning and reduce text			
4	burden.	X		
	Text describing a graphic is located proximal to the			
5	graphic, to reduce visual scanning.	X		

topic (posters, intranet pictures, etc.) are integrated into the visual design to create congruence between the course and organizational key messages.  # Instructional Approach  Visual design includes the look and feel of the course itself, image type and treatment, and use of whitespace. The aim is to ensure each screen is easy and interesting to interpret and learn from.  1 The visual appeal of the course is maintained throughout.  Craphics are appropriately used throughout to help learners develop a mental model of the content.  The visual design is simple, uncluttered, and clear.
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1 The visual appeal of the course is maintained throughout. X Graphics are appropriately used throughout to help learners develop a mental model of the content. X
Graphics are appropriately used throughout to help learners develop a mental model of the content.
2 develop a mental model of the content. X
^
3 The visual design is simple, uncluttered, and clear.
Illustrations are used to support learning and reduce text
4 burden X
Text describing a graphic is located proximal to the
5 graphic, to reduce visual scanning. X
Sometimes
# Interactivity Yes / Not Sure No
Interactivity is used throughout the course to involve and
engage the learner in active learning. It calls a learner to
action.
The interactivity within the course is purposeful. It
emphasizes critical content and helps the learner to develop
judgment. e.g., scenario decision-making, problem-solving
1 and workplace action plans. X
The interactivity within the course adds interest and
2 dimension X
The interactivity emphasizes the value of learning the
3 course content. X
The interactivity creates a memorable experience about the
4 content. X
The e-learning course does not use 'click and reveal' of
5 text. X
6 There are no functional errors X
Sometimes
# Use of Narration / Text Yes / Not Sure No
Narration/text refers to the approach taken to impart the
course content to the learner.
The narration/text style helps reduce barriers between the
1 learner and the course. X
The narration/text is clear, concise, unambiguous and to the
2 point. X
3 Jargon is avoided or described before being used. X

	Negretian is used to supplement conjugatest on seven to			
4	Narration is used to supplement copious text on screen, to help learners process difficult content.	X		
5	Text on screen is not narrated verbatim.	X		
	Narration and corresponding animation is presented	1		
6	simultaneously.	X		
7	Text written on screen is easy to read.	X		
8	Lots of white space is used to help learners scan text.	X		
9	Headers and font are consistent throughout.	X		
10	The font is dark against a white background	X		
11	There are no spelling mistakes or space inconsistencies	X		
			Sometimes	
#	Assessment	Yes	/ Not Sure	No
	Assessment is the technique used to check the learner's understanding of the content.			
	A variety of self-assessment types is placed throughout the			
	course to enable the learner to assess personal mastery and			
1	gain confidence prior to the formal assessment.	X		
	Formal assessment questions reflect the original learning			
2	objectives.	X		
3	Assessment questions are scenario-based, where possible.	X		
	A variety of LMS trackable assessment types are used:			
	'True/false' to assess information retrieval			
	• 'Multiple choice with multiple or single response' to			
		1		1
	assess accuracy of concepts			
	<ul><li> 'Place in order' to assess sequence-type knowledge</li><li> 'Drag and drop' for name/action associations</li></ul>			

#### Comments

Overall, I felt that course was easy to understand, content was organized, and the information presented in the course was relevant to the current world of finance. Some technical glitches were noted (the exit button for each of the lessons did not let me leave the lesson, but I was ale to move on by using the continue button below), but none too serious and may be due to the type of browser I was using (google chrome).

# **Financial Literacy Content Evaluation**

Is the financial literacy content concurrent with today's standards?
I believe the content was concurrent with today's standards. The information was relevant to the economic trend of today, and scenarios used in the applied portion of the e-learning was relatable and realistic. Because of this, it was easy to put myself in that situation and the information provided was absorbed organically.
Are there any topics missing that should be added?
v 1 9
No, the content was rich and detailed. Adding more topics would probably make it too heavy.
Are there any topics incorporated in the course that should be deleted?
No, the topics incorporated into the course was consistent with money management and
financial literacy, deleting any of it would not be necessary.
Do you have any other suggestions, feedback, or tips that you would like to add?
The state of the s
I can see this being used for professional developments and resources for college students to be used as an entry level guide to help someone learn financial literacy. Adding more topics would probably allow it to be used for multiple purposes beyond simply financial literacy, I think this is a wonderful start for something with a much larger potential.

# Appendix S

# **Money Management Slide Template**

Published by Articulate® Storyline www.articulate.com

# 1. Money Management

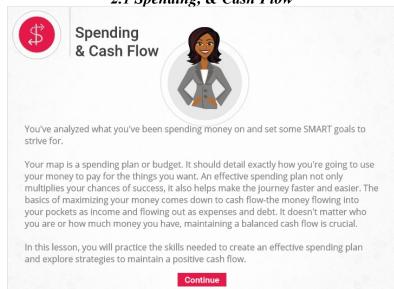


#### 1.2 MAIN MENU LAYOUT



# 2. Spending and Cash Flow

# 2.1 Spending, & Cash Flow



# 2.2 Learning Objectives



2.3 Gotcha!



### 2.4 LIST LAYOUT



# 2.5 MULTIPLE CHOICE QUESTION

(Multiple Choice, 10 points, 2 attempts permitted)



Correct	Choice
X	Michael \$134; Selena \$-18
	Michael \$13; Selena \$180
	Michael \$134; Selena \$18
	Michael \$ -134; Selena \$18

#### Feedback when correct:

That's right! You selected the correct response.

### Feedback when incorrect:

You did not select the correct response.







# 2.6 MULTIPLE CHOICE QUESTION

(Multiple Choice, 10 points, 2 attempts permitted) Spending Plan Can Michael Save Money? What can expense should Michael adjust to save \$160 a month? Cell Phone \$45 \$0 ( ) Gas Car Insurance \$70 \$0 Food \$120 \$60 Cell Phone Gas \$40 \$0 Car Insurance Clothes \$30 \$60 Entertainment \$100 \$40 Entertainment Personal Care \$5 \$10 Donations \$0 \$8 **Total Expenses** \$410 \$178 Estimated Income \$544 \$160 Submit Difference \$134 \$(18)

Correct	Choice	
	Gas	
	Cell Phone	
	Car Insurance	
X	Entertainment	

#### Feedback when correct:

That's right! You selected the correct response. Remember, entertainment is a want and not a need. Therefore, Michael can reduce his spending on entertainment.

#### Feedback when incorrect:

You did not select the correct response. Remember, entertainment is a want and not a need. Therefore, Michael can reduce his spending on entertainment.

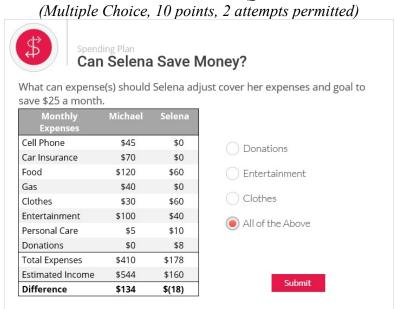




127



# 2.7 MULTIPLE CHOICE QUESTION



Correct	Choice	
	Donations	
	Entertainment	
	Clothes	
X	All of the Above	

#### Feedback when correct:

That's right! You selected the correct response. Remember, entertainment and donations is a want and not a need. Clothes are a need, however, Selena can reduce cost by bargain shopping.

#### Feedback when incorrect:

You did not select the correct response. Remember, entertainment and donations is a want and not a need. Clothes are a need, however, Selena can reduce cost by bargain shopping.





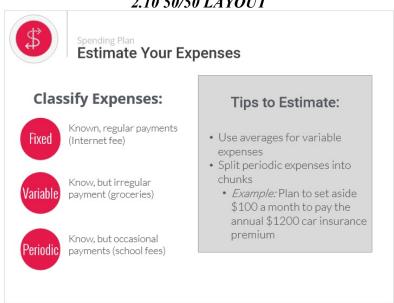




#### 2.9 THREE COLUMN LAYOUT



### 2.10 50/50 LAYOUT



# 2.11 PYF - Pay Yourself First



# PYF - Pay Yourself First

Set aside money for "big ticket" items.

Avoid borrowing, which costs you more money.

Very wise to save a little now for later.

Every time you PYF you have more money to spend later on things that are important

# 2.12 Make Adjustments



# Spending Plan Make Adjustments

Ideal Situation: Spend at or below your means

Income > or = Expenses

#### If Expenses > Income

- **↑** income
- unnecessary expenses

#### If Income > Expenses

- ↑ PYF savings funds
- ◆ any loan obligations

# 2.13 Without a Spending Plan



#### Spending Plan

# Without a Spending Plan

- May come up short on money before the next paycheck or allowance payment
- More likely to not reach long-term spending goals
- Added stress if struggling to keep up with payments
- May need to give up something you planned if money needs to be used for unexpected emergencies
- Give up independence if you need to rely on others for financial help



# 2.15 Is your plan working?



# Is Your Plan Working? Plan for a Cash Flow

- 1. Compare your actual income with anticipated income
- 2. Compare your actual spending with planned spending
- 3. Make adjustments:
  - Increase your income
  - Decrease your expenses
  - Combination of both

# 2.16 Get a Bigger Bucket



# Cash Flow Get a Bigger Bucket

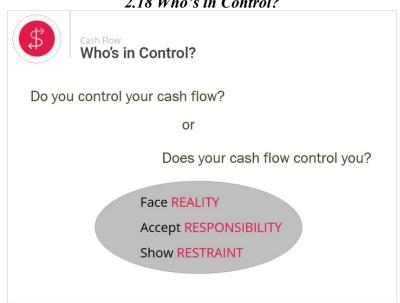
- Be crafty
- Help your neighbors
- Teach others
- ☐ Be a tech troubleshooter
- Work for your parents
- Start an Internet business



# 2.17 Plug Your Money Leaks



### 2.18 Who's in Control?



# 2.19 Track Your Money



# Cash Flow Track Your Money

- Envelope system
- Weekly receipt tally
- Checking account register
- Spreadsheet
- Personal finance software or app



# 2.20 Stop Drop and Think Before You Buy Test



Cash Flow

Stop, Drop, & Think Before You Buy

### Before you buy, ask these questions:

- ☐ Do I need this or do I want it?
- ☐ If I don't need it, why do I want it?
- Exactly when will I use (or wear) it?
- ☐ Could I find it for less somewhere else?
- What will I have to give up or put off by buying this now?

# 2.21 Wise Up Before You Pay Up



Cash Flow

# Wise Up Before You Pay Up

- Watch for different prices in the store and online.
- ☐ Calculate the shipping costs and sales tax.
- Find out about any additional costs you will have if you make the purchase.
- ☐ Check out product and service reviews to uncover potential risks, hazards, and defects through objective reviews.
- Know the return and repair policies.

# 2.22 When Life Changes, Change the Plan



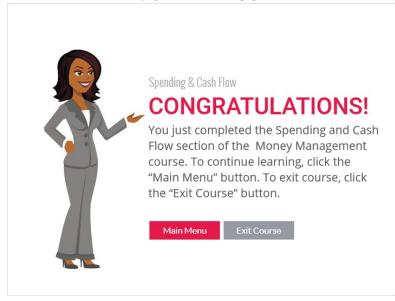
Cash Flow

When Life Changes, Change the Plan

#### What if ...

- You get a job that pays more?
- Are scheduled to work fewer hours?
- Get laid off or fired?
- Your bus fare increases?
- Achieve your goal(s)?

# 2.23 EXIT LAYOUT



# **3. Goals 3.1 Goals**



### **Smart Goals**



Many people spend, spend, spend, and then wonder why they're short of funds when it's time to pay the bills or why they never have the money for the things they really want. If they had set clear goals, created plans to achieve them, and worked the plans as faithfully as they watch their favorite TV shows, they'd be much less stressed and a whole lot happier.

In this lesson, students plan goals that will achieve their desired financial results.

Continue

# 3.2 Learning Objectives



# Goals **Learning Objectives**

#### Objective 1

Discuss how personal goals can be achieved through money goals.

#### Objective 2

Explain how to write an effective financial goal.

#### Objective 3

Discuss how to prioritize actions while working to achieve several goals at the same time.



#### 3.3 SMART Goals



SMART Goals

S pecific
Measurable
Attainble
Relevant
Time-Bound

#### 3.4 Get SMART with Goals



#### Goals

#### **Get SMART** with Goals

Read and decide whether or not Michael or Selena will be able to successfully achieve their goal. Choose your response by clicking on a red box below.



Selena mentions to her older brother that she wants to save some money before she graduates from high school. When he asks her how much, she doesn't have a solid answer.

When Michael tells a co-worker about needing to get new tires, he's shocked to learn from her that a set of tires costs about \$500.



Selena will successfully schieve her goal Michael will successfully achieve his goal Both Selena and Michael will successfully achieve their goal Neither Selena nor Michael will successfully achieve their goal

# **Correct (Slide Layer)**



# Get SMART with Goals

Read and decide whether or not Michael or Selena will be able to successfully achieve their goal. Choose your response by clicking on a red box below.



Selena mentions to her older brother that she wants to save some money before she graduates from high school. When he asks her how much, she doesn't have a solid answer.

When Michael tells a co-worker about needing to get new tires, he's shocked to learn from her that a set of tires costs about \$500.





Correct! Both Selena's and Michael's goals lack necessary specifications that will help them successfully attain their goal. In other words, they lack **SMART** goals.

Continue

### **Incorrect Selena (Slide Layer)**



#### Gnals

#### **Get SMART** with Goals

Read and decide whether or not Michael or Selena will be able to successfully achieve their goal. Choose your response by clicking on a red box below.



Selena mentions to her older brother that she wants to save some money before she graduates from high school. When he asks her how much, she doesn't have a solid answer.

When Michael tells a co-worker about needing to get new tires, he's shocked to learn from her that a set of tires costs about \$500.





Incorrect. Selena's goal lacks the necessary specifications that will help her successfully attain her goal. In other words, lacks **SMART** goals.

Retry

### **Incorrect Michael (Slide Layer)**



#### **Get SMART** with Goals

Read and decide whether or not Michael or Selena will be able to successfully achieve their goal. Choose your response by clicking on a red box below.



Selena mentions to her older brother that she wants to save some money before she graduates from high school. When he asks her how much, she doesn't have a solid answer.

When Michael tells a co-worker about needing to get new tires, he's shocked to learn from her that a set of tires costs about \$500.



Incorrect. Michael's goal lacks the necessary specifications that will help him successfully attain his goal. In other words, he lacks **SMART** goals.

#### **Incorrect Both (Slide Layer)**



#### **Get SMART** with Goals

Read and decide whether or not Michael or Selena will be able to successfully achieve their goal. Choose your response by clicking on a red box below.



Selena mentions to her older brother that she wants to save some money before she graduates from high school. When he asks her how much, she doesn't have a solid answer.

When Michael tells a co-worker about needing to get new tires, he's shocked to learn from her that a set of tires costs about \$500.



Incorrect! Both Selena's and Michael's goals lack necessary specifications that will help them successfully attain their goal. In other words, they lack SMART goals.

Retry

#### 3.5 SMART Goals Guide



#### **SMART Goals Guide**

SMART Goals Guide		
Specific	<ul> <li>What exactly needs to be accomplished?</li> <li>Who else will be involved?</li> <li>Where will this take place?</li> <li>Why do I want to accomplish the goal?</li> </ul>	
Measurable	How will I know I've succeeded? How much change needs to occur? How many accomplishments or actions will it take?	
Attainable	Do I have, or can I get, the resources needed to achieve the goal? Is the goal a reasonable stretch for me? (neither out of reach nor too easy) Are the actions I plan to take likely to bring success?	
Relevant	Is this a worthwhile goal for me right now?     Is it meaningful to me—or just something others think I	

# 3.6 Is the Goal Specific?

page 15



#### Goals

# Is the Goal Measurable?

- How will I know I have succeeded?
- · How much change needs to occur?
- · How many actions will it take?

Mike needs to have tires on his car with treads that provide good traction when driving in snow and rain conditions.

- 1. Find out how much new tires cost.
- 2. Save the money to buy tires.
- 3. Schedule an appointment to replace tires.

# 3.7 Is the Goal Specific?

page 15



### Is the Goal Attainable?

- Do I have, or can I get, the resources needed to achieve the goal?
- Is the goal a reasonable stretch for me? (neither out of reach nor too easy)
- Are the actions I plan to take likely to bring success?

Mike has money saved and is also working, so he can pay for the new tires. He also can compare prices at three businesses near his house.

3.8 Is the Goal Specific?

page 15



## Is the Goal Relevant?

- Is this a worthwhile goal for me right now?
- Is it meaningful to me?
- Will it delay or prevent me from achieving a more important goal?
- Am I willing to commit to achieving this goal?

Mike wants to replace his current, worn-out tires for new tires. This will improve fuel efficiency and reduce the risk of having a flat tire at an inconvenient time.

# 3.9 Is the Goal Specific?

page 15



# Is the Goal Time-Bound?

- What is the deadline for reaching the goal?
- When do I need to take action?
- · What can I do today?

Mike wants to replace his tires soon, preferably by the end of next month. By the end of this week, he will request three quotes to compare tire prices.

#### 3.10 Goal Makeover

page 16

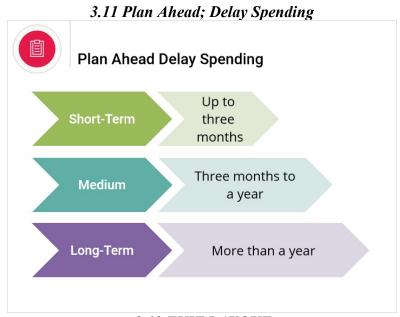


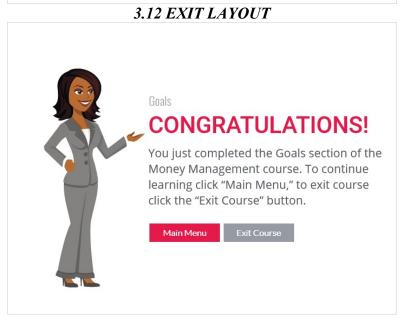
#### **Goal Makeover Practice**

Rewrite the following statement into SMART a goal?

Buy a new computer in 6 months.

SMART Guide		
Specific	What exactly needs to be accomplished? Who else will be involved? Where will this take place? Why do I want to accomplish the goal?	Type your Specific statement.
Measurable	How will I know I've succeeded? How much change needs to occur? How many accomplishments or actions	Type your Measurable statement.





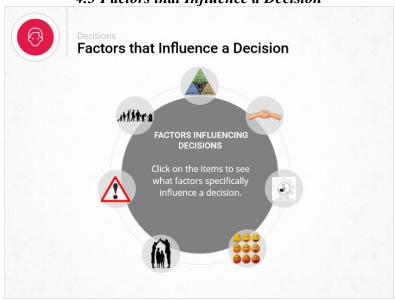
# 4. Making Decisions

## 4.1 Making Decisions





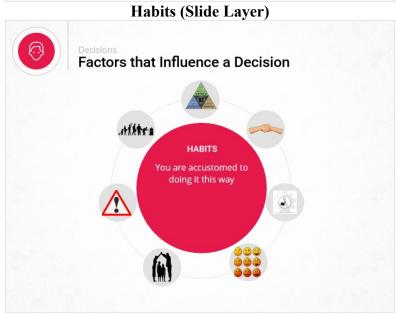




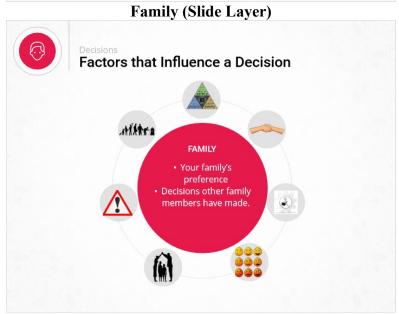
Values (Slide Layer)



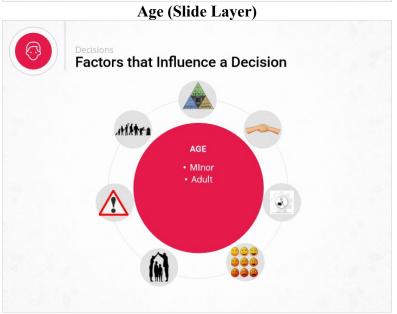




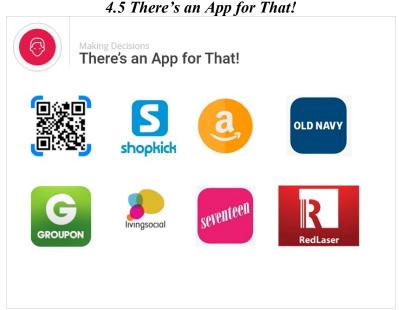












#### 4.6 DECIDE to Make a Sensible Decision



# Making Decisions **DECIDE to Make a Sensible Decision**

Define your goal.

Establish criteria for an acceptable outcome.

Choose two or three good options.

dentify pros and cons of the options.

Decide the option that best matches criteria.

Evaluate the results.

#### 4.7 EXIT LAYOUT



**Making Decisions** 

# **CONGRATULATIONS!**

You just completed the Decisions section of the Money Management course. To continue learning click "Main Menu," to exit course click the "Exit Course" button.

Main Menu

Exit Course

# 5. Money Habits 5.1 Money Habits



**Money Habits** 

Habits can help you soar to success or keep you panting on the treadmill, with success always out of reach. They're sneaky, too. Because habits are automatic, they kick in before you can stop to think about how they're going to help you or hurt you in the long

In this lesson, students examine their current habits, spending values and money attitudes to better understand how values and attitudes can impact relationships and financial decisions.

Continue

# 5.2 Learning Objectives





# 5.4 Meet Michael and Selena



5.5 DRAG-AND-DROP

(Drag and Drop, 10 points, 2 attempts permitted)



Drag Item	Drop Target
I buy fast food after school ever day.	Negative (-)
	Spending Habit
I pay bills as soon as I get them.	Positive (+)
	Spending Habit
I regularly check my money stash and/or	Positive (+)
account information.	C 1' II-1.'4
	Spending Habit
I buy a couple DVDs with each paycheck.	Negative (-)
	Spending Habit

Drag and drop properties
Return item to start point if dropped outside the correct drop target
Snap dropped items to drop target (Snap to center)

That's right! You selected the correct response.

# Feedback when incorrect:

# **Correct (Slide Layer)**



I regularly check my money stash and/or account information.

l buy a couple DVDs with each paycheck.

Continue



# 5.6 DRAG-AND-DROP

(Drag and Drop, 10 points, 1 attempt permitted)



Drag Item	Drop Target
I buy fast food after school ever day.	Negative (-)
	Spending Habit
I pay bills as soon as I get them.	Positive (+)
	Spending Habit
I regularly check my money stash and/or	Positive (+)
account information.	

	Spending Habit	
I buy a couple DVDs with each paycheck.	Negative (-)	
	Spending Habit	

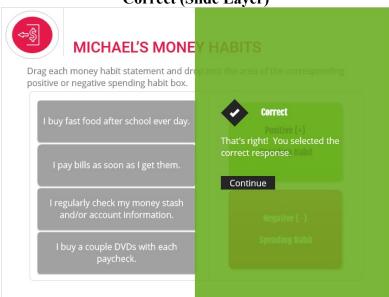
Drag and drop properties
Return item to start point if dropped outside the correct drop target
Snap dropped items to drop target (Snap to center)

That's right! You selected the correct response.

### Feedback when incorrect:

You did not select the correct response.

# **Correct (Slide Layer)**





#### 5.7 DRAG-AND-DROP

(Drag and Drop, 10 points, 2 attempts permitted)

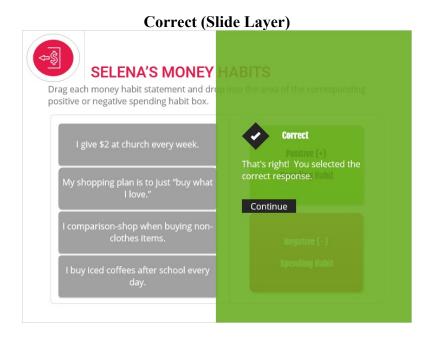


Drag Item	Drop Target
I give \$2 at church every week.	Positive (+)
	Spending Habit
My shopping plan is to just "buy what I love."	Negative (-)
	Spending Habit
I comparison-shop when buying non- clothes items.	Positive (+)
	Spending Habit
I buy iced coffees after school every day.	Negative (-)
	Spending Habit

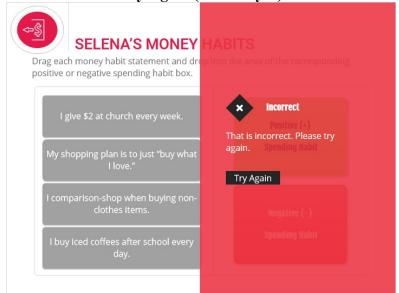
Drag and drop properties
Return item to start point if dropped outside the correct drop target
Snap dropped items to drop target (Snap to center)

That's right! You selected the correct response.

#### Feedback when incorrect:







5.8 DRAG-AND-DROP

(Drag and Drop, 10 points, 1 attempt permitted)

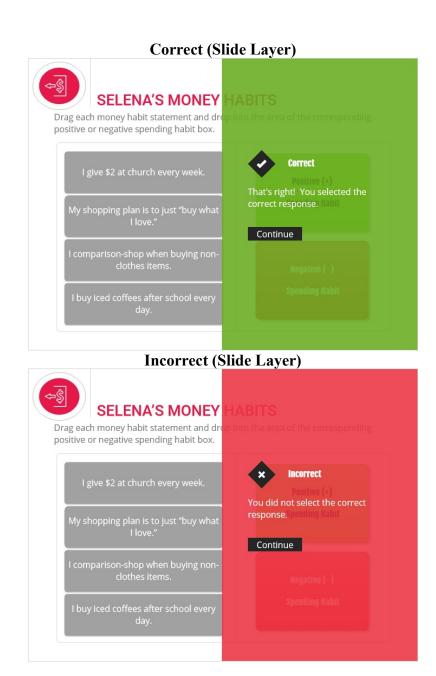


Drag Item	Drop Target
I give \$2 at church every week.	Positive (+)
	Spending Habit
My shopping plan is to just "buy what I	Negative (-)
love."	
	Spending Habit
I comparison-shop when buying non-	Positive (+)
clothes items.	
	Spending Habit
I buy iced coffees after school every day.	Negative (-)
	Spending Habit

Drag and drop properties
Return item to start point if dropped outside the correct drop target
Snap dropped items to drop target (Snap to center)

That's right! You selected the correct response.

# Feedback when incorrect:



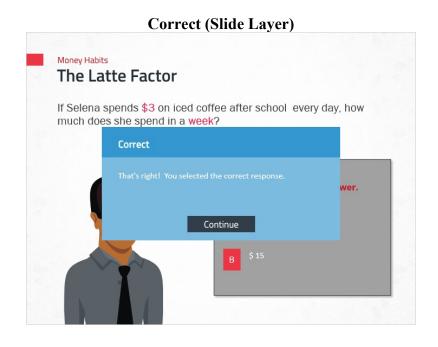
5.9 The Latte Factor (Pick One, 10 points, 2 attempts permitted)

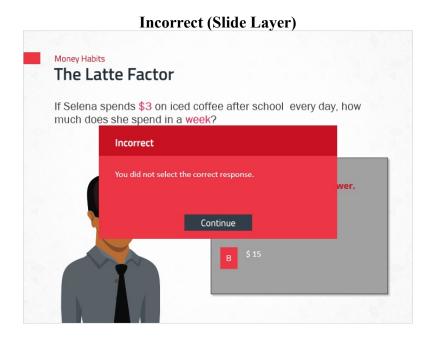


Correct	Choice	
	Choice A	
X	Choice B	

That's right! You selected the correct response.

# Feedback when incorrect:







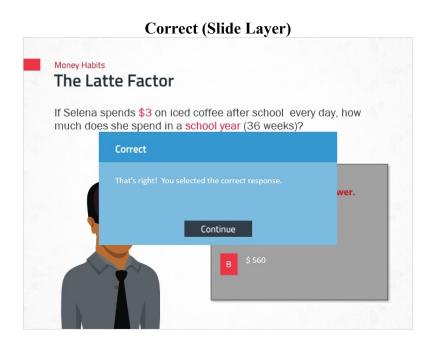
5.10 The Latte Factor (Pick One, 10 points, 2 attempts permitted)

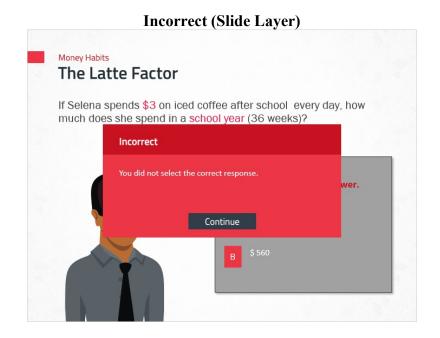


Correct	Choice	
X	Choice A	
	Choice B	

That's right! You selected the correct response.

## Feedback when incorrect:







## 5.11 Latte Factor



# **Latte Factor**

If Selena spends \$3 on iced coffee after school every day, she will spend ...

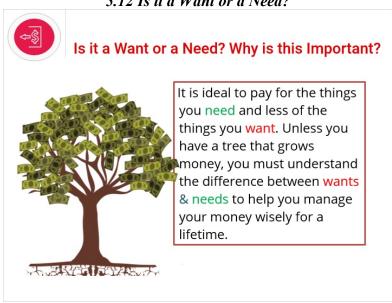
... \$15 in a week (\$3 x 5 days)

... about \$540 in a school year (\$3 x 180 days)

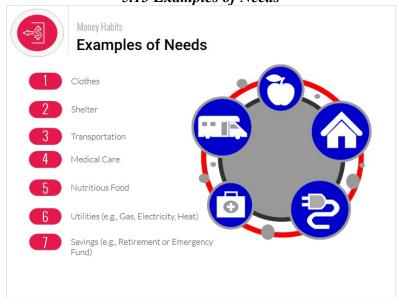
What else could she have done with that money?

Type your answer here

#### 5.12 Is it a Want or a Need?

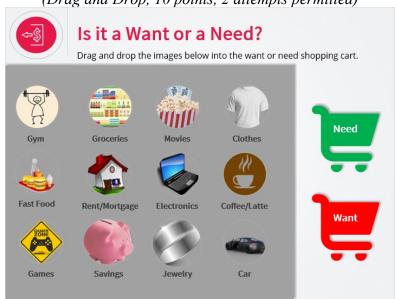


# 5.13 Examples of Needs





# 5.15 Is it a Want or a Need? (Drag and Drop, 10 points, 2 attempts permitted)



Drag Item	Drop Target
Car	Want
Groceries	Need
Movies	Want
Clothes	Need
Savings	Need
Rent	Need
Gym	Want
Fast Food	Want
Coffee	Want
Jewelry	Want
Games	Want
Electronics	Want

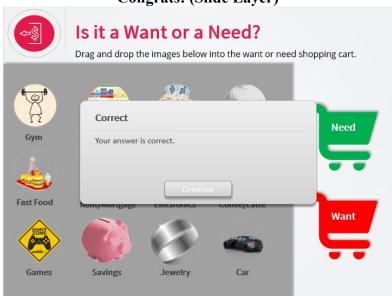
Drag and drop properties		
Return item to start point if dropped outside any drop target		
Snap dropped items to drop target (Snap to center)		

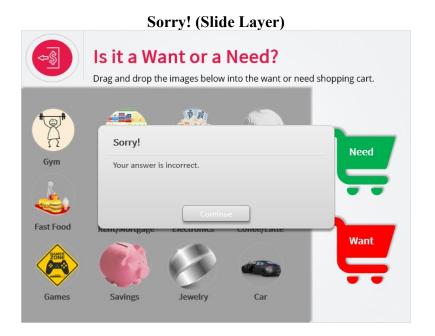
Your answer is correct.

#### Feedback when incorrect:

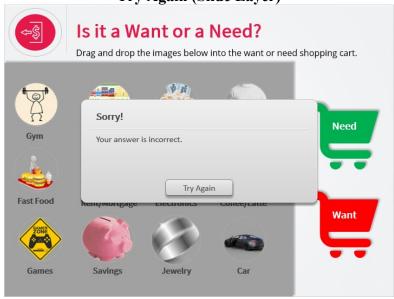
Your answer is incorrect.

# **Congrats! (Slide Layer)**





# Try Again (Slide Layer)



5.16 Is it a Want or a Need? (Drag and Drop, 10 points, 1 attempt permitted)



Drag Item	Drop Target
Car	Want
Groceries	Need
Movies	Want
Clothes	Need
Savings	Need
Rent	Need
Gym	Want
Fast Food	Want
Coffee	Want
Jewelry	Want
Games	Want
Electronics	Want

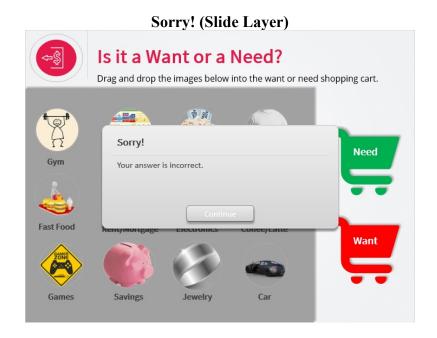
Drag and drop properties		
Return item to start point if dropped outside any drop target		
Snap dropped items to drop target (Snap to center)		

Your answer is correct.

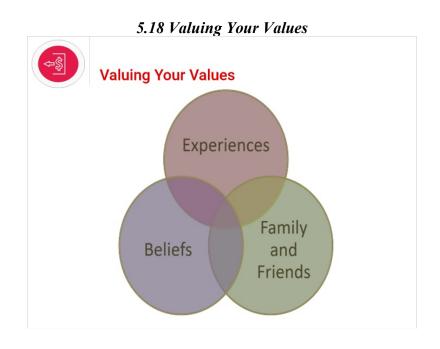
Feedback when incorrect:

Your answer is incorrect.

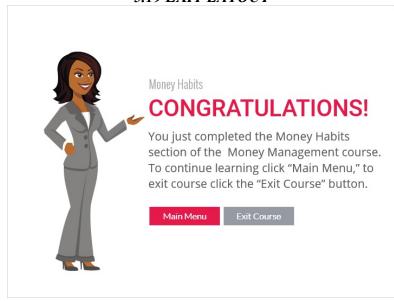




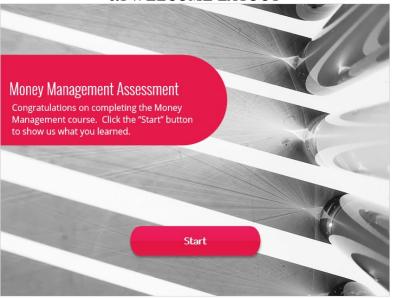




# 5.19 EXIT LAYOUT

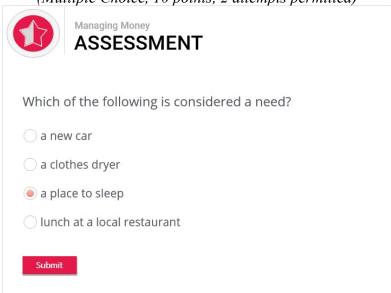


6. Assessment
6.1 WELCOME LAYOUT



### 6.2 MULTIPLE CHOICE QUESTION

(Multiple Choice, 10 points, 2 attempts permitted)



Correct	Choice
	a new car
	a clothes dryer
X	a place to sleep
	lunch at a local restaurant

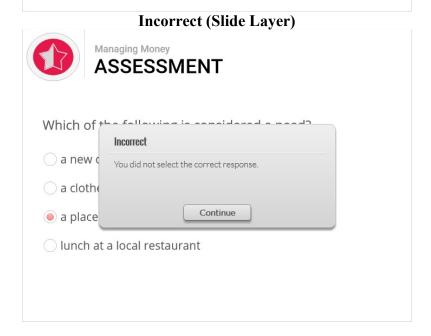
### Feedback when correct:

That's right! You selected the correct response.

### Feedback when incorrect:

You did not select the correct response.

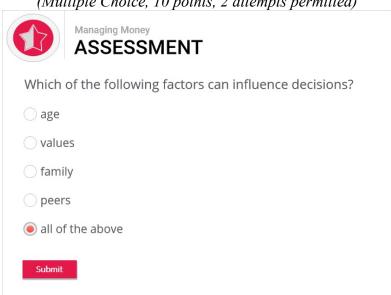
# Managing Money ASSESSMENT Which of the following is considered a panel a new of That's right! You selected the correct response. a clothe a place Continue lunch at a local restaurant



# Try Again (Slide Layer) Managing Money **ASSESSMENT** a new c That is incorrect. Please try again. a clothe Try Again a place lunch at a local restaurant

### **6.3 MULTIPLE CHOICE QUESTION**

(Multiple Choice, 10 points, 2 attempts permitted)



Choice Correct age

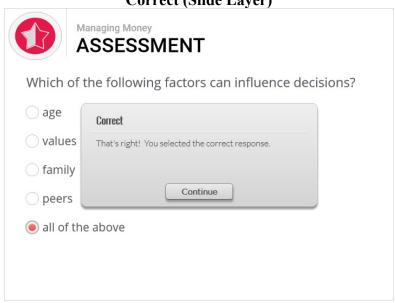
	values	
	family	
	peers	
X	all of the above	

That's right! You selected the correct response.

### Feedback when incorrect:

You did not select the correct response.

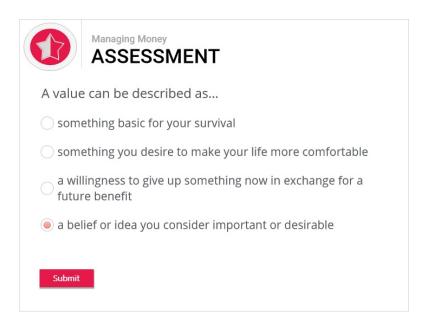
### **Correct (Slide Layer)**



# **Incorrect (Slide Layer)** Managing Money **ASSESSMENT** Which of the following factors can influence decisions? age Incorrect values You did not select the correct response. family Continue peers all of the above **Try Again (Slide Layer)**



### **6.4 MULTIPLE CHOICE QUESTION**



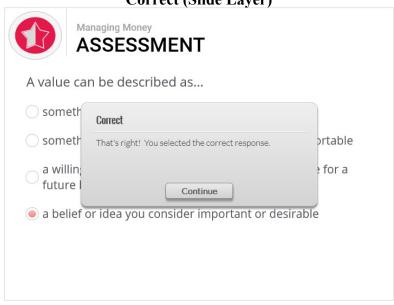
Correct	Choice
	something basic for your survival
	something you desire to make your life more comfortable
	a willingness to give up something now in exchange for a future benefit
X	a belief or idea you consider important or desirable

That's right! You selected the correct response.

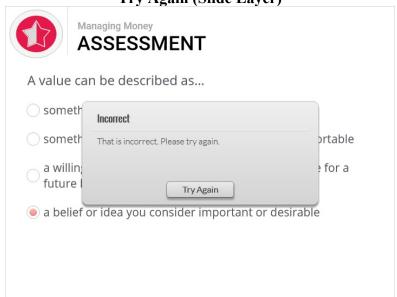
### Feedback when incorrect:

You did not select the correct response.

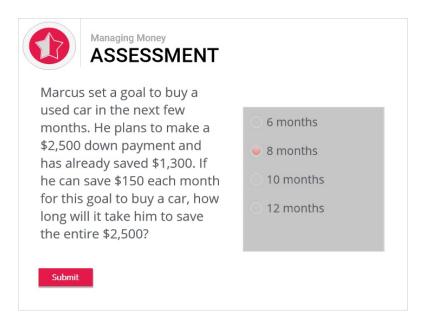
## **Correct (Slide Layer)**







### 6.5 MULTIPLE CHOICE QUESTION



Correct	Choice	
	6 months	
X	8 months	
	10 months	
	12 months	

That's right! You selected the correct response.

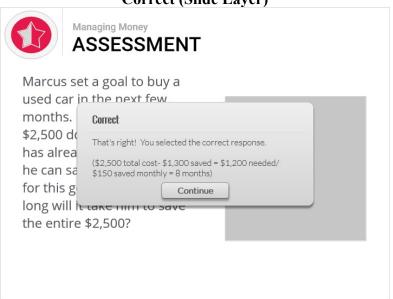
(\$2,500 total cost- \$1,300 saved = \$1,200 needed/\$150 saved monthly = 8 months)

Feedback when incorrect:

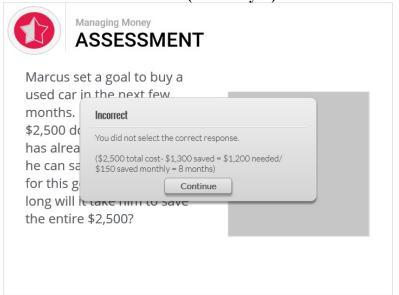
You did not select the correct response.

(\$2,500 total cost- \$1,300 saved = \$1,200 needed/ \$150 saved monthly = 8 months)

### **Correct (Slide Layer)**

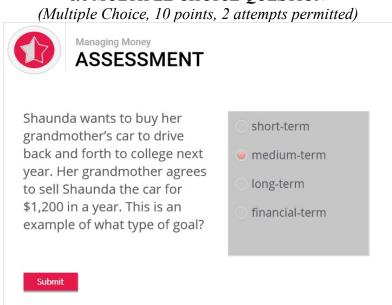


### **Incorrect (Slide Layer)**



# Managing Money ASSESSMENT Marcus set a goal to buy a used car in the next few months. \$2,500 do has alrea he can sa for this g long will be take mini to save the entire \$2,500?

## 6.6 MULTIPLE CHOICE QUESTION



Correct	Choice	
	short-term	
X	medium-term	
	long-term	
	financial-term	

That's right! You selected the correct response.

(three months to a year)

### Feedback when incorrect:

You did not select the correct response.

(three months to a year)

Incorrect (Slide Layer)

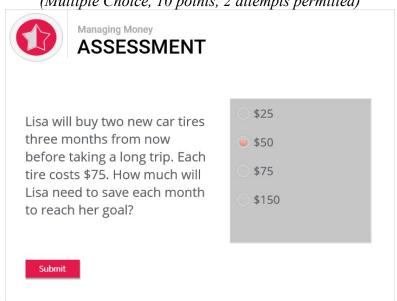
Managing Money
ASSESSMENT

Shaunda grandmo back and year. Her to sell Sh \$1,200 in example of what type of goal?

# Correct (Slide Layer) Managing Money ASSESSMENT Shaunda grandmo back and year. Her to sell Shash, \$1,200 in example of what type of goal?

**Try Again (Slide Layer)** Managing Money **ASSESSMENT** Shaunda y grandmo Incorrect back and That is incorrect. Please try again. year. Her to sell Sha Try Again \$1,200 in example of what type of goal?

### **6.7 MULTIPLE CHOICE QUESTION**



Correct	Choice	
	\$25	
X	\$50	
	\$75	
	\$150	

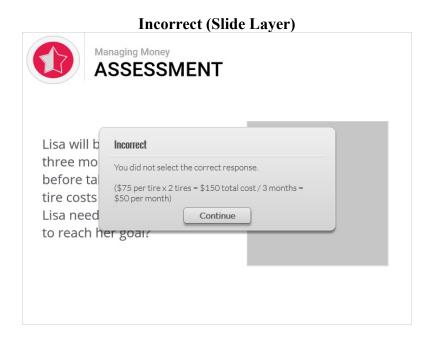
That's right! You selected the correct response.

(\$75 per tire x 2 tires = \$150 total cost / 3 months = \$50 per month)

Feedback when incorrect:

You did not select the correct response.

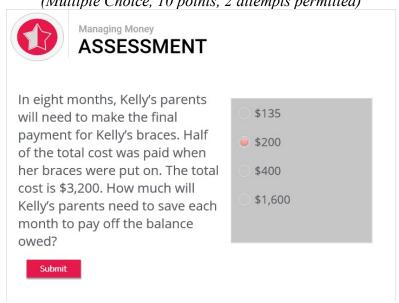
(\$75 per tire x 2 tires = \$150 total cost / 3 months = \$50 per month)





**Try Again (Slide Layer)** Managing Money **ASSESSMENT** Lisa will b Incorrect three mo That is incorrect. Please try again. before tal tire costs Lisa need Try Again to reach her goar?

## 6.8 MULTIPLE CHOICE QUESTION



Correct	Choice	
	\$135	
X	\$200	
	\$400	
	\$1,600	

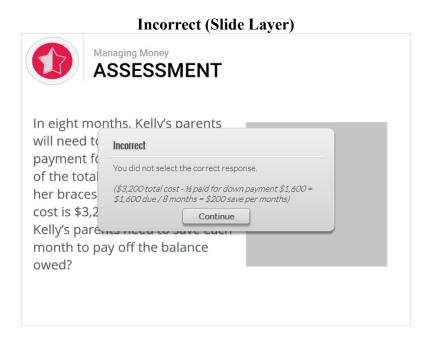
That's right! You selected the correct response.

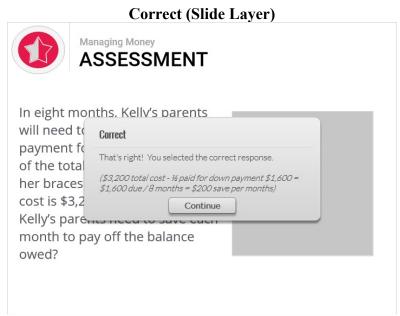
( $\$3,200 \text{ total cost} - \frac{1}{2} \text{ paid for down payment } \$1,600 = \$1,600 \text{ due } / 8 \text{ months} = \$200 \text{ save per months}$ 

### Feedback when incorrect:

You did not select the correct response.

(\$3,200 total cost -  $\frac{1}{2}$  paid for down payment \$1,600 = \$1,600 due / 8 months = \$200 save per months)





# Managing Money ASSESSMENT In eight months. Kelly's parents will need to payment for of the total her braces cost is \$3,2 Kelly's parents need to save each month to pay off the balance owed?

## 6.9 MULTIPLE CHOICE QUESTION

(Multiple Choice, 10 points, 2 attempts permitted) Managing Money ASSESSMENT Mark wants to visit his foreign exchange "brother" who lives in \$150 Brazil. He'd like to make the trip 18 \$167 months from now, right after graduation. Mark estimates that he \$225 will need \$3,000 total to pay for transportation, food, and other \$2,700 expenses. He has already saved \$300. How much will Mark need to save each month to reach his goal? Submit

Correct	Choice	
X	\$150	
	\$167	
	\$225	
	\$2,700	

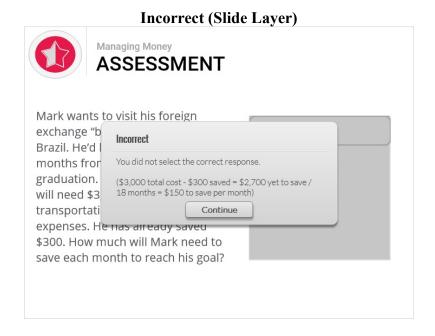
That's right! You selected the correct response.

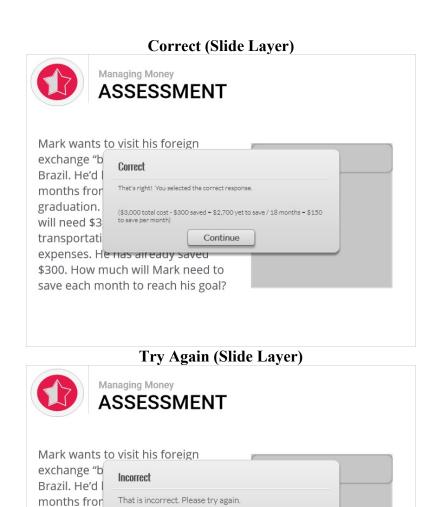
(\$3,000 total cost - \$300 saved = \$2,700 yet to save / 18 months = \$150 to save per month)

### Feedback when incorrect:

You did not select the correct response.

(\$3,000 total cost - \$300 saved = \$2,700 yet to save / 18 months = \$150 to save per month)





6.10 Matching Drag-and-Drop (Drag and Drop, 5 points, 2 attempts permitted)

Try Again

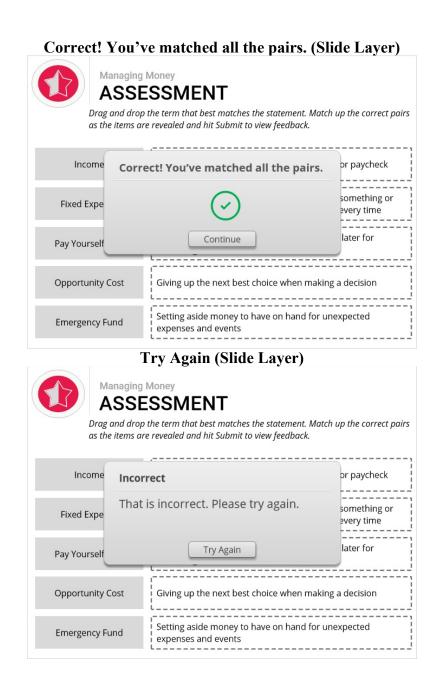
graduation. will need \$3 transportati

expenses. He has already saved \$300. How much will Mark need to save each month to reach his goal?

Drag and drop	Money ESSMENT  the term that best matches the statement. Match up the correct pairs revealed and hit Submit to view feedback.
Income	Any money you receive such as an allowance or paycheck
Fixed Expense	A predictable amount of money spent to buy something or do something that is the exact same amount every time
Pay Yourself First	Saving a certain amount of money to be used later for financial goals
Opportunity Cost	Giving up the next best choice when making a decision
Emergency Fund	Setting aside money to have on hand for unexpected expenses and events

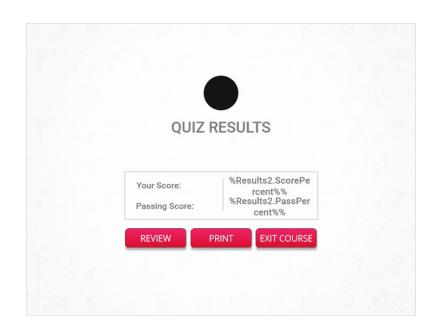
Drag Item	Drop Target
Income	Any money you receive such as an
	allowance or paycheck
Fixed Expense	A predictable amount of money spent to
	buy something or do something that is the
	exact same amount every time
Pay Yourself First	Saving a certain amount of money to be
	used later for financial goals
Emergency Fund	Setting aside money to have on hand for
	unexpected expenses and events
Opportunity Cost	Giving up the next best choice when
	making a decision

Drag and drop properties
Return item to start point if dropped outside the correct drop target
Reveal drag items one at a time
Snap dropped items to drop target (Snap to center)
Allow only one item in each drop target
Delay item drop states until interaction is submitted



6.11 QUIZ RESULTS

(Results Slide, 0 points, 1 attempt permitted)



Results for
6.2 MULTIPLE CHOICE QUESTION
6.3 MULTIPLE CHOICE QUESTION
6.4 MULTIPLE CHOICE QUESTION
6.5 MULTIPLE CHOICE QUESTION
6.6 MULTIPLE CHOICE QUESTION
6.7 MULTIPLE CHOICE QUESTION
6.8 MULTIPLE CHOICE QUESTION
6.9 MULTIPLE CHOICE QUESTION
6.10 Matching Drag-and-Drop

Result slide properties
Passing
Score

80%

