

**The Effects of Branching Videos on Consumer's Real Estate Lending Transaction Decisions**

Thuvan Pham

James Madison University

Dr. Cheryl Beverly

April 2, 2021

**Abstract**

This study seeks to provide consumers in the Real Estate Lending market with training to aid in the homebuying process to mitigate regulatory issues, lack of understanding in the Real Estate Lending process, and to prepare them for the significant monetary obligation. This study provides an inclusive branching video that will incorporate trial-and-error methodologies to allow Real Estate Lending consumers with a safe environment to fail. The population sample consisted of James Madison University graduates to include homeowners and non-homeowners in order to gain an accurate understanding of knowledge base and whether the branching videos would make a difference in their future financial decisions, especially in the Real Estate Lending process.

*Keywords:* Consumer Education, Financial Education, Financial Lending, Interactive Videos, Branching Video, Branching Story, Experiential Learning.

## Table of Contents

<b>Chapter 1 .....</b>	<b>5</b>
Introduction.....	5
Background of the Research.....	7
Statement of the Problem.....	7
Significance .....	8
Research Question(s)/Hypothesis .....	9
Conceptual Framework.....	10
<b>Chapter 2 .....</b>	<b>12</b>
Literature Review .....	12
Constructivism.....	13
Motivational Learning Theory.....	14
Consumer Education.....	14
Educational Videos.....	18
Storytelling .....	20
Experiential Learning .....	23
Research Gap .....	24
Significance of Research .....	25
<b>Chapter 3 .....</b>	<b>26</b>
Research Design .....	26
Context of Research and Description of Sample Participants .....	27
Instrumentation and Tools .....	28
Vyond Animation Software Tool .....	28
YouTube .....	28
QuestionPro .....	29
Timeline of Research.....	29
Methodology.....	29
Data Collection .....	31
Data Analysis.....	32
Security of Information & Privacy .....	33
Validity, Reliability, & Limitations of Research.....	33
<b>Chapter 4.....</b>	<b>35</b>

Analysis of Questionnaires .....	36
<i>Figure 1</i> .....	36
<i>Figure 2</i> .....	37
<i>Figure 3</i> .....	38
<i>Figure 4</i> .....	39
Discussion of Findings .....	42
Reliability and Limitations .....	43
Conclusions.....	44
<b>Chapter 5 .....</b>	<b>45</b>
Final Reflections.....	45
Recommendations and Implications.....	48
<b>References.....</b>	<b>50</b>
Appendix A.....	53
Appendix B.....	58
Appendix C.....	60
Appendix D.....	61
Appendix E.....	63
Appendix F.....	70
Appendix G.....	72
Appendix H.....	76

## Chapter 1

### Introduction

I am an employee of the largest credit union in the world, where I have worked in Real Estate Lending for over five years. For the past two and a half years, I have held the position as a Senior Instructional Designer in the Real Estate Lending Training Department. Prior to my role as an Instructional Designer, I was a Mortgage Processor, working with our members and their mortgage applications. As an Instructional Designer, I design educational material for all of the Real Estate Lending department such as instructor-led training, job aids, eLearning, and professional development training. I am also a master's student at James Madison University, pursuing a degree in Educational Technology.

When thinking of consumerism and consumer education, Real Estate Lending is generally not the first topic that comes to mind. However, Real Estate Lending is a noteworthy topic due to the significant monetary obligation that occur during the lending process. Chances are, buying a home will be the largest transaction that an individual or couple will make in their lifetime, therefore, receiving sufficient education to prepare them for this commitment is paramount.

The average person purchases around five homes in their lifetime. That is not a great number of real estate transactions that an individual goes through in a lifetime. Therefore, unless you work in the industry, it can be considered a foreign concept and process to most people. In this regard, most financial institutions are required to provide a number of educational materials that inform the consumer on the proper steps to homebuying. The available training, however, is provided to the "average" consumer. With this in mind, the training material will be very simplified and designed to provide a high-level overview of the process. I sought to create a more guided experience to help inform consumers of the homebuying process and help them safeguard for their financial future.

I chose this research topic due to the nature of my job and how I've realized over time that simply explaining to the consumer what they must do does not give them the knowledge of why they are doing it. This means that the consumer can be deceived during the homebuying process by committing to large monetary purchases that are not in their best interest. I believe that with better consumer lending

education, especially for new homebuyers, we will have more educated and responsible homebuyers. This research may be able to help my employer in providing the best guidance for our customer base.

“Financial education is becoming increasingly important for individual’s financial well-being, even more in emerging economies where the financially educated consumers can adapt more easily to the variety of financial services offered by a growing bank market” (Botis, 2017, p. 292).

As an Instructional Designer for Real Estate Lending, I noticed that there are many educational materials available for the lending institution to ensure their employees can complete the mortgage process according to government regulations but limited resources available to educate consumers for these large purchases. For many individuals, this is their first home. There are also many different resources on investments and savings for one’s future, however, the available resources are not available together nor does it seem the material works together to form a cohesive experience. Armed with this knowledge, I was interested in creating a unique training experience for consumer education, with a focus on Real Estate Lending and an added interest of helping consumers futureproof for potential economic downfalls. This topic is more important now in the year 2020 than ever before as our nation finds itself in the midst of a pandemic, with many of our friends and families unemployed and unable to pay their mortgage.

As a part of my master’s program, I attended a class on Advanced Video and Audio production, which started my interest on the integrative video experience. One form of video that we explored was Branching Videos, which studied the storytelling experience in a different manner and allowed viewers the ability to choose the path they were interested in. This opened an area of opportunity for this research to create a branched timeline experience for consumers in the Real Estate Lending market. Each significant point of the Real Estate Lending process can be expressed as timeline milestones in a Branching Video; which may prove to be an effective training to guide the learners on the major parts of the Real Estate Lending process and help them understand regulations on the way.

An additional area that I was interested in to explore is to pair Branching Videos with experiential learning, specifically using the trial-and-error method. I was interested in the idea of providing a fail-safe

environment for consumers who are interested in homebuying. By exploring Branching Videos combined with trial-and-error methods, it would help me determine the effects the Branching Videos have on decision making in financial and Real Estate Lending transactions.

The purpose of this research is to provide homeowners with more effective education on the process of buying a home so that they are not committing more than they can afford and understanding why there are regulations to protect them and their money. The more informed the buyer is in the process, the more educated decisions they can make regarding a major purchase. Using branching videos, I hope to provide a better learning base for the consumers because their decisions directly impacts the outcome. The branching videos will provide a safe trial-and-error environment in which the consumers will be able to make costly mistakes that will be a learning experience while not directly affecting them financially in real life.

### **Background of the Research**

The researcher intends to correct a current issue within the traditional lending environment. The researcher seeks to innovate a new learning method of trial-and-error within a branching video to provide the consumer with a safe environment to make potentially costly mistakes during the homebuying process. Currently, the learning material available for consumers consist of web-based storytelling, videos, and or reading material. The branching video will allow for a level of interaction with not just the nuance of homebuying but also common errors that consumers make when buying their homes that can lead to losing their contracts. These are tools that the learners would not have had before.

### **Statement of the Problem**

The mortgage process for new homebuyers is a difficult and long journey with a significant longstanding commitment. Not all homebuyers are familiar with the process it takes to purchase their home and the long-term commitment they are making. There is no educational material available to assist the consumer in fully understanding the process. This researcher seeks to create a trial-and-error branching video to assist with the lack of available educational material to help the consumer make informed choices during the mortgage process.

**Significance**

The process of obtaining a mortgage for a real estate property can be long and arduous and this is a process all consumers who wish to own a real estate property must endure. This is a very relevant subject as the majority of people will go through the process of home buying at least once in their lifetime. The training material available to current homebuyers is minimal therefore, having training material that will assist the consumer in becoming more informed in the mortgage process is very important.

A possible solution to the existing state of the Real Estate Lending market, other than providing training material to inform the consumer, is for the mortgage process to be more transparent. This requires financial institutions to follow all regulatory guidelines and inform the consumers of every decision-making opportunity. Due to each individual financial institution having separate mortgage processes, this is not a realistic solution.

Every consumer who has a desire to purchase a home in their lifetime will benefit from the results of this research because it will allow consumers to become more informed in the mortgage process and the steps it takes to own a home. The consumer will benefit from gaining better educational material that provides a safe environment to have a trail-and-error training through branching videos. The training will inform consumers of lending best practices, governmental regulations that protects that consumer, as well as proper steps required to ensure they are purchasing the best real estate property that best fits their financial situation.

In the year 2020, this research topic has become more relevant due to the global pandemic affecting a majority of homeowners. Many homeowners who lost their jobs and livelihood during the pandemic have recently applied for forbearance. If the pandemic proceeds into the year 2021, we will see many of these forbearances evolve into foreclosures which will be devastating to the economy. With the proper consumer education on affordability, savings, investments, and futureproofing, many of the individuals who are currently in forbearance may have avoided their current situation.



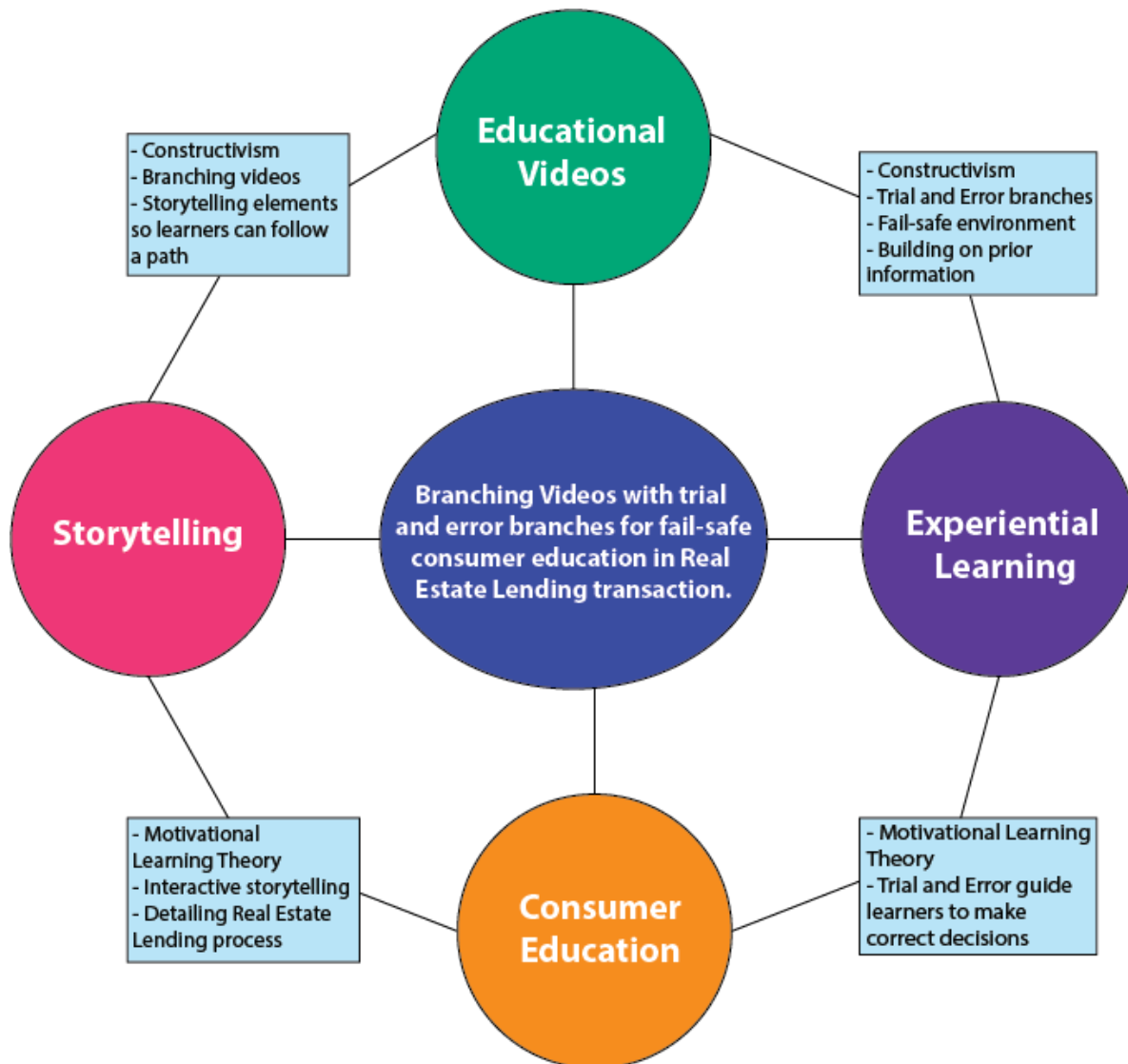
This research contributed to the overall understanding of the mortgage process and ensure financial companies do not breach government regulations that protects the consumers during the mortgage process. This research also allowed for financial institutions to develop better educational material for their consumers to utilize as the regulations change. The financial institutions also benefit from more informed consumers and allows the financial institutions to better utilize their staff for more streamlined mortgage processes. The findings assisted the researcher in creating a branching video that was used for consumer education, specifically in real estate lending.

### **Research Question(s)/Hypothesis**

1. How does Branching Video training for the average consumer on the Real Estate Lending process affect the consumer's decisions in a Real Estate Lending transaction?
2. What impact does trial-and-error choices embedded in Branching Videos have on the average consumer's Real Estate Lending transactions decisions?
  - a. What kind of financial decisions does the learner make before entering into a Real Estate Lending transaction?
  - b. What kind of financial decisions does the learner make after completing the Branching Video training on the Real Estate Lending process?

Purchasing a home is not an everyday occurrence for everyone and with a constantly changing process, it makes the process basically foreign each time the individual has to go through the application. In order to mitigate this issue, financial institutions strive to utilize educational material to educate each borrower, however, it is unclear whether their educational material is effective. Using branching videos with experiential learning to educate future and current consumers interested in buying a home will assist them in making decisions that best fit their needs to ensure they're not making choices that will keep them from completing a mortgage transaction. This training also hopes to help consumers gain financial understanding and help them future proof in times of economic downfall. The idea would be to help consumers buy homes within their financial capabilities in order for them to prepare for any drastic changes in their finances.

### Conceptual Framework



The basis of this study involves using the general understanding of storytelling in the form of branches to create a branching video that would allow for trial-and-error learning to educate Consumers in Real Estate Lending. The branching video would allow for the Consumers to make selections based on the story to ensure they are making the correct choices when making decisions on large monetary purchases. The hypothesis of this conceptual framework is that using branching videos will create a safe environment for Consumers to learn the results of specific actions that they take in regard to the home buying process and save them from potential monetary loss. The researcher believes that branching video

could help Consumers in Real Estate Lending learn and avoid potential common issues and delays in their home buying process.

## Chapter 2

### Literature Review

For the purpose of this study, the researcher completed a systematic review of professional literature involving the use of branching videos in consumer education in Real Estate Lending. Due to the specificity of the research question, there was limited research available on the use of branching videos for consumer education in Real Estate lending, which led the researcher to review studies that correlated with the use of branching stories or narratives in learning courses, interactive videos, interactive games, “choose your own adventure” interactive storytelling, and other digital tools. The researcher also searched specifically for experiential learning research on consumer education in Real Estate Lending with no specific results. Instead, the researcher focused on the use of experiential learning and its effects on the learner behavior in general. The researcher compared the different forms of branching stories in these learning tools for commonalities that would assist with the understanding and use of branching videos in consumer education. Although there is limited research on branching videos specifically, there is a need to have functional educational material for new and prior consumers who want to invest in real estate. It is pertinent to establish educational material that would assist consumers in their process. With the combination of this research, the researcher hoped to establish the benefits of branching videos and experiential learning methods in consumer education.

The researcher used Business Source Complete, Education Research Complete, Art Abstract, Google Scholar and Google databases as well as the articles themselves to search for research relevant to the topic. The filters used were Scholarly (Peer Reviewed) Journals, years between 2010-2020, English, and full text available. The search phrases in the databases used were consumer education in Real Estate Lending, branching stories as a learning method, interactive videos for learning, branching videos, choose your own adventure, and experiential learning. The search phrases used by the researcher during the inquiries were: consumer education, financial education, financial lending, COVID-19, global pandemic, economic impact, interactive videos, branching video, branching story, branching narratives, storytelling, experiential learning, and trial-and-error learning.

There is little relevant literature on the use of branching narratives but no relevant literature on branching videos in the learning environment. The researcher was unable to find relevant literature in regard to the use of branching videos in consumer education. There is much literature available that details the 2008-2009 financial collapse which was a direct result of predatory lending. This brought on the multitude of regulations that passed to safeguard the consumer and their right to information, however, consumers are generally not aware of these regulations. The researcher seeks to include regulatory compliance within the training to ensure the consumer understands their protection rights.

In light of the 2020 pandemic, the researcher explored the research databases and found some relevant studies for the current economic situation. The current events will impact the study as this is directly related to the topic the researcher is trying to solve.

### **Constructivism**

Spector (2016) stated that “Constructivism is a naturalistic epistemological perspective that describes how it is that people come to know and understand the world” (p. 78). Constructivism is building understanding through prior knowledge and is “the sense that the internal representations constructed by a person typically build on prior internal constructions, as knowledge and experience considered together are cumulative” (p. 78).

The researcher believed that with the understanding of Constructivism, branching videos and the experiential learning method will build consumers' knowledge through experiences. The experience "focuses on knowledge construction based on the learner's previous experience" (Koohang et al., 2009, p. 91). This construction of knowledge was during the branching video process that allows the consumer to choose their path. The branching videos helped them by showing them what will happen if they choose a specific path. The branching then required them to make a different decision if they chose the decision that will lead them to a denied loan which means they will not be able to buy or refinance their home. The experience helped them understand what they should and should not do during the loan process. The branching video allowed them to actively learn the material and build on their understanding instead of receiving passive information from traditional teaching (Koohang et al., 2009). The approach to the

branching video is “that knowledge construction by the learner can be formed from both their existing knowledge and their social interaction process with their surrounding environment” (Mohammed & Kinyo, 2020, p. 92).

### **Motivational Learning Theory**

Motivational Learning Theory uses a non-cognitive factor in learning: “Motivation – the interest and willingness of a learner to commit time and effort to achieving desired outcomes” (Spector, 2016, p. 31). There have been many different perspectives on the theory of motivation in learning. The researcher focused specifically on the intrinsic and extrinsic motivation of individuals. This research relied on the extrinsic motivation of the individual to achieve their desired goal. “Students are often motivated to engage in an activity because it is instrumental to some outcomes separated from the activity itself, which indicates extrinsic motivation. An example of extrinsic motivation is a student who reads a history book for the exam in order to get good grades” (Park, S. W., 2018, p. 153). Extrinsic motivation is what drives people to take specific actions to achieve an end goal. The motivation to obtain a home is the motivation the researcher determined will drive the consumer’s desire to take the branching video training.

The use of motivation will help the learner retain information due to the drive to obtain their home. The learner will be motivated to acquire the loan to purchase or refinance their home if they complete the branching video’s correct steps. “Extrinsic motivation can represent *inner* sources of an action and result in high-quality learning behaviors” (Park, 2018, p. 153). The learner will be motivated because the branching video will help them reach their ultimate goal, leading to higher learning retention when they feel driven.

### **Consumer Education**

Consumer education is a highly researched topic that still has many unknowns. In much of the literature, the focus is on general consumerism and financial education on the individual’s particular need. There was some literature available that pinpointed the need for providing financial education in Real Estate Lending to the general public due to the economic downturn in 2008. Davies (2010) confirmed with this statement that “consumers need information but also need education for gaining the greatest

benefit from the market, for controlling their finances and for making rational choices in their consumption” (p. 10). When the consumer understands the importance of their choices, it makes for better informed decisions, especially in a large purchase such as a real estate property. The researcher noticed based on the research, consumer education in financial management is an important step for the consumer in order to obtain the necessary knowledge needed to make the informed savings and purchase decision. “Consumer education aims to encourage individuals to analyze and make value-based decisions at a personal level in terms of needs and wants” (Davies, 2010, p. 10). Based on the article, securing proper savings allows for the consumer to make the larger purchases such as the purchase of a real estate property. With value-based decisions, the consumer would be able to plan for the future to keep them from financial issues like individuals who experienced economic downfall in the market crash of 2008-2009.

With the known 2008 market crash and what should have been a lesson learned, comes the unexpected Global Pandemic of 2020. The novel Coronavirus-19 (COVID-19) caused many issues with our economies and many people found themselves unemployed and in a similar position as those in the 2008 market crash. “Reduced employment is mostly credited to the various containment measures taken by several governments like lockdowns within domestic borders including factory closures, shutting-off international borders, restricting exports to fulfill the domestic needs, which further worsen the problem by the means that for people not working, it means that they are not getting paid which puts an additional dampen on their demand, which means less productions, and more people will be forced to leave the labor market” (Rangan & Chakraborty, 2020, p. 14). There were governmental assistance, loans and loan forbearance but many found themselves in an unfortunate position as the assistance is exhausted.

Aside from consumer education providing benefits to the consumer on large purchases, it was noted that “rapid changes and potential risks in consumption make it essential for the consumer to consider the consequences of their consumption” (Davies, 2010, p. 10). Based on Davies’ research, the researcher concluded that with the growing social, economic and technical developments, education on consumption is important due to the risk impact it may have on not just the individual, but on society as

well. Individuals who do not consider their consequences can borrow and use more money than they can afford and in turn pose a significant burden to the economy by defaulting on their debt. “The dizzying array of available products coupled with technologically enhanced market innovation dictate a need for increasing student awareness, skill, and knowledge for making informed decisions as consumers” (Moore, Sumrall, Mott, Mitchell & Theobald, 2015, pg. 193). Therefore, consumer education is hugely beneficial to all individuals, but even more pertinent now due to COVID-19.

According to Botis (2017), “financial education is becoming increasingly important for individual’s financial well-being” (pg. 292). Botis speaks on the influence of financial education to banking behavior. This impact is a big deal, not just to an established economy but also within a growing and changing banking economy. Botis also notes that “the term financial education is different from the notion of financial literacy, which is focused on understanding and general knowledge, and also from the financial ability which covers, besides the cognitive views, the behavior, decisions and practical skills” (pg. 293). With this in mind, financial education is considered to be complex and extensive therefore, it is important to provide to the people proper financial education in order to produce well-informed customers that can make responsible decisions with a risk mindset to evaluate their individual situations.

The economic crisis of 2008 was a result of “over investment and speculation in real estate” (Volpe & Mumaw, 2010, pg. 62). The literature indicated that due to real estate value speculations, it led home buyers to believe that buying homes will lead to an increase in wealth in the future because the assumption was that the homes would increase in value over time, however, this situation was the opposite where homes were overinflated in value. One other driving factor that led to the economic downturn was the idea that “home ownership has always been viewed as producing desired social outcomes” (Volpe & Mumaw, 2010, pg. 63). It is the desire of achieving societal expectations that led home owners to borrow outside of what they are able to afford. “America’s obsession with Real Estate led individuals into mortgage contracts that were not in their best interests” (Volpe & Mumaw, 2010, pg. 64). The research indicated that based on these reasons, there is a significant need for financial education to the public. “The boom-bust cycle once again illustrates the importance for consumers to understand the



basics of personal finance” (Volpe & Mumaw, 2010, pg. 66). There were many people affected by the economic downturn and this was due to “the numerous financial decisions (banking and investments, services, mortgages, auto loans, credit cards, etc.) individuals must make throughout a lifetime and the vast array of products and services offered by the financial services industry, it is apparent that individuals often enter into financial transactions that are not in their best economic interest” (Volpe & Mumaw, 2010, pg. 68). From the research shown, if consumers were better able to understand the significant impact their financial decisions would make on their own lives and the economy, consumers would be able to make a decision best suited for their situation.

Research showed that during the housing bubble of 2008, it was paramount for government intervention that required stricter mortgage policies and oversight of mortgage lenders along with providing education for consumers to ensure they are able to abide by their financial commitment (Agarwal, Amromin, Ben-David, Chomsisengphet, and Evanoff, 2010). “This experience prompted calls for increased government intervention in mortgage markets. The ensuing policy discussion has centered on two key (and not mutually exclusive) approaches; (i) tighter oversight of mortgage lenders and products, and (ii) concerted efforts to educate prospective homebuyers to ensure sustainability of their financial commitments” (Agarwal, Amromin, Ben-David, Chomsisengphet, and Evanoff, 2010, pg. 495). It was also noted in the literature that “the importance of the latter approach has been buoyed by a growing body of research that showed gross inadequacies in financial literacy and the consequential nature of resulting mistakes” (pg. 495). In their research, Agarwal, Amromin, Ben-David, Chomsisengphet, and Evanoff (2010) studied individuals who voluntarily subscribed to a two-year counseling program that taught them about credit, savings, and financial literacy. For them to be considered as passing the program, individuals must successfully “acquire budgeting and credit-management skills” (pg. 499).

Although the COVID-19 situation is vastly different from the 2008 market crash, it is similar in that providing consumer education can help lessen the impact of such threats if individuals were potentially prepared for issues by having built buffers into their finances. As stated, if consumers are able

to understand the impact of these situations, their financial decisions can help them protect against potential economic issues in the future.

Due to the researcher being an individual working in the Real Estate Lending industry, the researcher observed that there is a big issue in Real Estate Lending in particular because of the risk it poses when an individual settles on a short sale home or foreclosure which impacts financial institutions who may have to evaluate and change their lending guidelines in order to protect from defaults. Therefore, providing education to consumers on Real Estate Lending and the home buying process can be beneficial to all individuals who are contemplating on purchasing a home. Moore, Sumrall, Mott, Mitchell, and Theobald (2010) stated that “educators have espoused the need for teaching consumer literacy, thus increasing student discernment of product quality, personal finance, and financial attitudes” (pg. 193). The researcher has also observed in 2020 with COVID-19 that the researcher’s employer is further evaluating the issues with lending where the global pandemic is causing an influx of forbearance which is a burden on the banks itself. This leads to banks having to re-purchase loans from investors and having to pull money from the bank’s reserves. Once government assistance is exhausted, this could lead to many people losing their homes.

The literature reviewed noted a major concern in regard to the financial literacy of the nation which indicated a serious need to improve the financial education provided to the public, especially in the Real Estate Lending area to prevent a repeat of the 2007-2009 economic crisis. This research is pertinent to ensure that training is available for individuals who need it. This is relevant to all individuals who have a desire to own Real Estate property and will create better informed home buyers prepared for potential future financial issues.

### **Educational Videos**

Educational Videos are films or movies with the intended purpose of providing educational content. Audio-visual media has long been popular but “From the 1920s on, film has been used for educational purposes” (Wijnker et al., 2019, p. 3176). Educational videos have been used for many decades and by many different organizations but many still question whether it is a good medium for

learning. “Yet, after 100 years of teaching with this medium, the question of what makes a good educational video still remains largely unanswered” (p. 3176). Educational videos can come in many different forms. As stated by Wijnker et al., videos range from knowledge clips using small, short spurts of video containing educational information, how-to-videos showing the learner the steps to completing specific tasks, and documentaries or fiction films that may dramatize specific topics. Due to the versatility of educational videos which can be provided in many different forms, this makes educational videos an ideal method of training delivery.

This research will focus specifically on interactive videos, which is a form of video that allows the user to follow a path and make specific choices. Interactive videos are often compared to e-Learning trainings and video games. The difference with e-Learnings, as opposed to interactive videos, is that it provides a linear training that allows individual learners to follow a specified path (Rajabalee et al., 2020). It lends to the nature of interactivity by allowing the learners the opportunity to interact with the learning material, however, there is a specific beginning and end in e-Learnings. The researcher related e-Learnings to this research to understand its purpose compared to interactive videos. Companies often use e-Learnings as a popular method of providing training, so it is beneficial to understand e-Learnings to determine the benefits of providing interactive videos to consumer learners as a quicker and more effective training method. Arvanitis (2009) sought to explore the use of e-Learning “to promote a company’s brand and services by affecting crucial factors like customer’s trust and loyalty” (p. E70). Although this research is not directly related to consumer education for real estate lending, it provided the researcher with a view of other methods of education that is provided to the consumer to help them make better informed decisions. There are many benefits to integrating training and educational videos into a financial institution’s marketing endeavors. The training videos can “teach clients how to navigate through the client portal or how to read their quarterly statements” (Luke, 2013, p. 19) and can directly translate to videos that will show the consumer how to complete specific tasks in home buying to ensure a painless transaction. This type of training video in marketing would only incur a one-time production cost which would essentially save the company money (Luke, 2013). Videos would be the preferred method

for many major companies because they would only incur the initial cost of producing the video and would only have additional costs if updates to the information is needed. There are many benefits to using educational videos as opposed to other training modalities.

Speaking again to the versatility of audio-visual media as a training platform, the search keyword for interactive video provided a multitude of available research and is a known modality in learning. From the literature explored, many big motion picture companies such as Netflix (2018) and 20<sup>th</sup> Century Fox (now under the Disney umbrella) as well as media and content sharing websites like YouTube have started to include interactive experiences in the videos or services they provide (Wilson, 2020). The researcher believes interactive videos will allow for the necessary branching and interaction needed to make a successful training for consumers. The branching will be integrated into the video using the interactive features allowing the Consumers to interact with the content that can affect the outcome of the learning material. This would assist the Consumers in learning how to make the right decisions during their home purchase transactions.

### **Storytelling**

The researcher was not able to find any direct research related to storytelling or branching narratives for consumer education and especially not in Real Estate Lending. There is, however, a lot of research on storytelling and using it for learner retention by engaging the learner with the prospect of a journey. “Our stories often adhere to emotionally charged events that often tie interpretation of the present situation to the past” (Brendel and Chou, 2016, p. 15). Using storytelling in training can help the learners identify with the experience to something that may have occurred to them or may occur to them. Experience increases learner retention as stories that incites emotion will be easier to remember and recite. Learning from storytelling will allow for the learner to ensure they do not have the same experience if it the story was surrounded by a negative feeling.

Storytelling is often popular in video games. It is a big reason some video games are so popular to the general public because the story from the game can be recited quickly once the learner was drawn into the tale weaved by the video game. Dubbelman (2011) stated that storytelling in video game is “the

concept of narrative as representation” (p. 158). Using this same logic in videos, televisual media can use this concept to create an experience of storytelling in which the learner does not have to play a game but rather through interactive videos.

There is also research on using branching stories or narratives to support learner retention. “Branching narrative is a writing technique used to develop interactive fiction across a range of platforms, such as gamebooks, digital games and, more recently, televisual media” (Wilson, 2020, p. 119). The use of storytelling is not new but using it as a learning method in interactive videos is still novel. Storytelling by way of branching narratives, or often also referred to as choose your own adventure, “allows the reader to make decisions determining how they navigate through their own adventure, with numerous pathways to choose from and the possibility of multiple endings” (p. 119). Each decision they make has the potential to lead to a different ending which can result in individualistic learning. The use of branching narratives was popular and explored “in the early 1980s owing to the huge popularity of the Choose Your Own Adventure and Fighting Fantasy gamebooks” (p. 119) which shows branching in stories, and potentially videos, would allow for more options of selection and paths to learn from. This would also lead to better learner retention if the branching video can keep the learner’s focus by providing an enjoyable experience. This form of interactive storytelling has long been used in video games but was recently adopted by a big motion picture company, Netflix, and by content sharing sites such as YouTube. “Interactive televisual experiences, such as the Netflix shows *Bandersnatch* (2018) and *Bear Grylls: You vs. Wild* (2019), are also promoting branching narrative to a new audience. YouTube are in the process of developing similar interactive content, while Netflix prepare to follow up their initial successes by exploring a range of genres” (Holt, 2019, as cited in Wilson, 2020, p. 120).

Since the release of *Bandersnatch* and *Bear Grylls: You vs. Wild*, Netflix has continued on to create more interactive content. According to Netflix’s website, they have since created eight additional interactive shows with plans to continue developing more. As quoted on Netflix’s website “Interactive titles are a fun new way to experience Netflix. In each title, you make choices for the characters, shaping the story as you go. Each choice leads to a different adventure, so you can watch again and again, and see

a new story each time.” With this information from Netflix, the researcher was able to determine that allowing the learner the option to have multiple different endings will engage them with a more enjoyable and memorable experience, thereby allowing them to retract if they made a choice that would lead to a negative ending.

Another influence of branching narrative can be found in Alduraby and Liu’s (2014) research which showed the significance of using a PowerPoint branching story to motivate students to learn to read. The research indicated that “the young readers could interact with different options at different turning points of the story, which activated the readers curiosity, and promoted their decision making and thinking skills” (p. 463). This study along with Wilson’s (2020) branching narrative research indicated that branching videos could be a beneficial educational tool to help engage the learners by allowing them to interact with the story to enhance their decision-making skills. There continues to be supporting evidence for branching stories because branching “have different paths that encourage the reader to interact with the plot” (Alduraby and Liu, 2014, p. 466) and allows for the learner to decide for themselves what choices they think is best and leads to separate endings. Alduraby and Liu’s research showed that each learner would have a different outcome and allowing for trial-and-error while learning. The research showed that “the branching story approach interested students and motivated them to read” (Alduraby and Lui, 2014, p. 474). With this research, the researcher speculated that branching narratives would be beneficial in consumer education because the thought of increased chances of homeownership will be the leading motivation factor. The learners may be more inclined to focus on their current financial situation and what would most benefit them when making financial decisions.

Based on the research from Wilson (2020) and Alduraby and Liu (2014), the researcher suspects that using branching narratives in interactive videos will allow for the researcher to create different paths. The paths will either show Consumers that the decisions that they have made were either good or poor. Branching narratives will allow for the Consumer to have a second chance at making the right decision to save them from making a poor choice during the actual Real Estate Lending process which could lead to monetary loss or the potential of not being able to close on their home on time or even at all.

### **Experiential Learning**

Experiential learning is “learning by doing” (Wurdinger & Allison, 2017, p. 15). According to Wurdinger & Allison “learning by doing, is more effective than traditional learning; that is learning by listening” (p. 15). Experiential learning follows the idea of Constructivism by building on the knowledge that one already has through the act of performing a task. Trial-and-error learning are an everyday occurrence and generally difficult to create. As Thyroff (2019) noted “few academics conduct experiential learning, because it is challenging to implement in higher education” (p. 75). From the research, experiential learning is difficult to manage because there is no way to ensure learning by doing is safe in traditional learning environments. However, the researcher believed that implementing experiential learning in an interactive branching video would allow for successful integration due to the low risk that branching videos would pose when people make mistakes. The researcher also believed that the integration of experiential learning in interactive branching videos would be successful because the branching videos will address the same questions and scenarios that occurs during a Real Estate Lending transaction. Kuk and Holst's (2018) stated the following in support of experiential learning:

How experience could be connected with learning has led to diverse approaches in research and practice. Its influence has led not only to facilitating firsthand experience through internship and practicum in curriculums, but also movements toward the accreditation and recognition of prior learning experiences. The accreditation of one's experiences is directly related to recognizing experience itself as knowledge, even if it took place without formal educational interventions (p. 150).

The interactive branching video will provide the correct and incorrect answers for the learner to choose from and the benefit of the interactive branching video would be that it will allow for do-overs, therefore, with experiential learning, the learner learns from their initial mistake and can correctly choose or “do” the right option. This is noted also by Kuk and Holst (2018):

Not all experience is equated with learning. What constitutes experiential learning is the relationship between three main components: experience, reflection based on prior knowledge,

and learned experience as a result. Among the three components, reflection serves as the key in the transition to learned experience. As time flows, current experience may or may not become part of one's store of knowledge. It is only the part of experience that is the object of reflection which acquires further meaning and becomes learned experience; this heightens the possibility for it to become part of one's prior knowledge (p. 151).

The interactive branching video would provide a safe environment for the learner to make mistakes, reflecting on their mistakes, and allowing them to choose the correct answer and learn why it is the correct choice. Thus, this would help with the learner and the potential of retaining the information long-term leading to the researcher's anticipation that this training may help the learners' financial future from learned behaviors.

A driving factor for the researcher to explore experiential learning is that Real Estate transactions are one of the largest consumer purchases and providing educational material that would allow the learners to learn from by doing would allow the consumer to make better informed decision on their large purchase. Interactive branching videos with experiential learning would be able to mimic real life choices which can help the learners feel more engaged in the education that can provide for their financial future. Using the combination of storytelling with branching narratives, interactive video, and experiential learning to create a branching video, the researcher was confident the end training provided to the learners will prove to be beneficial for consumer education in Real Estate Lending.

### **Research Gap**

Researchers have studied the need for Consumer Education over a variety of issues that affects decision making and savings plans. While the findings do show that Consumer Education is important, there is a limited number of peer-reviewed papers on Consumer Education specifically for individuals who will be making large Real Estate purchases. Other gaps include the types of education that can be provided to consumers to ensure they understand the importance of their investments. One gap that needs to be addressed is using Branching Videos as a training modality. While the use of videos in learning has been widely used to quickly and efficiently provide education, there is limited research available for



Branching Videos, specifically in the training environment. There are many research articles showing the use of Branching stories to entice and excite students to want to learn by allowing them to choose their own story path. The researcher believes that studying Branching Videos by understanding its interactive nature as well as providing an Experiential Learning experience will allow for better learning retention and will benefit in consumer understanding of the nature of Real Estate purchases that would benefit them and protect them from predatory lending practices as well as help them plan for future financial situations.

### **Significance of Research**

This research is important as it affects not just people interested in home buying or refinancing their Real Estate property, but it also affects individuals who are not interested in becoming homeowners. As apparent in the literature that examined the market crash of 2008-2009, the economic downfall affected the whole economy and not just individuals who were homeowners.

It is also important in light of the current global pandemic caused by the novel coronavirus of 2019 with many homeowners who have lost their jobs and cannot pay for their mortgage, putting them in forbearance with the possibility of foreclosure and losing their home. This research has the potential to help these individuals understand not just the Real Estate Lending process but also help learners to think and determine good and bad financial decisions. This training can help to lead people to be financially stable and prepare them for anything that may occur in the future.

### Chapter 3

#### Research Design

As a James Madison University (JMU) graduate student in the Master of Educational Technology program, the researcher must successfully complete her applied research as a requirement for graduation. The JMU Educational Technology department considers applied research as the study of real-world problems and issues found in a workplace context. The applied research provides the opportunity for graduates of the program to design and develop solutions using evidence supported by a review of relevant research literature. The chosen topic should be ethical in nature and benefit both the JMU graduate student and the community the research seeks to support. The research proposals require approval from the Institutional Review Board (IRB) prior to implementation. This research must meet the JMU academic program deadline. For the purpose of this study, the research was conducted between January – April 2021.

This mixed method research used an adaptive research design that lent itself to the creation of an interactive branching video with a Real Estate Lending focus. The applied research design sought to answer the following questions:

1. How does Branching Video training for the average consumer on the Real Estate Lending process affect the consumer's decisions in a Real Estate Lending transaction?
2. What impact does trial-and-error choices embedded in Branching Videos have on the average consumer's Real Estate Lending transactions decisions?
  1. What kind of financial decisions does the learner make before entering into a Real Estate Lending transaction?
  2. What kind of financial decisions does the learner make after completing the Branching Video training on the Real Estate Lending process?

The researcher branched the videos at the specified timeframes that are similar to the Real Estate Lending process. The Real Estate Lending process slightly differs from lender to lender, however, government regulations on the lending process remains the same. In order to have more informed borrowers, the

researcher worked to ensure borrowers understand the regulations related to the home buying process for them to protect themselves against potential predatory lending practices.

### **Context of Research and Description of Sample Participants**

This study recruited both homeowners and non-homeowners to participate in the research. The study was designed with the average consumer in mind and was intended for the general population above the age of eighteen (18), the legal age to obtain a credit card. The researcher sought to observe both homeowners and non-homeowners to determine whether the training delivered was effective to help the participants understand the mortgage process and if this would be beneficial during the home buying process. By including homeowners in the population sample, the researcher was able to survey if the information provided from this study would have benefitted them when navigating the process and help alleviate confusion and issues.

The population the researcher used to recruit subjects from are the graduate students at James Madison University. The study was sent to the JMU graduate students' group email to request their participation in this study. The researcher used this sample of individuals because students of the JMU graduate schools are above the legal age to obtain a credit card and many individuals in JMU's graduate schools are working professionals and can potentially be homeowners. The researcher also requested demographic data such as age, gender, and ethnicity as well as whether or not the participant is a homeowner. This helped the researcher to identify potential differences in decision making between different demographics.

According to the JMU admissions website, as of Fall 2020, JMU has 1,946 graduate students, including the researcher. The researcher sent out an email to the JMU graduate students, recruiting their assistance and participation in this research study. The researcher concluded that motivation of understanding the process and the prospect of homeownership will lead the non-homeowners to participate in the study and the motivation to help a fellow graduate student with her research will bring homeowner graduates to complete the study. The researcher also enlisted the help of the Educational Technology Director to send a bulk email to the Educational Technology graduate students. The

researcher assumed that the Educational Technology graduate students would be driven to help the researcher complete her research as a peer of the program.

### **Instrumentation and Tools**

There were two branching video programs that the researcher utilized in order to complete a viable product for the study. The researcher also used a survey and data collection tool in order to gather information from the research participants. Due to the nature of the branching videos, the researcher created the videos and used a system that contained interactive elements with branching capabilities. The two video tools and survey tool that were used in this study are Vyond Animation Software, YouTube, and QuestionPro.

The researcher decided to use animated videos for this research due to the COVID-19 global pandemic at the time of the study. The use of real human subjects was inadvisable due to safety concerns and government social distancing guidelines.

### **Vyond Animation Software Tool**

Vyond is a subscription program used to design easy animated videos using pre-made graphics. It is “a video platform that instructional designers can use to enhance the learning experience” (Talent Development, 2019, p.13). “The tool’s drag-and-drop functionality and customizable templates make creating video content – from MP4s to GIFs – quite simple” (p.13). Vyond is a widely used animation software tool to create animated training videos for businesses. The researcher used Vyond to create short video scenes that are important to each step of the mortgage process. The videos progressed from the beginning to the end of a Real Estate transaction. The decisions of the participants lead to one outcome or the other which allowed the participants to follow along as if they are the ones buying their first home.

### **YouTube**

YouTube is a free online video-sharing platform that recently started a televisual branching narrative initiative. YouTube, along with Netflix (a media services provider) and 20<sup>th</sup> Century Fox (an American film studio now under the Disney umbrella), have been “promoting branching narrative[s] to a new audience” (Wilson, 2020, p.120). According to the YouTube website, they are allowing their content

creators to utilize its built-in hotspot features to create interactivity within the videos themselves. The interactivity is when the creator uses hotspots that may be in the form of flip cards or buttons that leads the viewer to another YouTube video, thus creating the branching effect.

The researcher utilized YouTube for the free streaming platform to store the videos and used their hotspot feature to create interactive elements in the video to create the branching necessary for the research. The hotspot directed the participants from one video to the next thus creating a form of branching videos.

### **QuestionPro**

QuestionPro is an online survey software, often used to administer surveys, questionnaires, and polls. QuestionPro is a versatile survey software that can create many different types of questions. It also has the capability of collecting the data and separating it into different categories, which makes filtering answers for specific analyses easy to manage. The researcher used QuestionPro to administer the pre- and post-training questionnaires. The researcher also used the QuestionPro Analytics to review the data and analyze the answers.

### **Timeline of Research**

Data collection took place between February – March 2021. The researcher completed the JMU Bulk Email Request form (see Appendix A) and provided the form to the JMU Office of the Registrar to release the research recruitment communication to JMU graduate students on February 1, 2021. A follow-up communication email was requested and sent out to the JMU graduate students on February 11, 2021.

### **Methodology**

The researcher conducted a mixed methods research by initiating the study with JMU graduate students using the JMU Bulk Email Request form (see Appendix A). The email was sent by the Office of the Registrar to the researcher's specified population. The researcher indicated in the Bulk Email form the constraints for selection of research subjects and attached the email content, branching video link, and questionnaire links. The researcher ensured the participants are fully aware of their rights as a voluntary participant of this research by providing all subjects with a copy of the privacy information notice and a

link to the online consent form (see Appendix B) to participate in the research study. The consent form, provided by the JMU Institutional Review Board for anonymous subjects, details the rights of the participants in the research. Once the participants access the form and understand their rights, they were able to choose whether or not to continue with the research. If they chose to complete the research, they are indicating permission to use the answers and information that they provided in the questionnaires.

The email that participants received (see Appendix C) contained a brief description of the research and a short set of instructions to begin the study. The instructions advised the participants to begin with the first item, a pre-training questionnaire (see Appendix D). The pre-training questionnaire contained questions on participant's knowledge of the Real Estate Lending process while also collecting the participants' basic demographics such as homeowners or non-homeowners, age, sex, and ethnicity. The questions on the process of Real Estate Lending sets the foundation of their knowledge. The link to the questionnaire directed the research participants to a separate QuestionPro page. From there, it instructed them to fill out the questionnaire and submit their answers when they are done and before they begin the training.

After the participants completed the pre-training questionnaire, they were advised in the pre-training questionnaire's final summary page to complete the training by following the link to the Real Estate Lending Branching Video (see Appendix E). The participants were directed to click on the link provided which took them to the first of a series of interactive branching videos that is housed on the YouTube media platform. Before the branching video began, it contained simple instructions for the participants. The participants were asked to watch the video and make the choice they think they would make if they were going through a Real Estate Lending transaction in real life. While this branching video was designed to be completed within approximately ten (10) minutes, if the participants decided to test the different choices, it may take them longer to complete the training. The training was provided electronically which allowed the participants time to review the training. The participants were able to walk through different branching opportunities that led to different outcomes. With the trial-and-error learning, the participants had the opportunity to fail because they made decisions which caused a loan

denial and can re-trace their steps and return to the previous branch of the training to make another choice. The participants can eventually arrive to the desired outcome of a loan approval. Once the participants completed the training, either receiving a loan approval or a loan denial, they were directed back to the email to complete the final portion of the research.

At the completion of the training, the participants were given a post-training questionnaire (see Appendix F) through QuestionPro that tested their knowledge on the Real Estate Lending process and to answer questions on their preference regarding the interactive branching video. The questionnaire will also determine if the new knowledge they acquired from the training can help improve their answers on the process of Real Estate Lending. This helped the researcher determine how to adapt the training to provide the necessary branches and information to ensure learning retention for potential future iterations of the training. The participant's answers also showed whether they were struggling in a particular section which assisted the researcher in determining if modifications of the branching or learning material is needed to cover the gap. The post-training questionnaire also helped the researcher determine the effectiveness of the training and if it provided enough information on the Real Estate Lending process. The final part of the post-training questionnaire thanked the participants for their time and answers.

### **Data Collection**

The pre-training questionnaire was administered to the participants using QuestionPro and contained a series of focused questions on their understanding of the Real Estate Lending process. The researcher also collected a series of demographic questions such as age, gender, ethnicity and whether the participants are current homeowners. The answers to the demographics set the base for learner knowledge because the expectations for a homeowner and non-homeowner would be that the homeowner would at least be familiar with the process. The assumption was that the process would be foreign to the non-homeowner. The pre-training questionnaire would be taken first to identify the participants and will begin the collection of the initial data for the researcher to understand the population sample.

When the participants successfully completed the training, they were directed to take the post-training questionnaire where they were given the same initial questions in the pre-training questionnaire.

The participants were asked the same questions to determine their retention of the Real Estate Lending process from the training that they observed. Included in the post-training questionnaire were questions on the participant's reaction to the interactive branching video. The questions were rated using the Likert scale with the following responses that ranging from Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. This portion of the post-training questionnaire assisted the researcher in determining if the interactive branching video enhanced the learner's experience by helping them learn and retain the information.

### Data Analysis

Following the collection of the first set of data from QuestionPro, the researcher began a content analysis of the answers from the post-training questionnaire for the reaction to the training video compared to the interactive branching video. The data collected helped the researcher identify if the interactive trial-and-error method used for branching was more favorable to the participants and their learning experience.

The second set of data collected on the Real Estate Lending process was analyzed using descriptive statistics to determine if there was an improvement in the learner's score before and after taking the training. Descriptive statistics provided the difference in scores and helped the researcher determine if the participant learned the process from the training. If the participants particularly struggled on one part of the training more than the other, the researcher could adapt the branching video to bridge gaps in knowledge.

Research Questions	Tool(s) Used
1. How does Branching Video training for the average consumer on the Real Estate Lending process affect the consumer's decisions in a Real Estate Lending transaction?	1. Pre-Training Questionnaire (Appendix D) <ul style="list-style-type: none"> <li>a. Questions 5-10</li> </ul> 2. Post-Training Questionnaire (Appendix F) <ul style="list-style-type: none"> <li>a. Questions 1-12</li> </ul>



<p>1. What impact does trial-and-error choices embedded in Branching Videos have on the average consumer's Real Estate Lending transactions decisions?</p> <p>a. What kind of financial decisions does the learner make before entering into a Real Estate Lending transaction?</p> <p>b. What kind of financial decisions does the learner make after completing the Branching Video training on the Real Estate Lending process?</p>	<p>1. Pre-Training Questionnaire (Appendix D)</p> <p>a. Questions 5-10</p> <p>2. Post-Training Questionnaire (Appendix F)</p> <p>a. Questions 7-12</p>
--	--

### **Security of Information & Privacy**

The researcher used James Madison University's online QuestionPro account to store and administer the pre- and post-training questionnaires. The researcher has an account within JMU's account with a person specific case-sensitive password that is only known to the researcher. The researcher assigned each participant a random number on a list with no other identifying information. The information is stored in a locked, secure place in the researcher's home, to keep the participants' information confidential and safe. The researcher collected and stored the data from the study on the researcher's password protected computer and encrypted to ensure confidentiality is maintained. The information collected during this study was destroyed after successful defense of research.

### **Validity, Reliability, & Limitations of Research**

Internal and external validity threats are inevitable in research. The potential inherent threats to the validity of this research included researcher bias, issues with instrumentation, individual characteristics of subjects, and not enough data points. The participants of this study were JMU graduate

students who were contacted via email which impacted the number of voluntary participations in the study.

One limitation that this researcher observed is research bias. The researcher is a professional in the Real Estate Lending industry, therefore, she has significant knowledge in the process and government regulations that surrounds the Real Estate process and believed that the process is understandable to the participants because the researcher understands the process. The researcher piloted the videos with an individual unfamiliar with the process to identify any glitches prior to distribution to the participant sample.

The instrument used to administer the training were found to be unreliable during the creation of the interactive portion of branching videos. The platform that the researcher used had technical issues outside of the researcher's control. The participants who ran into issues may have prevented them from continuing or completing the training. These are all issues out of the researcher's control. There may also have been issues with the data collection instrument where the pre- and post-training questionnaires do not reflect the questions needed to gather the necessary information. The researcher attempted to mitigate this issue by having colleagues and peers review the questionnaire to ensure the questions reflected the desired information needed to support this study.

The researcher was also limited to only female participants who identified as white which affected the research data because the researcher was unable to obtain data from a larger sample. The lack of sample influenced the data because it did not have diversity.

## Chapter 4

The researcher arranged the data based on the pre-training and post-training questionnaires. The pre-training questionnaire collected the demographics information, which sets the subject's foundational knowledge. Both the pre-training and post-training surveys contained the same Real Estate questions to benchmark the subject's initial understanding of the Real Estate industry and whether they retained any of the information after reviewing the Branching Video training. The post-training survey included questions regarding the subject's impression of the branching videos and its success in illuminating the Real Estate Lending process. The post-training survey also included freeform questions for the subjects to provide specific feedback on "What was good about the branching video?" and "What was good about the process? What worked and what can be improved on?". The full survey questions are in Appendix D and Appendix F. The intervention was distributed to 2009 students based on the criteria the researcher set on the bulk email request form (see Appendix A). The researcher received seven responses and compiled the aggregate data from the pre-training and post-training questionnaires. The researcher analyzed the before and after data separately and as a whole. The researcher analyzed the data to answer the following questions:

1. How does Branching Video training for the average consumer on the Real Estate Lending process affect the consumer's decisions in a Real Estate Lending transaction?
2. What impact does trial-and-error choices embedded in Branching Videos have on the average consumer's Real Estate Lending transactions decisions?
  - a. What kind of financial decisions does the learner make prior to entering into a Real Estate Lending transaction?
  - b. What kind of financial decisions does the learner make after completing the Branching Video training on the Real Estate Lending process?

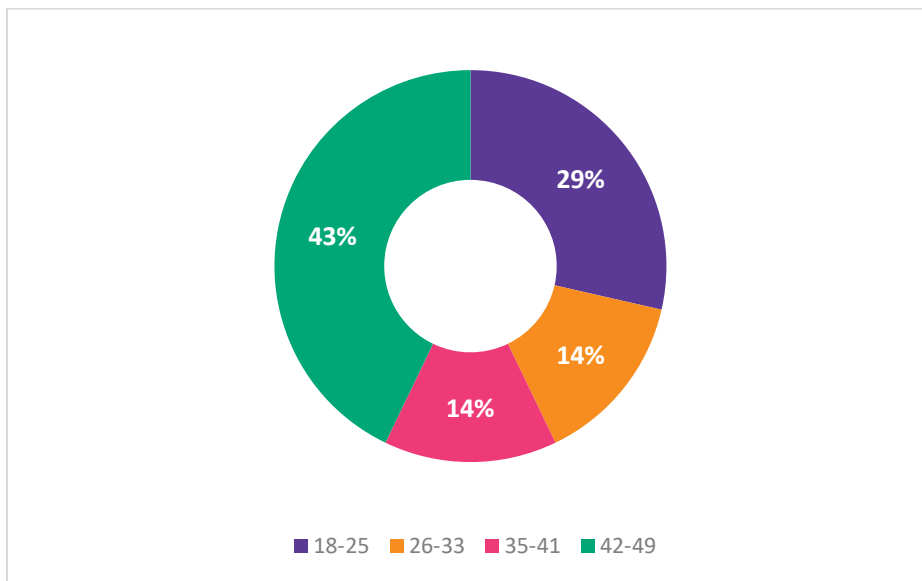
## Analysis of Questionnaires

### *Demographics*

The pre-training questionnaire had two distinct sections. Questions 1-4 were demographic questions to understand the subjects who volunteered to participate in this study. Questions 5-10 contained questions specifically on the Real Estate Lending process. The out of seven voluntary subjects, fifty-seven percent are homeowners. The subjects were also one hundred percent female, and all of the subjects identified as White. The age of the subjects is broader in range between the age of 18 and 49. There were no subjects older than 49 years of age.

### **Figure 1**

#### *Age of Subjects*



*Note.* Percentage of subjects in each age group.

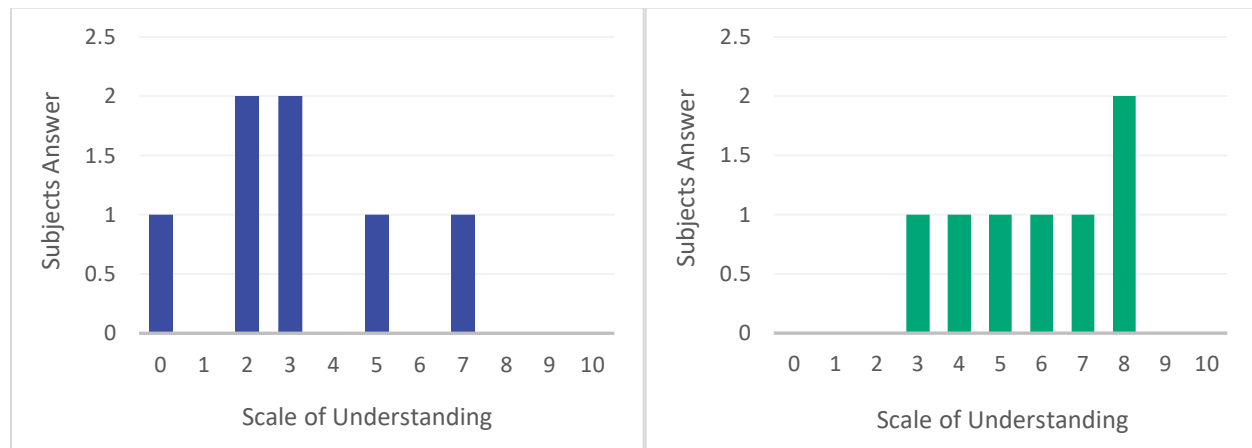
#### *Comparison of Real Estate Lending Questions*

The post-training questionnaire consisted of questions on the Real Estate Lending process and questions on the subject's preference on the branching videos. Questions 1-6 in the post-training questionnaire correlated with questions 5-10 in the pre-training questionnaire on the Real Estate Lending process. The pre-training questionnaire helped benchmark the subject's initial understanding of the topic compared to the post-training questionnaire to determine if the branching video improved their

knowledge of the Real Estate Lending process. Based on Figure 2, which compared the subject's answer to a Likert scale between 0-10, with 0 being no prior knowledge and 10 being expert knowledge, with their pre-and post-training understanding of the Real Estate Lending process, there was a marked improvement after reviewing the branching videos. The pre-training results showed some individuals knew little to nothing about the Real Estate Lending process. Reviewing the post-training results, many were more confident that they understand the Real Estate Lending process.

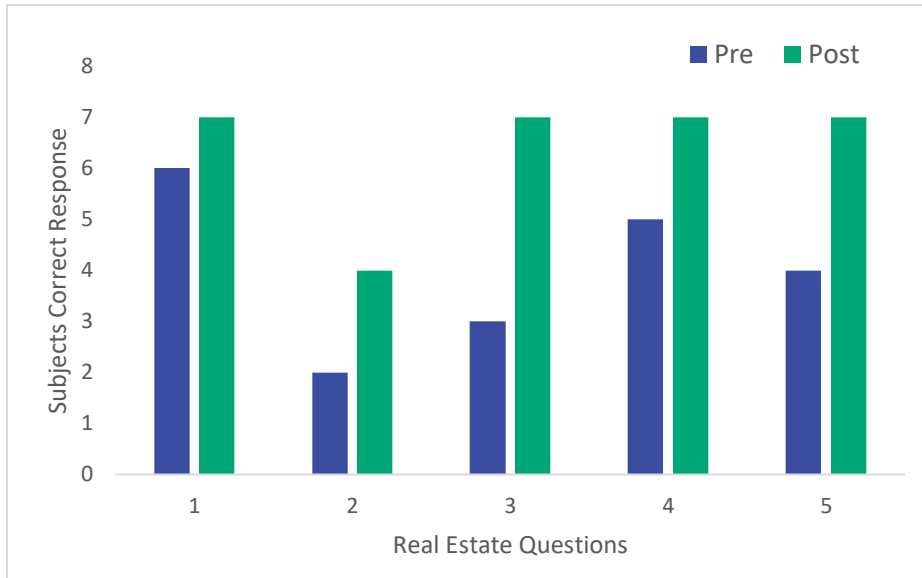
**Figure 2**

*Pre-and Post-Training Understanding of the Real Estate Process*



*Note.* Comparison of subject's understanding of the Real Estate Lending process pre-and post-training.

In Figure 3, answers to the pre-and post-training questions on the Real Estate Lending process improved after a review of the branching video. In the pre-training questionnaire, some subjects did not know the Real Estate Lending process, shown by the lower numbers of individuals choosing the correct answers. After reviewing the branching videos, there was an improvement in the answers to the same questions, indicating that the videos provided the subjects the information needed to answer the questions correctly.

**Figure 3***Pre-and Post-Training Correct Answers*

*Note.* Comparison of correct answers to Real Estate Lending questions pre-and post-training.

#### *Future Financial Decisions and Branching Video Preference*

The post-training questionnaire used a Likert scale to survey the subject's reaction to the branching videos and how it can play a role in the subject's future financial decisions, especially on the Real Estate Lending process. The questions focused on the branching videos, how the subjects felt, whether it helped improve their understanding of the information, and their learning experience. If the subject has a positive experience with the branching videos, it can lead to higher retention of the information presented. The higher retention of information will, in turn, lead to successfully obtaining a future mortgage. Using the following ratings, the researcher calculated each question's mean and mode to summarize the data collected.

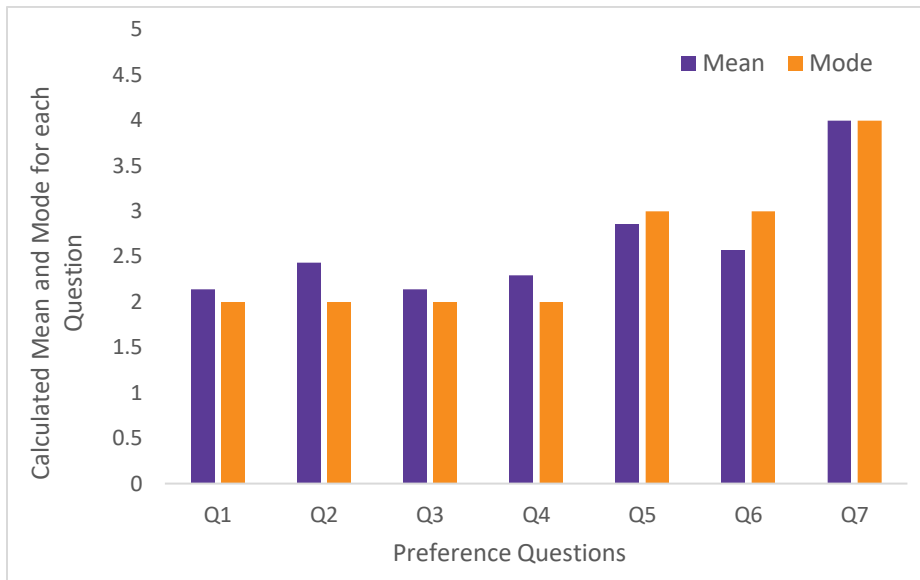
1 – Strongly Agree

2 – Agree

3 – Neutral

4 – Disagree

5 – Strongly Disagree

**Figure 4***Future Financial and Branching Video Preference*

*Note.* The mean and mode for the questions regarding future financial decisions and branching video preference.

Question #1 The Branching Video Changed my opinion on what I knew about the Real Estate Lending process.

The subject's answer from the pre-training questionnaire contributed to the average answer to this question. As shown in Figure 3, the pre-and post-training responses on every question improved from the subject's initial understanding of the process. As indicated in Figure 4, the subject's average answer was that they agree with the statement that going through the branching video on the Real Estate Lending process changed their opinion on what they knew of the process. More than 50% of the subjects identified as homeowners, which indicated that most still do not know the process although they own a home.

Question #2 The Branching Video will help me make future decisions during a Real Estate Lending transaction.

The subject's average answer to this question also reflects that they agree that the Branching Video will help them make future decisions during a Real Estate Lending transaction. Although the subjects' responses were closer to a neutral response, the data indicated more subjects agreed with this

statement. It is a good indication that the branching video's engagement will help the subjects during the actual Real Estate Lending process.

Question #3 The Branching Video helped me understand the Real Estate Lending process.

The average answer for this question also indicated that the subjects agree with this statement. The Branching Video provided them with what they needed to understand the lending process. The answers correlate with the improvement in the answers to the Real Estate Lending questions.

Question #4 Being able to make decisions in the Branching Video helped me feel more engaged with the process.

The majority of the subjects agreed with this statement. The branching videos have interactive sections at the end of each video allowing them to choose their own adventure. It correlated with the average to this statement because the branching videos allowed them to interact with the material directly.

Question #5 I am comfortable going through a Real Estate Lending transaction now that I have completed the Branching Video.

The subject's average answer was that they agreed with this statement. The data indicated that the branching videos can help them with future financial decisions, especially in the Real Estate Lending process.

Question #6 I feel I will successfully obtain a mortgage now that I have completed the Branching Video.

The average to this question indicated the subjects agreed that they would be able to successfully obtain a mortgage but most feel neutral about their abilities to obtain a mortgage. The subjects may not have felt confident that they will successfully obtain a mortgage because the information is too broad, or potentially it does not mimic the process enough for them to feel confident.

Question #7 I was satisfied with the platform that the branching videos was held on.

The average answer for this question was that most of the subjects disagreed that they were satisfied with YouTube as the platform to provide the training. The researcher also found that using this platform was difficult as the program had very particular specifications on setting up the branching. The



researcher's experience and the subjects are similar in that YouTube was not the best platform to be used for branching videos.

### *Suggestions on Improvement*

The researcher provided two free form questions at the end of the post-training questionnaire. These questions allow the subjects the opportunity to provide general feedback on the branching video. The answers to these questions can help the researcher improve on any future iterations to the training or for future researchers to improve on the process.

#### Freeform Question #1 What was good about the branching video?

Many of the subjects who provided feedback in this section often mentioned that the "interaction" and "the ability to make choices" were the best part of the branching video. One subject stated, "it was nice getting to 'go on my own adventure' and take paths that could be right or wrong but get me back to the place where I need to be with guidance from the Realtor and Lender (which is similar to real life)." Other subjects also mentioned that the information was "informative and helpful."

#### Freeform Question #2 What was good about the process? What worked and what can be improved on?

In this question, the researcher received useful feedback to understand the subject's reaction to the branching video. The researcher will summarize the responses from the subjects. The full survey answers are found in Appendix G.

The subjects believed the process was good but many improvements should be made to the training to improve the usability. Many were unhappy with the videos in that the written text was long and hard to read in the allotted time. One subject did not realize that the training was written and did not see the text until the videos were almost complete. The subjects suggested narrating characters instead to make it more engaging. There were also suggestions to highlight essential phrases as the characters are talking to get the point across. Another subject asked if it can "come with a cheat sheet." There were also many mentions of the video being too long for the subjects to read through everything. One individual stated that they understood the novelty of the training and the entertainment factor but was more concerned with saving time and would have preferred a more straightforward video training. The last

mentioning was the use of YouTube as the platform and how the subject was frustrated and would have been frustrated to use it if they had to do this as real training to buy a home.

### **Discussion of Findings**

#### Research Question #1: How does Branching Video training for the average consumer on the Real Estate Lending process affect the consumer's decisions in a Real Estate Lending transaction?

The branching video training improved the subject's understanding of the Real Estate Lending process, this can be deduced from the data. The questions within the branching videos allowed the subjects to make their own decisions. An improvement in the answers to the Real Estate Lending questions indicated that they made the right decisions on the branching videos or made the incorrect decision and could return to the original decision point to make the correct decision. The subjects then retained the information once they were able to try again. The post-training questionnaire results also indicated that the branching videos mimicked a real-life scenario that allowed the subjects to feel like they were going through the process themselves, affecting their future decisions.

#### Research Question #2: What impact does trial-and-error choices embedded in Branching Videos have on the average consumer's Real Estate Lending transactions decisions? What kind of financial decisions does the learner make prior to entering into a Real Estate Lending transaction? What kind of financial decisions does the learner make after completing the Branching Video training on the Real Estate Lending process?

The trial-and-error choices allowed the subjects to return to an original decision point and try again. One of the subject's freeform response questions stated that this allowed them to go back and try again and make the correct choice, which helped with their decisions throughout the video. This can translate to real-life decisions where the subject would be able to relate the process to what would naturally happen during the subject's experience of the actual transaction. As indicated in Figure 3, there was an improvement in the correct answers before and after going through the branching video, which can indicate that if the subjects answered incorrectly and had to redo the answer, they were able to retain the information from having to redo the process.

The pre-training questionnaire answers suggest a lower understanding of the Real Estate Lending process, which indicated that the subjects did not fully understand the process. In that respect, the subjects may have made the wrong decisions before entering into a Real Estate Lending transaction. They may not have understood the requirements, such as the most critical pieces being income, asset, credit, and liabilities. The post-training questionnaire answers that specifically pertained to the Real Estate Lending transaction improved after the training. It indicated that since they could retain the information and correctly answer the survey questions, they would make better financial decisions in their future, especially on the Real Estate Lending process. The freeform question on whether the subject's feel they would be able to successfully obtain a mortgage after going through the training correlates with the higher number of correct answers in the post-training questionnaire.

### **Reliability and Limitations**

The researcher received seven responses after sending the survey to over two thousand graduate students. The researcher also sent a follow-up email to increase the participation in the research but only received three responses. In a final attempt, the Educational Technology Department Director assisted the researcher by sending the research out to the department in an effort for the graduates of the department to assist the researcher in this research. The researcher received an additional four responses. The reliability and limitations of this data are not established due to the small population sample.

The research training received answers from seven voluntary subjects: less than 1% of the graduate population at James Madison University. Not only is the sample size small, but the subjects were all of the same gender and race. The method of measurement for the research was the same and distributed to all subjects in the same manner, which ensured the data's reliability. The limitation is in the test subjects. The small sample and no variation in gender and race only allow for one viewpoint. However, there was a good range in the group. The researcher also received both homeowners and non-homeowner responses, which assisted the researcher in a benchmark understanding of what knowledge the homeowner had compared to those who are not homeowners. Due to the lack of diversity in the

sample population, it is difficult for the researcher to determine if this training would be beneficial for other demographics.

### **Conclusions**

Based on the data, the branching video impacted the subject's understanding of the Real Estate Lending process. The data showed an increased understanding of the process before and after the subjects experience the branching video and make decisions on each crucial step. The data also showed a preference towards the branching video due to the engagement factor and the ability to "choose your own adventure." Allowing the subjects to make decisions helped them retain the information and make the information more engaging. The branching video was not just engaging, but it provided the information necessary to go through the Real Estate Lending process in the future.

The data, however, also showed that the YouTube platform was not the best platform to use for the branching video as it frustrated some of the participants. Others preferred a more straightforward video stating that the branching video was time-consuming. With this in mind, future iterations of this research should focus on using a different platform for branching videos with narrated videos to save time from reading through the videos. These improvements can help the videos be more engaging for the subjects and enhances their learning experience.

## Chapter 5

Real Estate Lending is a heavily regulated industry with many different laws to protect home buyers from becoming a victim of predatory lending. This makes providing training and resources to the consumers a highly important concern. Every financial institution will have their own list of promotions and products which can cause confusion for the consumer during the loan process but with proper training on the topics, consumers can be better informed when they are ready to jump into the process. There were many lessons learned throughout this project and reflections from the researcher are an effort to provide insight to help improve upon any future iteration and design of this topic.

### Final Reflections

#### *Engagement is the Common Denominator*

As human beings, we require engagement in order to retain interest. This is evident in the technological advances over the years, working to improve the training experience for every learner. The feedback received in the post-training questionnaire, many responses to the question “What was good about the branching video?”, was almost unanimous. Many of the responses from the subjects commented on the interaction and how they were able to go on their own adventure where they could make right and wrong decisions. What helped the learner was that they learned from experience but because it was in a safe environment, they were able to learn from the mistakes that they made and try again. The “choose your own adventure” style of training is more intriguing to the learners because it resembles a game-like training.

Engagement is the key component when designing training material for learner retention. Many of the participants were happy that the videos were animated for this training because it was different from using real subjects that you normally see in training videos. It helped provide a level of whimsy and lightheartedness to a long and serious topic.

#### *Narrated Versus Written Text Videos*

There are always pros and cons when determining whether to use narration for training or providing the written text. Narrated trainings are not always accessible especially in an office setting

where you would have to use headphones to listen to the training. On the other hand, written text training is harder to maintain the learner attention. One participant of the training did not notice that there was written text on the screen and the individual missed most of the training. Others said that there was a lot of information provided in the written text which made it difficult to retain the information in the time frame that was allotted. What was good about the written text was that the learner was able to pause the video to take the time to digest and read the information.

When creating video training, it is important to consider the method in which the training is administered. For future iterations of this training, it would be useful to provide both narration and written text in the form of subtitles. It would also be beneficial to provide tangible takeaways such as handouts or brochures with highlights of the information and government resources to ensure the subject has access to the information for quick and easy reference. The combination of branching video trainings and handouts will make the training even more beneficial for the learners.

#### *Longer Length Videos Caused Loss of Interest*

The individual video components were considered to be too long. The participants stated their frustration at the length of the videos and how it was difficult to continue because they were also expected to read the training. Due to the length of the videos, the participants lost interest in the topic which meant they had a hard time retaining the information provided by the training. The training videos should have been broken up into shorter chunks of information with more branching in order to make up for the amount of information that the training provided. This reflection highlights the importance of thinking about the entirety of the design with the learners in mind to ensure the product you are designing meets their needs. If the learners are not able to retain the information due to a flaw in the design, it makes the design essentially useless.

As a lesson learned, improvement of this training will be contingent on reevaluation of the branching by creating more branches to help break up the videos into smaller pieces that are digestible for the learner. The videos are currently around the three-minute mark. Breaking the videos into smaller

chunks will help mitigate the issue of having the trainings be more than a minute to a minute and a half of reading.

### *Importance of Learning Technology*

The video platform, YouTube, was used to create the branching videos by utilizing their hotspot technology which links videos from one to the next. I decided on YouTube as the platform to use to create the branching videos because of its accessibility being a free video sharing website. Everyone has access to YouTube which means anyone can upload videos and create branching interactivity.

YouTube is a great video platform and the company is working diligently to improve their branching and interactive video abilities, however, the platform has many limitations that the researcher was not able to foresee. The videos had to be uploaded in a particular manner for it to correctly reflect the branching choices at the end of the video. The survey indicated that the subjects did not like YouTube as the platform for branching videos. The branching was clunky and required specific instructions for when the hotspots can appear, which made it difficult to use. In future iterations, investing in a more appropriate branching video platform would not only improve the developer's experience when compiling the branching videos but could also markedly improve the experience of the learners.

The coursework from my Educational Technology program, specifically the Principles of Instructional Design, highlighted the importance of creating the learning experience. A part of the learning experience is ensuring you use the correct tools and programs to facilitate the training. Without proper tools and programs, the facilitation would hinder the learning experience. In this case, utilizing YouTube as the branching video platform hindered the learner's experience because they have not fully developed their hotspots for the proper interactivity.

My interest in using branching videos as the training method for this intervention stemmed from my Advanced Video and Audio Production class. In that course, our final project was a group branching video. The program we used, BranchTrack, created the ideal learning experience because the interactive element was integrated into the program and created a seamless experience from the videos to the

interaction. In place of YouTube, BranchTrack would be the program I would explore for future iterations of this intervention based on my previous experience with it.

### **Recommendations and Implications**

These reflections helped shape my understanding of the difficulty of creating branching videos that are easy for learners to use. As a learner myself, I seek ease and accessibility, which the video platform used was not. Based on this information, I have explored different branching video software's that can make the experience for the learners a better one. Also using reflections on the project, an electronic handout/brochure such as an interactive PDF will be created to highlight the important information within the branching videos as well as governmental resources so that the learners can quickly access the information.

The reflection also helped highlight the preference for narrated videos as opposed to written text. Requiring the learners to read the training not only takes a lot of their time, but the engagement factor for the training is also much lower. For future branching videos that I create, or for any other individual who would like to try creating branching videos for training purposes, using good microphones to narrate the training will be beneficial for learner retention. If the training videos have multiple characters, consider using different voices to keep the learners attention and interest in the training. With these new considerations for future branching videos, it would make for a fun and engaging training, no matter the topic.

For my current profession as an Instructional Designer in the Real Estate Lending Training department, this research has many significant implications. During the drafting of my 2021 year-long performance goal, my superior and I have determined that my applied research experience can lend itself to the creation of a survey, series of videos, and data analysis. Due to the nature of Real Estate Lending and the constant changing of guidelines, video training is rarely used but heavily requested by the business units we support. We hope by conducting this small research on video usage by the departments, this information can support the need and desire to have video training in Real Estate Lending. The results



of this analysis will be used to hopefully support an Annual Financial Planning (AFP) request for a Branching Video software for our department in the year 2022.

To accomplish the goal I have set forth, I will be creating a survey to identify the top three most common errors during a Mortgage Underwriter's review of a loan. From those most common errors, we would create videos to show the correct way to complete the task and provide the videos to the Mortgage Underwriting department through the Brightcove video platform. Brightcove not only links the audience to the videos but they also provide data on how many times the videos were accessed. The number of times the videos are accessed can provide numerical support to our AFP request to show that video training is highly desired by our business unit. With this in mind, creating more engaging training using a branching video software with cause-and-effect scenarios can improve the learner's experience which can lead to an improvement in the common errors. I am hopeful that this research endeavor will be successful so that our department can obtain licensing for a branching video software to make our training more fun and engaging while improving the learners' experience.

### References

- Agarwal, S., Amromin, G., Ben-David, I., Chomsisengphet, S., & Evanoff, D. D. (2010). Learning to Cope: Voluntary Financial Education and Loan Performance during a Housing Crisis. *American Economic Review: Papers & Proceedings*, 100(2), 495-500.
- Alduraby, H. & Liu, J. (2014). Using the Branching Story Approach to Motivate Students' Interest in Reading. *International Electronic Journal of Elementary Education*, 6(3), 463-478.
- Arvanitis, S. (2010). e-Learning programs as loyalty investments for financial corporations. *British Journal of Educational Technology*, 41(5), 70-74.
- Botis, S. (2017). The Impact of Financial Education on Banking Behavior. *ACTA Universitatis Danubius*, 13(6), 292-302.
- Brendel, W. T. & Chou, C. C. (2016). Transforming Organization Change through Collaborative Digital Storytelling. *Journal of Educational Technology Department and Exchange*, 9(1), 13-28.
- Davies, P. (2010). DOLCETA: on-line consumer education – an innovative tool for teachers and educators. *Journal Plus Education*, 6(2), 9-14.
- Dubbelman, T. (2011). Playing the hero: How games take the concept of storytelling from representation to presentation. *Journal of Media Practice*, 12(2), 157-172.
- Holt, K. (2020, September 20). YouTube is working on interactive original shows, too. Engadget. [https://www.engadget.com/2019-04-09-youtube-interactive-original-shows-live-specials.html?guce\\_referrer\\_us=aHR0cHM6Ly93d3cuZ29vZ2xILmNvbS8&guce\\_referrer\\_cs=GY25-l5VUMzd7CP-HID5dg](https://www.engadget.com/2019-04-09-youtube-interactive-original-shows-live-specials.html?guce_referrer_us=aHR0cHM6Ly93d3cuZ29vZ2xILmNvbS8&guce_referrer_cs=GY25-l5VUMzd7CP-HID5dg)
- Koohang, A., Riley, L., & Smith, T. (2009). E-Learning and Constructivism: From Theory to Application. *Interdisciplinary Journal of E-Learning and Learning Objects*, 5, 91-109.
- Kuk, H. & Holst, J. D. (2018). A Dissection of Experiential Learning Theory. *Adult Learning*, 29(4), 150-157.
- Luke, K. (2013). 12 Ways to Integrate Video into Your Marketing. *Journal of Financial Planning*, 18-19.

- Moore, V., Sumrall, W., Mott, M., Mitchell, E., & Theobald, B. (2015). Exploring Consumer Literacy. *The Social Studies, 106*, 193-203.
- Mohammed, S., & Kinyo, L. (2020). Constructivist Theory as a Foundation for the Utilization of Digital Technology in the Lifelong Learning Process. *Turkish Online Journal of Distance Education (TOJDE), 21(4)*, 90-109.
- Park, S. W., (2018). Motivation Theories and Instructional Design. In R. West (ed.), *Foundations of Learning and Instructional Design Technology* (1<sup>st</sup> ed.), 149-163.  
<https://edtechbooks.org/lidtfoundations>.
- Rajabalee, Y. B., Santally, M. I., & Rennie, F. (2020). A study of the relationship between students' engagement and their academic performances in an eLearning environment. *E-Learning and Digital Media, 17(1)*, 1-20.
- Rangan, D. & Chakraborty, L. (2020). COVID-19: Global Diagnosis and Future Policy Perspective. *National Institute of Public Finance and policy Working Paper Series, 304*, 1-25.
- Spector, J. M. (2016). *Foundations of Educational Technology: Integrative Approaches and Interdisciplinary Perspectives* (2<sup>nd</sup> ed.). Routledge. 10.4324/9781315764269
- Thyoff, A. (2019). Teaching Qualitative Marketing Research: An Experiential Approach. *Marketing Education Review, 29(1)*, 75-87.
- Volpe, R. P. & Mumaw, K. (2010). Mortgage Meltdown Reveals Importance of Financial Literacy in Education. *Journal of Personal Finance, 9*, 61-77.
- Vyond. (2019). *TD: Talent Development, 73(7)*, 13.
- Wijnker, W., Bakker, A., Van Gog, T., & Drijvers, P. (2019). Educational videos from a film theory perspective: Relating teacher aims to video characteristics. *British Journal of Educational Technology, 50(6)*, 3175-3197.
- Wilson, G. A. (2020). The use of using digital tools in developing branching narrative. *Book 2.0, 10(1)*, 117-139.

Wurdinger, S. & Allison, P. (2017). Faculty Perceptions and Use of Experiential Learning in Higher Education. *Journal of e-Learning and Knowledge Society*, 13(1), 15-26.

## Appendix A

## JMU Bulk Email Request Form

**JMU Email Request** Page 1 of 5

For **student** mail, fill out this request (including Student Selection) and email to the Office of the Registrar ([hansenda@jmu.edu](mailto:hansenda@jmu.edu)). For **employee** mail, fill out **ONLY** the first two pages of this request (including Employee Selection) and email to Human Resources ([thomasce@jmu.edu](mailto:thomasce@jmu.edu)). For a **combined** mailing, do both. Please allow **9 working days** for mailing, approval and processing.

**Request**

Department: Education MSC: \_\_\_\_\_ Date of Request: 02/01/2021  
 Requestor / Contact: Thuvan Pham Phone: 540-908-8785  
 Date Required: Not before: 02 / 01 / 21 At least by: 02 / 10 / 21

**\*\*When this form is emailed from the Department Head or Student Group Advisor's JMU email address (@jmu.edu), the form will be accepted without a physical signature. Both the email text and the completed form should be emailed to the appropriate offices listed above. Acceptance of the form via email, without signature, is a temporary measure due to the number of people working remotely.**

Data Approval:  Human Resources \_\_\_\_\_ Signature(s) \_\_\_\_\_ Date \_\_\_\_\_  
 Registrar's Office \_\_\_\_\_

**Output**

**Employee Output Options** (choose one or more):

- File to [mailservice@jmu.edu](mailto:mailservice@jmu.edu)  
 Email Distribution  
 Email Distribution to IDs For this, you must send a file of fully-qualified email IDs to [request-bulkmail@jmu.edu](mailto:request-bulkmail@jmu.edu)

**Student Output Options** (choose one or more):

- File (JMU Mail Services) **Please fill out items 1-8 under Student Selection.**

- Email Distribution  
 Email Distribution to IDs For this, you must send a file of fully-qualified email IDs to [request-bulkmail@jmu.edu](mailto:request-bulkmail@jmu.edu)

**\*\*\* NOTE: For all requests (email, and file), a hardcopy of the text must be attached and the text must be sent to [request-bulkmail@jmu.edu](mailto:request-bulkmail@jmu.edu). If this is not done the request will be delayed. \*\*\***

How many students/employees do you expect to be selected (based on the criteria you chose below): 100+  
**If Email, complete ALL 4 steps below (see FAQ for guidelines). Choose either @jmu or @dukes for each:**

1. Email the text of your message to [request-bulkmail@jmu.edu](mailto:request-bulkmail@jmu.edu).

The message was sent on 02 / 01 / 21, by phamtt @jmu.edu  
@dukes.jmu.edu

2. Attach a printed copy of the text to this form

3. Define the email addresses (use ONLY your Official JMU e-ID) and subject  
*You may use the same or different mailboxes for the 2 addresses below. Faculty/Staff may request a departmental mailbox from <http://www.jmu.edu/computing/communication-and-collaboration/exchange-email.shtml>.*

From phamtt @jmu.edu Reply-To phamtt @jmu.edu  
@dukes.jmu.edu @dukes.jmu.edu

Subject Invitation to Participate in a Real Estate Lending Branching Video Training and Survey

4. If the request is for a survey that requires IRB approval, please list that number: 21-2246  
 5. Choose which option best describes your email:  
 (see FAQ for details on criteria)  Informational  
 Official

## *Employee Selection*

---

**Note:** Please email Human Resources ([thomasce@jmu.edu](mailto:thomasce@jmu.edu)) with status questions.

### 1. Employee Population

- Full-time & Part-time Employees (112100, 112300, 112600, 112700, 112800, 112810, 112820, 114100, 114500, 114530,  
(includes ALL JMU Faculty & Staff) 114900, 114910, 114920)
- All Full-time Faculty ONLY (112100, 112600, 112810, 112820)
- All Full-time Employees ONLY (112100, 112300, 112600, 112700, 112800, 112810, 112820)
- A/P Faculty ONLY (112100, 112820)
- Classified ONLY (112300, 112700, 112800)
- Instructional Faculty ONLY (112600, 112810)
- All Faculty ONLY (112100, 112600, 112810, 112820, 114500, 114910, 114920)
- All Part-time Employees ONLY (114100, 114500, 114530, 114900, 114910, 114920)
- Wage ONLY (114100, 114900)
- PT Faculty ONLY (114500)
- PT Non-Teaching ONLY (114530)
- Department Heads, Associate Vice Presidents, Deans, and Vice Presidents ONLY
- Affiliates (113600)

### 2. Division - specify one or more, (only necessary if you wish to send information to a specific division)

- Select employees working in these Divisions

\_\_\_\_\_

### 3. Department - specify one or more, (only necessary if you wish to send information to a specific department)

- Select employees working in these Org Codes

\_\_\_\_\_

## Student Selection

---

**Note:** E-mail addresses are available only for those students eligible to enroll or enrolled. Students who have graduated or have withdrawn cannot be emailed via this process. Please email questions to [request-bulkmail@jmu.edu](mailto:request-bulkmail@jmu.edu).

**Check boxes as directed – these are Required:**

1. **Term\*** (choose one)

- Fall Year \_\_\_\_\_  
 Spring Year 2021  
 Summer Year \_\_\_\_\_

\*The term you choose will be used for the criteria below

2. **Population** (choose one)

- Students  
 Instructors of Record (Email Distribution is the only output choice available)

**If you chose the Instructors of Record population, this is Required:**

3. **Academic Organization**

- Select instructors of record who work in this Academic Organization—specify one college or department—  
 or specify UNIV for all: \_\_\_\_\_

**If you chose Student population, this is Required:**

4. **Type of Student** (choose one)

- Enrolled (Already enrolled)  
 Eligible to Enroll (Already enrolled or approved to enroll)

**If you chose File Output Option, these are Required:**

5. **Sequence** (choose one)

Sequence will be vertical on each page

- Name  
 Zip, Then Name  
 JMU Mail Box

6. **Name to Print** (choose one)

- Primary Full Name  Preferred Full Name

7. **Address Usage** (choose one)

**Cascades until it finds an active address:**

- Home Home  
 Mailing Mailing (includes JMU box), Home  
 Bill-Here Billing, Mailing (includes JMU box), Home  
 Bill-Away Billing, Home

8. **Add "To" Line**

Printed on first line of label

- To The Parents/Guardians Of  
 To The Family Of

22. **Academic Subplan** (specify one or more)  
 Select students in these Academic Subplan(s), i.e., concentrations:  
 \_\_\_\_\_
23. **Restrict by Cumulative Credit Hours Earned**  
 Yes, Range \_\_\_\_\_ to \_\_\_\_\_
24. **Restrict by Cumulative GPA**  
 Yes, Range \_\_\_\_\_ to \_\_\_\_\_
25. **Academic Standing** (choose one or more) *Data is only available after final grades are posted for the term you chose above.*  
 Academic Suspension       Academic Warning  
 Academic Probation       Good Standing
26. **Honors** (choose one or more)  
*Undergraduate Honors:*      *High School Honors:*  
 Dean's List       Valedictorian       National Merit Finalist Scjr  
 President's List       National Merit Commended Scjr       National Merit Semi-Finalist
- 27\*. **Academic Organization**  
 Select students whose major academic plan is in this Academic Organization—specify one college:  
 \_\_\_\_\_
- 28\*. **Instructor of Record** (specify one)  
 Select students who are enrolled in classes of this Instructor of Record:  
 \_\_\_\_\_ Name \_\_\_\_\_ Student Admin emplid \_\_\_\_\_
- 29\*. **Course Id** (specify one or more)  
 Select students who are enrolled in these Course Id's, i.e., *all* sections:  
 \_\_\_\_\_
- 30\*. **Advisor** (specify one)  
 Select students who are advised by this Advisor: \_\_\_\_\_ Name \_\_\_\_\_ Student Admin emplid \_\_\_\_\_

\* Note to operator: not all values are displayed online



22. **Academic Subplan** (specify one or more)  
 Select students in these Academic Subplan(s), i.e., concentrations:  
 \_\_\_\_\_
23. **Restrict by Cumulative Credit Hours Earned**  
 Yes, Range \_\_\_\_\_ to \_\_\_\_\_
24. **Restrict by Cumulative GPA**  
 Yes, Range \_\_\_\_\_ to \_\_\_\_\_
25. **Academic Standing** (choose one or more) *Data is only available after final grades are posted for the term you chose above.*  
 Academic Suspension       Academic Warning  
 Academic Probation       Good Standing
26. **Honors** (choose one or more)  
*Undergraduate Honors:*      *High School Honors:*  
 Dean's List       Valedictorian       National Merit Finalist Scjr  
 President's List       National Merit Commended Scjr       National Merit Semi-Finalist
- 27\*. **Academic Organization**  
 Select students whose major academic plan is in this Academic Organization—specify one college:  
 \_\_\_\_\_
- 28\*. **Instructor of Record** (specify one)  
 Select students who are enrolled in classes of this Instructor of Record:  
 \_\_\_\_\_ Name \_\_\_\_\_ Student Admin emplid \_\_\_\_\_
- 29\*. **Course Id** (specify one or more)  
 Select students who are enrolled in these Course Id's, i.e., *all* sections:  
 \_\_\_\_\_
- 30\*. **Advisor** (specify one)  
 Select students who are advised by this Advisor: \_\_\_\_\_ Name \_\_\_\_\_ Student Admin emplid \_\_\_\_\_

\* Note to operator: not all values are displayed online

James Madison University  
 Revised March 2020

## **Appendix B**

### **Participant Privacy Information and Research Consent Form**

#### **Identification of Investigators & Purpose of Study**

You are being asked to participate in a research study conducted by Thuvan Pham from James Madison University. The purpose of this study is to understand the effects of branching videos in Real Estate Lending transaction decisions. This study will contribute to the researcher's completion of her Applied Research Project.

#### **Research Procedures**

This study consists of two research questionnaires that will be administered to individual participants via QuestionPro. You will be asked to provide answers to a series of questions related to the commercial Real Estate Lending informational video and the researcher's branching video.

#### **Time Required**

Participation in this study will require 45 minutes of your time.

#### **Risks**

The investigator does not perceive more than minimal risks from your involvement in this study (that is, no risks beyond the risks associated with everyday life).

#### **Benefits**

Potential benefits from participation in this study include an increased understanding on Real Estate Lending transactions for future homeowners.

#### **Confidentiality**

The results of this research will be presented to a research committee. While individual responses are obtained and recorded anonymously and kept in the strictest confidence, aggregate data will be presented representing averages or generalizations about the responses as a whole. No identifiable information will be collected from the participant and no identifiable responses will be presented in the final form of this study. All data will be stored in a secure location accessible only to the researcher. The researcher retains the right to use and publish non-identifiable data. At the end of the study, all records will be destroyed.

#### **Participation & Withdrawal**

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

**Questions about the Study**

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Thuvan Pham  
Department of Education  
James Madison University  
phamtt@dukes.jmu.edu

Cheryl Beverly  
Department of Education  
James Madison University  
(540) 568-6262  
[beverlcl@jmu.edu](mailto:beverlcl@jmu.edu)

**Questions about Your Rights as a Research Subject**

Dr. Taimi Castle  
Chair, Institutional Review Board  
James Madison University  
(540) 568-5929  
[castletl@jmu.edu](mailto:castletl@jmu.edu)

**Giving of Consent**

I have read this cover letter and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. I certify that I am at least 18 years of age.

By clicking on the link below, and completing and submitting the anonymous survey, I am consenting to participate in this research.

[Real Estate Lending Pre-Training Questionnaire](#)

[Real Estate Lending Branching Video](#)

[Real Estate Lending Post-Training Questionnaire](#)

Thuvan Pham

\_\_\_\_\_  
Name of Researcher (Printed)

*Thuvan Pham*  
\_\_\_\_\_  
Name of Researcher (Signed)

18 JAN 2021

\_\_\_\_\_  
Date

This study has been approved by the IRB, protocol # 21-2246

### Appendix C

#### Email Request for Anonymous Research Participation

Hello JMU Students!

I am a graduate student in the Educational Technology program here at James Madison University. I am currently researching the effects of branching videos on consumer's Real Estate Lending transaction decisions. Also, how this may affect consumer's future financial decisions when they are more aware of the requirements for one of the most heavily regulated industry. Below is a set of links to the questionnaire and video trainings. After each portion, you will be directed to the next section until you have completed the Post-training Questionnaire. Participation in this study should take no longer than 30 minutes of your time. Participation is completely voluntary, and all submissions will be kept anonymous.

The survey and training will follow in this order:

1. Pre-training Questionnaire
2. Real Estate Lending Branching Video
3. Post-training Questionnaire

After each section, you will be directed to the next research item on the list.

Please complete the training in the order listed above in order for the researcher to gain an accurate representation of your reaction in the Post-training questionnaire.

To consent to receive training and access to the first questionnaire, please open the Participant Privacy Information and Research Consent Form.

Thank you for taking the time to complete the trainings and questionnaires. Your help is greatly appreciated!

Best,  
Van Pham

**Appendix D**

## Pre-training Questionnaire

1. Are you a homeowner?
  - a. Yes
  - b. No
  
2. What is your age?
  - a. 18-25
  - b. 26-33
  - c. 34-41
  - d. 42-49
  - e. 50+
  
3. What is your sex?
  - a. Male
  - b. Female
  - c. I do not wish to provide
  
4. What is your race?
  - a. American Indian or Alaska Native
  - b. Asian
  - c. Black or African American
  - d. Native Hawaiian or Pacific Islander
  - e. White
  - f. Hispanic or Latino
  - g. I do not wish to provide
  
5. Between 1-10, with 1 being the least and 10 being the most, how much do you think you know about the Real Estate Lending process (home buying)?
  
6. Which of the following do you think are important in the homebuying process?
  - a. Credit
  - b. Income
  - c. Asset
  - d. Liabilities
  - e. All of the above
  
7. What do you think is the first step you should take when you're looking for a home?
  - a. Put in an offer on your dream home
  - b. Reach out to your bank for a pre-approval
  - c. Talk to a realtor
  - d. Talk to the sellers
  
8. Which of the following should you **not** do when in the process of buying a home?
  - a. Save money for your down payment
  - b. Buy a car
  - c. Buy and charge all of the new furniture to your credit card
  - d. B & C
  - e. None of the above

9. What do you think is the order to obtaining a loan?
  - a. Pre-approval, put in an offer, provide documentation, appraisal, final documentation, closing
  - b. Put in an offer, provide documentation, pre-approval, appraisal, final documentation, closing
  - c. Provide documentation, pre-approval, put in an offer, appraisal, final documentation, closing
  - d. Put in an offer, pre-approval, provide documentation, appraisal, closing, final documentation
  
10. True or False: Financial Institutions are not regulated by the government.
  - a. True
  - b. False

## Appendix E

Real Estate Lending Choose Your Own Adventure Branching Videos Script

**Link to Video Intervention:** [youtu.be/\\_IVfLoKfZOw](https://youtu.be/_IVfLoKfZOw)

### **Video 1: Deciding you are ready to buy a house.**

*Narrator:* You are a renter. While walking around your neighborhood one day, you noticed a house two blocks from your current residence was listed For Sale. You start to imagine what it would be like to own your home and not worry about fixing the walls if you put up a painting or not being able to paint the master bedroom Superman blue! As you stand there pondering the idea of buying your first house, you decided to take action into your own hands and become a homeowner.

#### **Question 1: What should you do first?**

- a. Contact a Realtor
- b. Go straight to the house, knock on the door and ask the seller to sell the house to you

### **Video 2: Working with a Realtor**

*Narrator:* The first step to home buying is to find someone to help you navigate the process. Using help from family and friends, you can reach out to a recommended realtor. Here we have Nancy Realtor to help you get started.

*Nancy Realtor:* Thank you for reaching out to me! I hear that you are in search of a home. I look forward to helping you find your dream house. There are many steps to homebuying. Let's start with the first important question.

#### **Question 2: What is your budget?**

- a. I researched and my budget is...
- b. I don't have a budget

### **Video 3: Obtain a Pre-approval**

*Nancy Realtor:* The first big step in finding your dream home is to determine your budget. This will help guide you and myself in finding the right home for you. We can start by helping you determine your goals. This can be accomplished by looking at your monthly expenses in relations to your savings goals along with how much you have as a down payment to decide the right budget for your new home. You

can use the Consumer Financial Protection Bureau's mortgage tools to help you determine a budget by going to <https://www.consumerfinance.gov/consumer-tools/mortgages/>. Once that amount is set, we can look at your options for loans that meets your needs.

*You:* Thank you for your guidance, Nancy! I think I have my budget now after taking your advice in my calculations! What do I do next?

*Nancy Realtor:* Now that we have your budget in mind, we can reach out to different financial institutions to obtain a pre-qualification or a pre-approval. The difference between the two is that a pre-qualification is the financial institution's determination of qualification based on a good indication of creditworthiness and your ability to borrow. A pre-approval is more specific and requires documentation to determine exactly how much you can be pre-approved to borrow.

*You:* Nancy, how do I know which one to use?

*Nancy Realtor:* This depends on your preference. For individuals who are still deciding on their budget and wants to shop the market, a pre-qualification may be better, however, the uncertainty of your full approval still lies in the documentation to prove that you are able to repay the loan amount indicated on your application. For the purpose of your first time buying a home, let's request a pre-approval from the financial institution to ensure your buying potential and find the home that best fits your personal and financial needs. Do you have a financial institution you would like to use?

*You:* I would like to use my bank that I already have accounts with.

*Nancy Realtor:* That is a great start! Contact your bank and they can help you get started with an application. They will walk you through the loan products that they have to offer. Some loan options require a down payment and some special offers from the bank may not. The more money you loan, the higher your payments will be. One major thing to keep in mind, borrower rights are very well protected. You can always ask your financial institution for clarification on the process when you don't understand why certain items are needed. The Consumer Financial Protection Bureau has many regulations to protect from unfair or discriminating practices. The financial institutions are also required to disclose information to you in regard to their affiliations to other businesses as required by law. Never hesitate to ask questions. You can refer to [consumerfinance.gov](https://www.consumerfinance.gov) for more information on your rights as a home buyer!



Question 3: Your financial institution is requesting all of your information for a pre-approval. What do you do?

- a. Request explanation for documentation request before providing
- b. Provide the documentation right away

**Video 4: Put in the offer**

*Nancy Realtor:* It is alright for you to always ask questions about the process and documentation requests. If you feel that the documentation your financial institution is requesting is not unreasonable, you can also provide the documentation to them without hesitation. It comes down to determining if the request was reasonable or if it violates your rights to provide them. It looks like they received the employment information that they requested and have provided you with the pre-approval. It looks like your pre-approval states you opted for the traditional 30-year loan with a 20% down payment. Now that we have your pre-approval, let's look for your dream house! Based on your preferences in location and budget, we found 3 properties that you may like!

*Montage of Nancy Realtor showing you the three properties. You choose the best one that fits your needs. Which house do you like?*

*Nancy Realtor:* Now that we have seen all of the homes in your budget, is there a house you would like to put in an offer for? We can also continue looking if none of the properties today meets your needs.

*You:* I would like to put in an offer for House # 1!

*Nancy Realtor:* Great! I will help you put in an offer once we settle all of the details into a sales contract. Let's discuss what you would like to add as a part of the contract. For example, fees you want to request the sellers to pay for. You can also include additional inspections that you would like completed for the purchase to go through, such as termite, home inspection, and radon inspection depending on the property. For good faith purchases, the sales contract usually comes with an Earnest Money Deposit, which is to protect the sellers if you decide to withdraw from the sales contract for reasons other what is stated as acceptable. Keep in mind that this step may take some negotiations if the owners are willing to entertain your offer but have demands to add other items to the sales contract. If your offer is not accepted, we can continue to look or offer on the other homes that you have seen. Remember, you should

always go for the option that best suits your needs. Let's draft up a sales contract and submit it to the selling agent!

Question 4: Your offer has been accepted. What should you do next?

- a. Nothing, they have everything they need
- b. Reach out to your Loan Officer to inquire about the next steps for your loan

**Video 5: Begin application process**

*Eric Loan Officer:* I am Eric Loan Officer and I can't wait to get you into your dream home! Let's discuss the next steps to get your loan approved. As a part of the loan application, there is a set of documents you must complete and sign as an acknowledgement that you understand the requirements for your loan application. You can access it via your account portal. There are some documents that requires you to print out, complete, and sign. For those documents, we want to make sure that you fill it out in its entirety so that there is no delay in your closing. It looks like we have your employment information with all the documents when you requested the pre-approval. According to your loan file, you will be bringing a 20% down payment. We will need documentation showing that you have the funds to pay for this down payment. Please keep in mind that we may request updated documents if the documents you provided are outdated per regulations. This is dependent on how long it took for you to find your home. I will let you know if your employment documentation will need to be updated. As we proceed, I will let you know if documents are still missing from your file. Please complete your documentation and send it to me as soon as possible.

*You:* Is there anything else that is needed for the loan file?

*Eric Loan Officer:* Yes, there is also an appraisal that we need to complete. The appraisal is an unbiased professional estimation of the value of the property based on current research of the housing market. This is to ensure the amount of money that the financial institution is loaning is not above the amount the house is worth. The appraisal, per regulations, must be paid prior to loan closing. We order the appraisal through a 3<sup>rd</sup> party. The appraisal fee is \$500. How would you like to pay for that?

*You:* Please pay with the money in my checking account.

Question 5: After your Loan Officer walks you through the process and what is needed to satisfy loan conditions, you decide to...

- a. Complete and gather the documentation requested
- b. Wait until you receive the appraisal before gathering documentation

**Video 6: During the loan process**

*Nancy Realtor:* According to Eric Loan Officer, he has received the documents from you that he needs, and you are on track to be cleared to close for your loan, pending the receipt of the appraisal.

*You:* Nancy, that sounds wonderful! I feel the need to celebrate by going out and buying a new car!

*Nancy Realtor:* We suggest not making any drastic financial purchases at this time to ensure you have the funds for closing. Any changes in credit can also affect your debt-to-income ratio, which is the amount of money you make in relation to how much money you owe. If your debt-to-income ratio is too high, it may affect your loan eligibility.

Question 6: After talking to Nancy, you decide not to get your car. However, you want to buy furniture for your new home. After all, a home needs to be furnished. How much can furniture really cost and affect your debt-to-income ratio? What do you do?

- a. Use your credit card and buy everything
- b. Wait to buy your furniture

**Video 7: Appraisal**

*Eric Loan Officer:* I have received your full appraisal from the 3<sup>rd</sup> party appraisal company. I regret to inform you that the appraised value of the property you're wishing to purchase came in lower than the purchase amount on the sales contract. Our bank is only able to loan up to the amount of the appraised value. If you wish to proceed with the loan as is, you will have to bring the difference between what we can loan and the price of the home. Per the asset documents we received from you, you do not have enough in savings to bring the difference. Any assets and large deposits will need to be verified per government regulation. It is a stringent process and will need to meet specific guidelines. If you wish to proceed with providing asset information, you may risk the assets not meeting guidelines and your loan may either be delayed or may not meet the sales contract deadline. Delayed closings may upset the sellers and you can lose both the property and your Earnest Money Deposit. Your other option is to negotiate the

sales price with the sellers to see if they will lower the sales price in order for you to proceed. The final option will be that the sale would not go through.

*You:* Thank you, Eric. I will have to think on this.

Question 7: After talking to Eric Loan Officer, you receive an emailed copy of the appraisal. As discussed, you see the appraisal amount is lower than the sales price of the purchase property, Since you don't have enough money to proceed with the sale as is, you...

- a. Borrow money from friends and proceed with the loan as is
- b. Discuss potential sales price reduction with the sellers before proceeding

### **Video 8: Final documentation**

*Nancy Realtor:* Great decision to renegotiate sales terms with the sellers! I just heard back from the seller's agent and I was informed that they are willing to update the sales contract to the appraised value of the home!

*You:* Nancy, this is wonderful news!

*Nancy Realtor:* Some buyers, however, may not be as fortunate where the sellers are not willing to negotiate the price of the sale which will leave buyers in a predicament. You can either bring the difference to closing because your lender will not lend over the amount the home is worth or you can walk away from the sale and get your Earnest Money Deposit back. Both of which are difficult decisions to make. Before deciding on either, make sure the choice you make is the one that best fits your needs. I will provide this new executed sales contract addendum to Eric Loan Officer so that he can keep the loan moving forward.

*You:* Thank you, Nancy, for helping me push my loan forward in every step. According to Eric Loan Officer, this is the last document he needs so I can close on my home!

*Nancy Realtor:* That sounds great! Don't forget that there is also the final Closing Disclosure which lists out the final closing costs of the entire process. This will tell you how much you will need to have for closing.

Question 8: You receive a voicemail from Eric Loan Officer a few days later asking you to call back as soon as possible to confirm receipt of the final Closing Disclosure. He needs your acknowledgement of receipt by close of business Monday. It is Friday at noon, you...

- a. Call the Loan Officer back as soon as possible
- b. Wait until after lunch and risk forgetting

**Ending Video 1: Loan Approval/Clear to Close/Closing/Congratulations!**

*Nancy Realtor:* Great news! I just heard from Eric Loan Officer that your finances are all verified! He also received your acknowledgement that you have received the Final Closing Disclosure for review by the Federally mandated date in order to close by the contractual date. We are cleared to close! We will be closing as planned at the settlement office that is listed on your sales contract. At this time, you should still refrain from making any drastic financial and employment decisions until after you are done with your paperwork. Congratulations and see you on Friday!

**Ending Video 2: Loan Denial due to wrong choice**

*Nancy Realtor:* Eric Loan Officer just called and told me that you did not qualify for your loan because of financial decisions you made during the loan process. If you do not have the money and ability to repay your loan, the financial institution has the right to deny it based on the information given to them. The sellers won't be happy to hear this news that you just lost your finance. You can try again when you're ready to buy and make better decisions.

**Ending Video 3: Loan closing delayed due to wrong choice**

*Nancy Realtor:* Eric Loan Officer told me that you didn't take any action on specific requests and that it will delay your loan closing. I will have to relay this information to the sellers. They won't be happy to hear this news.

**Appendix F**

## Post-training Questionnaire

1. Between 1-10, with 1 being the least and 10 being the most, how much do you think you know about the Real Estate Lending process (home buying) after going through the training?
2. Which of the following do you think are important in the homebuying process?
  - a. Credit
  - b. Income
  - c. Asset
  - d. Liabilities
  - e. All of the above
3. What is the first step you should take when you're looking for a home?
  - a. Put in an offer on your dream home
  - b. Reach out to your bank for a pre-approval
  - c. Talk to a realtor
  - d. Talk to the sellers
4. Which of the following should you **not** do when in the process of buying a home?
  - a. Save money for your down payment
  - b. Buy a car
  - c. Buy and charge all of the new furniture to your credit card
  - d. B & C
  - e. None of the above
5. What is the order to obtaining a loan?
  - a. Pre-approval, put in an offer, provide documentation, appraisal, final documentation, closing
  - b. Put in an offer, provide documentation, pre-approval, appraisal, final documentation, closing
  - c. Provide documentation, pre-approval, put in an offer, appraisal, final documentation, closing
  - d. Put in an offer, pre-approval, provide documentation, appraisal, closing, final documentation
6. True or False: Financial Institutions are not regulated by the government.
  - a. True
  - b. False

Using the following scale [Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree], rate your opinion of the Branching Video method.

7. The Branching Video changed my opinion on what I knew about the Real Estate Lending process.
8. The Branching Video will help me make future decisions during a Real Estate Lending transaction.
9. The Branching Video helped me understand the Real Estate Lending process.
10. Being able to make decisions in the Branching Video helped me feel more engaged with the process.
11. I am comfortable going through a Real Estate Lending transaction now that I have completed the Branching Video.

12. I feel I will successfully obtain a mortgage now that I have completed the Branching Video.

13. I was satisfied with the platform that the branching videos was held on.

Fill in the Blank

14. What was good about the branching video?

15. What was good about the process? What worked and what can be improved on?

**Appendix G**

## Answers to Pre-Training Questionnaire

Question 1. Are you a homeowner?		
Yes	4	57.14%
No	3	42.86%

Question 2. What is your age?		
18 – 25	2	28.57%
26 – 33	1	14.29%
35 – 41	1	14.29%
42 – 49	3	42.86%
50+	0	0%

Question 3. What is your sex?		
Male	0	0%
Female	7	100%
I do not wish to provide	0	0%

Question 4. What is your race?		
American Indian or Alaska Native	0	0%
Asian	0	0%
Black or African American	0	0%
Native Hawaiian of Pacific Islander	0	0%
White	7	100%
Hispanic or Latino	0	0%
I do not wish to provide	0	0%



Question 5. Between 0-10, with 0 being the least and 10 being the most, how much do you think you know about the Real Estate Lending process (homebuying)?		
0	1	14.29%
1	0	0%
2	2	28.57%
3	2	28.57%
4	0	0%
5	1	14.29%
6	0	0%
7	1	14.29%
8	0	0%
9	0	0%
10	0	0%

Question 6. Which of the following do you think is the most important in the homebuying process?		
Credit	0	0%
Income	1	14.29%
Assets	0	0%
Liabilities	0	0%
<b>All of the Above</b>	6	85.71%

Question 7. What do you think is the first step you should take when you're looking for a home?		
Put in an offer on your dream home	0	0%

Reach out to your bank for a pre-approval	5	71.43%
<b>Talk to a realtor</b>	2	28.57%
Talk to sellers	0	0%

Question 8. Which of the following should you not do when in the process of buying a home?		
Save money for your down payment	0	0%
Buy a car	0	0%
Buy and charge all of the new furniture to your credit card	0	0%
<b>B &amp; C</b>	3	42.86%
None of the above	4	57.14%

Question 9. What do you think is the order to obtaining a loan?		
<b>Pre-approval, put in an offer, provide documentation to Loan Officer, appraisal, final documentation review, closing</b>	5	71.43%
Put in an offer, provide documentation to Loan Officer, pre-approval, appraisal, final documentation review, closing	0	0%
Provide documentation to Loan Officer, pre-approval, put in an offer, appraisal, final documentation review, closing	2	28.57%
Put in an offer, pre-approval, provide documentation to Loan Officer, appraisal, closing, final documentation review	0	0%

Question 10. True or False: Financial Institutions are not regulated by the government.		
True	3	42.86%
<b>False</b>	4	57.14%

### Appendix H

#### Answers to Post-Training Questionnaire

Question 1. Between 0-10, with 0 being the least and 10 being the most, how much do you think you know about the Real Estate Lending process (homebuying) after going through the training?		
0	0	0%
1	0	0%
2	0	0%
3	1	14.29%
4	1	14.29%
5	1	14.29%
6	1	14.29%
7	1	14.29%
8	2	28.57%
9	0	0%
10	0	0%

Question 2. Which of the following do you think is the most important in the homebuying process?		
Credit	0	0%
Income	0	0%
Assets	0	0%
Liabilities	0	0%
<b>All of the Above</b>	7	100%

Question 3. What do you think is the first step you should take when you're looking for a home?		
Put in an offer on your dream home	0	0%

Reach out to your bank for a pre-approval	3	42.86%
<b>Talk to a realtor</b>	4	57.14%
Talk to sellers	0	0%

Question 4. Which of the following should you not do when in the process of buying a home?		
Save money for your down payment	0	0%
Buy a car	0	0%
Buy and charge all of the new furniture to your credit card	0	0%
<b>B &amp; C</b>	7	100%
None of the above	0	0%

Question 5. What do you think is the order to obtaining a loan?		
<b>Pre-approval, put in an offer, provide documentation to Loan Officer, appraisal, final documentation review, closing</b>	7	100%
Put in an offer, provide documentation to Loan Officer, pre-approval, appraisal, final documentation review, closing	0	0%
Provide documentation to Loan Officer, pre-approval, put in an offer, appraisal, final documentation review, closing	0	0%
Put in an offer, pre-approval, provide documentation to Loan Officer, appraisal, closing, final documentation review	0	0%

Question 6. True or False: Financial Institutions are not regulated by the government.		
True	0	0%
<b>False</b>	7	100%

Question 7. Using the following scale, rate your opinion of the Branching Video method.			
The Branching Video changed my opinion on what I knew about the Real Estate Lending process.			
	Subjects	Percentage	Scored Rating
Strongly Disagree	0	0%	0
Disagree	0	0%	0
Neutral	2	28.57%	6
Agree	4	57.14%	8
Strongly Agree	1	14.29%	1
		<b>Mean</b>	<b>2.14</b>
The Branching Video will help me make future decisions during a Real Estate Lending transaction.			
Strongly Disagree	0	0%	0
Disagree	0	0%	0
Neutral	3	42.86%	9
Agree	4	57.14%	8
Strongly Agree	0	0%	0
		<b>Mean</b>	<b>2.42</b>
The Branching Video helped me understand the Real Estate Lending process.			
Strongly Disagree	0	0%	0
Disagree	0	0%	0
Neutral	2	28.57%	6
Agree	4	57.14%	8

Strongly Agree	1	14.29%	1
		<b>Mean</b>	<b>2.14</b>
Being able to make decisions in the Branching Video helped me feel more engaged with the process.			
Strongly Disagree	0	0%	0
Disagree	0	0%	0
Neutral	3	42.86%	9
Agree	3	42.86%	6
Strongly Agree	1	14.29%	1
		<b>Mean</b>	<b>2.29</b>
I am comfortable going through the Real Estate Lending process now that I have completed the Branching Videos			
Strongly Disagree	0	0%	0
Disagree	1	14.29%	4
Neutral	4	57.14%	12
Agree	2	28.57%	4
Strongly Agree	0	0%	0
		<b>Mean</b>	<b>2.85</b>
I feel I will successfully obtain a mortgage now that I have completed the Branching Video.			
Strongly Disagree	0	0%	0
Disagree	0	0%	0
Neutral	5	71.43%	15
Agree	1	14.29%	2
Strongly Agree	1	14.29%	1
		<b>Mean</b>	<b>2.57</b>
I was satisfied with the platform that the branching videos was held on.			

Strongly Disagree	2	28.57%	10
Disagree	3	28.57%	12
Neutral	2	28.57%	6
Agree	0	14.29%	0
Strongly Agree	0	0%	0
		<b>Mean</b>	<b>4</b>

Subject	Freeform Question #1: What was good about the branching video?
1	The information was very thorough and the video animations were engaging. It was nice getting to 'go on my own adventure' and take paths that could be right or wrong but get me back to the place where I need to be with guidance from the Realtor and Lender (which is similar to real life).
2	It was very informative and helpful to get an overview of the whole process.
3	The interaction.
4	The ability to make choices was good.
5	The video wasn't engaging so I didn't pay attention to it while it was playing. With music playing the entire time, I kept waiting for it to start and didn't notice the text boxes until the end.

Subject	Freeform Question #2: What was good about the process? What worked and what can be improved on?
1	The process was good in that there was a clear direction to go through. My main thoughts on improvement were with the video themselves. They were very long to sit and read a tiny text bubble, and I feel it might have been better hearing the characters talk with the important phrases or words being written out, to highlight what was the most important information.
2	Can it come with cheat sheet? On one of the first videos it said 'which one do you want' (pre approval or prequalification) before it presented both options (that's what I remember, at least, I could have missed something).
3	The videos were a bit long. I understand the entertainment factor of the videos, but I am more interested in saving time; therefore, providing the questions with the



	optional answers and moving through the process in that format would have worked better for me. Overall, great information!
4	It seemed like it was too long, the words were hard to read unless I maximized my screen. The way the information was presented was fun although the YouTube pop-ups would have frustrated me if this was a 'real' training I had to take to buy a home.
5	N/A I'm sorry