Fall 2019

The Effect of Viewing Advertisements Depicting Information and Communication Technology on Older Adults' Technology Self-Efficacy

Hollie Brianne Coleman
Western Kentucky University, hollie.coleman841@topper.wku.edu

Follow this and additional works at: https://digitalcommons.wku.edu/theses

Part of the Clinical Psychology Commons, Mental and Social Health Commons, and the Other Psychology Commons

Recommended Citation
https://digitalcommons.wku.edu/theses/3164

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.
THE EFFECT OF VIEWING ADVERTISEMENTS DEPICTING INFORMATION AND COMMUNICATION TECHNOLOGY ON OLDER ADULTS' TECHNOLOGY SELF-EFFICACY

Date Recommended 10-31-19

Dr. Frederick Grieve, Director of Thesis

Dr. Sally Kahlenschmidt

Dr. Adam Lockwood

Cheryl Davis 11/11/19
Dean, Graduate School Date
ACKNOWLEDGEMENTS

I would like to thank Dr. Frederick Grieve, Ph.D., for his assistance and patience through this process. Without his help, I would be lost. I would also like to thank Dr. Greg Perri, Psy.D., for his guidance and help in procuring research participants with this study. Lastly, I would like to thank Skyler Smith, for his help in keeping me on track and supporting me through this long process.
CONTENTS

Introduction.............................................................................................................1
Technology............................................................................................................2
Technology and Quality of Life...........................................................................3
Differential Use Patterns......................................................................................4
Self-Efficacy and Technology Self-Efficacy.......................................................6
Studies Related to Older Adults’ Self-Efficacy..................................................8
Advertisements..................................................................................................11
Limitations of Existing Research.........................................................................13
Current Study.....................................................................................................13
Method................................................................................................................15
Participants..........................................................................................................15
Materials..............................................................................................................16
Procedures...........................................................................................................18
Results..................................................................................................................20
Discussion...........................................................................................................23
References...........................................................................................................27
Appendix A.........................................................................................................31
Appendix B.........................................................................................................37
Appendix C.........................................................................................................41
Appendix D.........................................................................................................43
Appendix E.........................................................................................................44
LIST OF TABLES

Table 1. Participant Demographics Compared to US. Census Data for 2016………………16

Table 2. Descriptive Statistics of Conditions and Filler Tasks……………………………20

Table 3. Means and Standard Deviations of the Dependent Variable Broken Down by

Condition………………………………………………………………………………21
Information and communication technologies (ICTs) are an important part of society today. Older adults often report ICTs as difficult to use and unhelpful; however, ICTs can support older adults’ ability to stay in touch with family and friends across long distances and help increase their quality of life. Unfortunately, training programs targeted at teaching older adults to use ICTs are often costly and time-consuming. The current study attempts to determine whether advertisements depicting older adults using ICTs can be used to increase self-efficacy without the use of training programs.

A within subjects experimental design was completed using an independent variable in which participants viewed two advertisements. Participants were randomly assigned to view an advertisement PowerPoint depicting younger adults using technology first, or randomly assigned to an advertisement PowerPoint depicting older adults using technology first. The dependent variable was a Technology Self-Efficacy Survey developed for the purposes of this study.

Results of a paired samples $t$-test indicated that participants did not rate their self-efficacy higher after viewing the PowerPoint with older adults depicted using technology, as compared to viewing the PowerPoint with younger adults depicted using technology. Although the results were not statistically significant, this research indicated that older
adults generally rated their self-efficacy higher after viewing the PowerPoint with older adults versus the PowerPoint with younger adults. Future research could help determine whether advertisements could be used to increase technology self-efficacy in older adults.
The Effect of Viewing Advertisements Depicting Information and Communication Technology on Older Adults’ Technology Self-Efficacy

Information and Communication Technologies (ICTs) are an important part of current society. Many people today own a cellphone, as well as other forms of communication technologies, including tablets and computers, and are connected with family and friends through various social media platforms (Pachis & Zonneveld, 2018). One population that can be overlooked when it comes to technology is older adults, or those who are age 65 and older. According to the U.S. Census bureau, by the year 2030, one in every five residents of the United States will be of retirement age (2018). This also indicates that older adults will outnumber younger adults, those who are age 64 and younger, by over one million people at that time (U.S. Census Bureau, 2018). There is a perception that older adults are wary of ICTs with the implication that older adults cannot learn, are unwilling to learn, or uninterested in learning how to use them. Additionally, very few of the advertisements on television that are depicted using ICTs are geared toward older populations (Zhang et al., 2006).

The purpose of the current study is to determine whether older adults’ technology self-efficacy will increase after viewing advertisements of older adults using ICTs versus older adults who view advertisements of younger adults, college aged and younger, using ICTs. By investigating this question, the current study intends to reveal whether creating technology advertisements geared toward older adults would benefit them. If technology self-efficacy can rise as a result, it may be possible to increase the quality of life for older adults.
Technology

There are many current forms of technology, ranging from easy to difficult to use, big to small, and inexpensive to expensive (Ramey, 2013). Technology in itself is a very broad term. According to the Merriam-Webster Dictionary (2018), technology can be defined as “the practical application of knowledge especially in a particular area.” In a more relatable definition provided by Ramey (2013), technology involves using newfound material and items to simplify tasks that otherwise would have been difficult to complete. For example, a microwave simplifies the cooking process for those who use it. While cooking a frozen meal may have taken hours to complete in the past using a conventional oven, a microwave can help the user complete this task in a matter of minutes.

There are countless types of technology, including assistive technology that allow users to increase their quality of life through the use of hearing aids, visual aids, or electronic mobility devices (Ramey, 2013). Another important type of technology is ICTs, which includes cellphones, computers, iPads, and any other technologies that allow the user to keep in touch with family and friends socially (Ramey, 2013).

More broadly, ICTs are technologies that are involved with leisure activities including iPhones, hand-held computers, and more (Zorn, Lee & Murphy, 2012). ICTs are slowly replacing other forms of entertainment, such as gardening, board games, and paper reading (Zorn et al., 2012). Leisure activities involving electronics are becoming increasingly popular, especially by those who have retired from jobs and have higher frequencies of free time, such as older adults. ICTs will be discussed for the purpose of the current study.
Technology and Quality of Life

Previous studies have researched the impact that ICTs have on the user’s quality of life. According to Atkinson and Castro (2008), there are multiple factors that help influence the technology user’s life. First, technology increases safety by keeping people in contact when they need assistance. When people have emergencies, they are now receiving help faster than ever before, thus increasing their overall quality of life (Atkinson & Castro, 2008).

Next, ICTs allow people to keep track of and monitor family from greater distances. Family and friends are able to stay in touch through phone calls, new video services, and instant messaging (Atkinson & Castro, 2008). When people are unable to travel because of their medical or financial disadvantages, they are still able to stay in touch with their family and friends though the use of ICTs (Atkinson & Castro, 2008).

Additionally, ICTs now give everyone the opportunity to have information and news provided to them through their handheld devices or computers (Atkinson & Castro, 2008). It is much easier to answer questions in a fraction of the time it would have taken without the use of ICTs. With computers and cellphones, users are able to keep up with politics, weather, sports, social media, and news within minutes (Atkinson & Castro, 2008).

With all of these advantages, both younger and older adults can find that their quality of life is improved through their access to knowledge, their ability to easily stay in touch with their friends and family, and ultimately provide them safety in emergencies. All of these advantages have the opportunity to provide a clear improvement in quality of life for older adult’s if used regularly (Atkinson & Castro, 2008).
Additional evidence for the benefits that ICTs provide older adults is found in a study conducted by Chopik (2016). In this study, 591 participants ages 50 and older with a mean age of 68 were asked to rate their technology use of emails, social networking, and other types of activities. Participants were also asked to rate their health, well-being, and levels of depression. Participants who reported higher use of ICTs also reported higher levels of well-being and lower levels of depression (Chopik, 2016).

**Differential Use Patterns**

According to Smith (2014), while 86% of all adults in the United States between the ages of 18 to 64 use the internet, only 59% of seniors older than 65 use it on a regular basis. Although this is an increase from 2000, when only 14% of adults older than 65 used the internet, it is still well below the usage rates of the rest of the population (Smith, 2014). Overall, younger adults use the internet and other types of technology much more frequently than older adults (Olson et al., 2012). Younger adults use a large repertoire of technology and learn to use these products at a young age. Older adults use a wide variety of technology as well, but they do not use the same types of technology as younger adults, and must learn to use the technology later in life as new technology is created (Olson et al., 2012).

Results from Mitzner and colleagues (2010) indicated that older adults ages 65 and older use a wide variety of technologies in the home, albeit not technologies commonly used by younger generations. There are stereotypes about older adults in which they are understood to be unwilling to use technology or utilize such available resources; however, Mitzner and colleagues (2010) found that older adults use a wide variety of technology, and that this technology has many benefits.
Older adults identified three reasons why they enjoyed technology, including that technology supported their activities, technology is more convenient to use, and the features of technology are helpful (Mitzner et al., 2010). Specifically, in the home, older adults identified that the computer and the microwave were the most frequently used types of technology. When older adults were asked why they dislike technology, inconvenience was often mentioned. Older adults identified that cellphones add a distraction in their lives and add an excessive cost to use them. In addition, they indicated that, over time, technology becomes increasingly difficult and less user-friendly. They also identified features to be a common dislike in technology such as in television programming that provides an overwhelming amount of options. Furthermore, older adults indicated frustration with security and reliability associated with technology. These fears were related to viruses on computers and the unreliability and troublesome nature of technology overall (Mitzner et al., 2010).

This study, as previously mentioned, lists conflicting findings in that the participants found technology to be convenient and inconvenient at the same time (Mitzner et al., 2010). Although all types of technology can be convenient, older adults state that some technology is inconvenient because they find it difficult to use. By raising their self-efficacy surrounding their use of these technologies, they could believe that even these technologies could support them and become helpful to them.

As seen in both studies, older adults readily use ICTs and complete various tasks with the aid of technology, but their limited experience hinders their ability to find some of these technologies readily convenient as younger generations do (Mitzner et al., 2010).
Perhaps by raising self-efficacy surrounding older adults’ use of these technologies, older adults’ quality of life may increase.

**Self-Efficacy and Technology Self-Efficacy**

Self-efficacy is critical in helping older adults to find technologies they currently believe to be inconvenient and unhelpful, and help them to believe them to be convenient and helpful. By raising self-efficacy, these ICTs can positively impact their lives. Self-efficacy was first introduced by Albert Bandura (Bandura, 1977). He described self-efficacy as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura, 1994, p. 2). Self-efficacy can be described as the person’s belief in his or her own ability. People with ratings higher in self-efficacy report overall well-being and lower rates of depression (Bandura, 1994). Self-efficacy plays an important role in providing a sense of confidence in adults. With low rates of self-efficacy, adults believe they are unable to complete tasks at work and home, thus resulting in lower well-being and feelings of depression.

In his research, Bandura introduced four sources of self-efficacy (Bandura, 1994). These four sources include vicarious experience, social persuasion, mastery experience, and physiological states (Bandura, 1994). Each of these sources vary in effectiveness at promoting self-efficacy. It is argued that mastery experience is the strongest of the sources. In this type, people attempt the experience themselves and receive feedback on their performance (Bandura, 1994). Multiple studies have been conducted on the efficiency of mastery experience in regards to technology self-efficacy in older adults, and this will be discussed in length shortly.
The second source of self-efficacy is social persuasion, which involves verbal encouragement. If people are told they can effectively complete a task, they will be more likely to have increased feelings of self-efficacy as a result (Bandura, 1994).

Physiological states also have an impact on people’s feelings of self-efficacy. If people’s mood and health are poor while attempting to complete a task, they will be less likely to develop self-efficacy (Bandura, 1994).

The current study will include vicarious experiences by having participants view others similar to themselves using ICTs (Bandura, 1994). In the current study, self-efficacy will be applied to older adults’ feelings of self-efficacy regarding their ability to use ICTs such as iPads, cellphones, and other forms of technology that help users keep in touch with family, friends, and colleagues. Through watching others effectively use ICTs, older adults will report higher levels of self-efficacy surrounding their technology use.

With the definition of both ICTs and self-efficacy in mind, a new definition for information and communication technology self-efficacy can be described as an individual’s perceived ability to effectively utilize technology. This technology then allows the person to better communicate with loved ones through means of simplifying communication and provides the user with feelings of adequacy. Without ICT self-efficacy, older adults may have feelings of confusion and anxiety when using these technologies and will not feel comfortable using them. ICT self-efficacy is critical to the success of older adults, especially when considering that technology is increasingly used in today’s society (Laganà, 2008). Previous research has investigated self-efficacy in older adults.
Studies Related to Older Adults’ Self-Efficacy

Marquié, Jourdan-Boddaert, and Huet (2002) conducted a study in which they proposed that older adults underestimate their computer knowledge, and, with proper training, self-efficacy would improve. They created a study in which 42 older adults ages 58 to 78 and 49 younger adults ages 18 to 29 were asked to assess their global self-efficacy beliefs and to make judgments about their knowledge in both a general knowledge category and a computer knowledge category. Marquié and colleagues (2002) found that older adults consistently rated their confidence levels lower than that of younger adults in computer-related knowledge. In the general knowledge category, there were no differences between younger and older adults. These findings suggest that older adults have trouble with confidence when concerned with computer-related technology. This could hinder their ability to perform in situations in which they are uncomfortable with technology and not explicitly taught how to use it (Marquié, Jourdan-Boddaert, & Huet, 2002).

Another study conducted by Woodward and colleagues (2010) examined a six-month training program for the use of ICTs in older adults ages 60 and older. Woodward and colleagues (2010) proposed that the use of technology can decrease loneliness in older adults who are separated from family. The researchers conducted the training program by first testing participant’s current ability to use computers. Both the beginner group and the intermediate group met every two weeks for a total of 11 classes (Woodward et al., 2010). Those participants who did not have a computer were provided with one at cost to the study (Woodward et al., 2010). Through the use of the training program, they examined whether using technology impacts loneliness and social
relationships. The types of classes provided included learning the basics of computer use, learning to use video and voice chat through the Internet, and how to create and maintain a blog (Woodward et al., 2010). They found that the older adults who reported using ICTs, the higher their self-efficacy ratings. (Woodward et al., 2010).

Results of the Woodward and colleagues (2010) study indicated that the training provided to the experimental group helped increase their feelings of competence, even three months after the training program ended. Woodward and colleagues (2010) stated that these findings show that older adults are willing and able to learn the changing technologies around them and that, when provided proper training, they can become competent in learning and using the new technology. The authors indicated that, through the use of one-on-one instruction time, older adults can benefit and learn at an efficient pace (Woodward et al., 2010).

Laganà (2008) conducted a similar study in which she investigated the effects of computer training on self-efficacy in 32 older adults. Laganà rationalized that, because Internet use in older adults is lower than younger adults, training programs could help increase self-efficacy in participants. The theory Laganà (2008) introduced during her study was social cognitive theory by Bandura (1971). With the utilization of social learning theory, results of this study indicated that computer and Internet use is critical to the success of older adults (Laganà, 2008). Laganà included both an experimental and control group in her study. The experimental group was tested before being given a six-week training program on computers. After the six weeks, the experimental group was tested again. The control group was told they were “waitlisted” for the computer training program and were asked to take a test at the beginning of six weeks and at the end of six
weeks (Laganà, 2008). Each participant in both groups was then given the Computer User Self-Efficacy Scale and the Older Adults’ Attitudes toward Computers and the Internet Scale (Laganà, 2008). During the training program, older adults were provided with instructions on how to send e-mails, and to find information on topics of their interest on the Internet, as well as writing messages to friends through Instant Messaging applications (Laganà, 2008).

Results indicated that there was a significant difference between the pretest and the posttest scores (Laganà, 2008). These findings indicate that there were significant differences in computer self-efficacy between the experimental and control groups following the training, as well as increased attitudes toward computers and the Internet. Those older adults who participated in the training reported higher self-efficacy than those who were in the control group. The author indicated that the overall takeaway from this study was that providing training for older adults in the use of technology can be beneficial to their self-efficacy (Laganà, 2008).

Czaja and colleagues (2016) also conducted a three-month training program in which 150 participants ages 65 and older were provided with a training program developed by the researchers named PRISM. PRISM is a support system that assists older adults in computer and Internet use. This program was used with older adult who were at risk of developing difficulties as a result of social isolation. The purpose of providing this training was to decrease their feelings of isolation while living in independent housing away from friends and family (Czaja et al., 2016). All participants were given a miniature desktop computer with a keyboard and mouse, the PRISM application, and a printer. Participants were encouraged to learn how to access their local senior center websites and
use email regularly. All participants were provided weekly check-ins and were given access to help whenever needed (Czaja et al., 2016).

Results indicated that those older adults who participated in the PRISM program reported significant less loneliness and higher overall well-being six months after completing the training program (Czaja et al., 2016). Through mastery experiences that involved completing a lengthy and costly training program, the participants were able to significantly raise their feelings of self-efficacy and decrease feelings of loneliness surrounding their living situation (Czaja et al., 2016).

Advertisements

Advertisements surround consumers constantly and can influence behavior as a result. According to Zhang and colleagues (2006), each person is exposed to over 500 advertisements per day, which equates to roughly 182,000 advertisements per year. Although older adults will outnumber children by the year 2030 (U.S. Census Bureau, 2018), only 5.9% of all advertisements from seven chosen national magazines included advertisements depicting older adults (Zhang et al., 2006).

According to Zhang and colleagues (2006), cultural values depicted in advertisements are important because they influence purchasing decisions for consumers, and ultimately are a significant force in influencing the values that the consumers find important. Researchers found that none of the cultural values represented in the majority of advertisements depicted with younger adults contained the same cultural values as the advertisements depicting older adults (Zhang et al., 2006). While the advertisements with younger adults depicted values such as enjoyment, youth, independence, and technology, the advertisements depicting older adults held values such as health, utilitarian values,
and economy (Zhang et al., 2006). The least frequent values for older adults included technology, which was featured in only 2.1% of advertisements depicting older adults (Zhang et al., 2006). Although research indicates that advertisements for older adults are positively portrayed, these values are different from the advertisements for younger adults, depicting overall less enjoyment, and are more health related (Zhang et al., 2006).

Previous research has investigated the impact that advertisements have on buying behavior in consumers. Haider and Shakib (2017) conducted a study in which they concluded that advertisements do have an impact on buying behaviors. The 544 participants in this study, whose ages ranged from 18 to 73, indicated that familiarity with the product was one of the most important factors when buying products (Haider & Shakib, 2017). In other words, consumers who remember viewing advertisements of certain products think those products are more trustworthy and reliable than products they have never viewed in advertisements before. Considering that only 2.1% of advertisements depict older adults using technology, it may be more difficult for older adults to find ICTs to be trustworthy and reliable.

As mentioned previously, while 86% of all adults between the ages of 18 to 64 use the internet, only 59% of seniors ages 65+ use it on a regular basis (Smith, 2014). Use of technology in older adults continues to stay low and is not improved by the fact that advertising depicts primarily younger adults using technology. If more ICT advertisements were geared toward older adults, it is possible that their self-efficacy would rise after viewing these advertisements, and as a result, they would be more likely to buy and use ICTs.
Limitations of Existing Research

There are some limitations to this area of research. Studies in this area of older adult’s technology self-efficacy is slightly dated. While all of the previously discussed research was conducted within the last 10 years, ICTs advance quickly (Chandler, 2013). Future research should be conducted to assess technology self-efficacy in a rapidly advancing technological world. Unfortunately, training programs that involve mastery experiences for older adults are costly and time consuming (Woodward et al., 2010; Czaja et al., 2016). An alternative route that is cost effective and less time consuming would be preferable. If older adults’ self-efficacy can be raised through advertising and vicarious experience, it would be a simple solution to a difficult problem.

In addition, if these advertisements do indeed raise older adult’s self-efficacy, this would help highlight the importance of including older adults’ in advertisements depicting the use of ICTs such as cellphones and laptops. Currently, older adults are frequently not included in advertisements with ICTs (Zhang et al., 2006). Future research could shed light on the benefits of changing advertising decisions.

Lastly, the source of self-efficacy used within the previous listed studies included only mastery experiences. The researchers created lengthy and costly training seminars to help improve technology self-efficacy. In the current study, vicarious experience will be used to hopefully provide an easier way to increase technology self-efficacy in older adults.

Current Study

To investigate the aforementioned issue, the current study will investigate whether older adults who view advertisements depicting ICT usage by older adults have
higher perceptions of technology self-efficacy than when viewing advertisements of younger adults using ICTs. By investigating this question, it can be determined whether vicarious experiences can be used to help older adults feel more confident in using ICTs. As a result, older adults could be more likely to purchase such technologies and could have an increase in their quality of life by staying in touch with their family, friends, and colleagues, having access to more information through the use of the Internet, and even staying safer in emergencies.

The current study intends to add new and up-to-date research on older adults and technology self-efficacy. Current research is lacking in older adults’ self-efficacy as a result of vicarious experience through viewing advertisements. The specific hypothesis under study is that older adults’ self-efficacy will increase after viewing advertisements depicting older adults using ICTs as compared to advertisements depicting younger adults using ICTs.
Method

Participants

All 40 participants were the age of 65 and older. The ages of 65+ were chosen for the purpose of this study because it was the most commonly used criterion for previous studies investigating older adult’s technology self-efficacy and is considered to reflect when most adults have met retirement age in the United States (Laganà, 2008; Mitzner et. al, 2010) Participants were recruited from the community through snowballing technique, as well as through a community living center in a large mid-South city.

Demographics. The participants’ demographics, including age, gender, race, education level, relationship status, and reported use of technology were collected. Participant’s ages ranged from 65 to 88 with a mean age of 75. Table 1 lists the participant’s demographics compared to the United States Census data taken in 2016 (U.S. Census Bureau, 2016). Not listed within the table is the education level for participant’s in this study. 40% of participants reported they completed some college, while 30% reported that they graduated high school, 15% reported completing a college degree, 12.5% reported completing some high school, and 2.5% reported completing a master’s degree.

As seen in Table 1, in each of the areas, this population differed from the overall population, especially in the race category. Only two races were represented in this study, which is not similar to the overall population.
Table 1. Participant Demographics Compared to U.S. Census Data for 2016

<table>
<thead>
<tr>
<th></th>
<th>Current Study (%)</th>
<th>U.S. Census Data 2016 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65</td>
<td>44.21</td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>55.78</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>97.5</td>
<td>82.2</td>
</tr>
<tr>
<td>African American</td>
<td>2.5</td>
<td>12.3</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>0.0</td>
<td>17.8</td>
</tr>
<tr>
<td>Native American</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Asian</td>
<td>0.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>70</td>
<td>56.7</td>
</tr>
<tr>
<td>Widowed</td>
<td>22.5</td>
<td>22.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>7.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.0</td>
<td>5.6</td>
</tr>
<tr>
<td>Separated</td>
<td>0.0</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Materials

Advertisements. Two slideshows depicting various advertisements were created to show the participants (See Appendix A). Each image for both the older adult PowerPoint and the younger adult PowerPoint were carefully selected for similarity. Interspersed between the advertisements were motivational statements related to rehabilitation patients in an inpatient facility. The purpose of these quotes was to provide deception so the participants would not understand the aim of this study while data was being collected. The first slide show includes several images showing only older adults using various types of technology including tablets, smart phones, laptops, and gaming equipment. Every participant watched both PowerPoints, and each participant was randomly assigned to view the older PowerPoint first, or the younger PowerPoint first. The second slide show included the same general images showing only younger adults using technology with the same motivational statements from the older adult’s
PowerPoint presentation interspersed. Both slideshows have an equal number of slides and used the same language and technologies previously discussed. Each PowerPoint was as similar as possible. Each PowerPoint is timed to change between slides after approximately eight seconds.

**Technology Self-Efficacy Scale.** A new self-efficacy measure was created for the purpose of this study (See Appendix B). This scale was modeled off of the Web User Self-Efficacy scale (WUSE) created by Eachus and Cassidy (2006). This scale was created with updated and new forms of technology different from that included in the WUSE scale. It is intended to evaluate feelings of self-efficacy in using various forms of common technology, including but not limited to, smartphones, video games, and the usage of social media. The scale itself consists of 13 items intended to assess the self-efficacy of the user, with eight filler questions interspersed between the items. The filler questions were used to continue with the deception previously discussed. The scale was created using a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The measure includes items such as, “I can find information I am looking for online” and “I can fix my Internet access problems.” A higher score indicates higher self-reported self-efficacy.

**Filler Tasks** Two filler tasks were included in this study (See Appendix C). The first was the Geriatric Depression Scale, and the second filler test was the Rey 15 Item Test. These filler tasks did not include exclusionary criteria and were used as filler tasks only to maximize the length of time between each PowerPoint viewed by each participant.
**Geriatric Depression Scale.** The Geriatric Depression Scale (Greenberg, 2019) is a 15-item test designed to assess depression levels in adults age 65 and older. Each of the items in this test is answered as either “yes” or “no.” and includes questions such as, “Do you feel that your life is empty?” and “Do you feel that your situation is hopeless?” A score greater than 5 on this scale is suggestive of depression (Greenberg, 2019).

**Rey 15 Item Test.** The Rey 15 Item Test is an assessment designed to evaluate attention and feigned memory impairment under the ruse of a memory test (Podell, 2011). Participants who complete this assessment are told that this task is a brief memory measure, but this measure is instead assessing the attention of the participant. Participants are asked to memorize 15 letters and numbers within the span of 15 seconds. Participants are then asked to draw as many of the letters and numbers as they can remember on a blank page. Scores below 6 on this measure suggest inattention to the task or feigned memory impairment (Podell, 2011).

**Procedures**

A within subjects experimental design was used where the independent variable is participants viewing both advertisements. Participants were randomly assigned to view the advertisement PowerPoint depicting younger adults using technology first, or randomly assigned to the advertisement PowerPoint depicting older adults using technology first. The dependent variable is the Technology Self-Efficacy Survey.

IRB approval was completed as of April 18th, 2019, and data collection began shortly after (See Appendix D). Participants were brought into a quiet small room set up with a desk and a laptop computer to view each PowerPoint presentation. Each participant was asked to fill out a short paper demographic questionnaire. After
completion of the demographics, they were asked to watch a timed slide show of advertisements and motivational statements. Participants were told they were watching a slideshow that would be used in a motivational speech for those patients who are in rehabilitation centers to ensure that participants were unaware of the reasoning behind the study while completing the surveys. Each participant viewed either the younger adult’s PowerPoint, or the older adult’s PowerPoint.

After completion of the first PowerPoint, each participant was given the Technology Self-Efficacy Survey interspersed with filler questions that ask each participant how motivational they found the presentation to be. After completing the survey, participants were given two filler tasks. These tasks were the Geriatric Depression Scale and the Rey 15-item memory test. After completing the filler tasks, each participant watched the remaining presentation and were asked to again fill out the Technology Self-Efficacy Survey interspersed with questions about feelings of motivation after viewing the presentation. Prior to leaving, they were thanked for their participation, and given a debriefing form. Each participant was given the choice to be entered into a drawing to win a $100 Wal-Mart gift card if they wish.
Results

Preliminary Analysis

Two participants were excluded from the analysis, as they did not complete all items; thus, the following analyses were completed with 38 participants. Results from both the young and the old surveys were summed, as shown in Table 1. Cronbach’s Alpha was calculated for the self-efficacy scale at .91 for the older adults PowerPoint technology self-efficacy scale response and .90 for the younger adults PowerPoint technology self-efficacy scale response, showing that the items had excellent internal consistency (Hunsley & Mash, 2008).

Table 2: Descriptive Statistics of Conditions and Filler Tasks

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old</td>
<td>51</td>
<td>126</td>
<td>92.05</td>
<td>20.95</td>
<td>.91</td>
</tr>
<tr>
<td>Young</td>
<td>37</td>
<td>121</td>
<td>91.74</td>
<td>20.45</td>
<td>.90</td>
</tr>
<tr>
<td>GDS</td>
<td>0</td>
<td>8</td>
<td>1.38</td>
<td>1.60</td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>3</td>
<td>15</td>
<td>9.75</td>
<td>3.86</td>
<td></td>
</tr>
</tbody>
</table>

Note: Old = Scores on the self-efficacy measure after viewing older people in the PowerPoint. Young = Scores on the self-efficacy measure after viewing the younger people in the PowerPoint. GDS = The Geriatric Depression Scale. Memory = The filler memory task. SD = Standard Deviation.

Hypothesis Testing

The specific hypothesis under study is that older adults’ self-efficacy will increase after viewing advertisements depicting older adults using ICTs as compared to advertisements depicting younger adults using ICTs. Results of a paired samples t-test
indicated that participants did not rate their self-efficacy higher after viewing the PowerPoint with older adults depicted using technology \((M = 51.55; SD = 18.71)\), as compared to viewing the PowerPoint with younger adults depicted using technology \((M = 51.20; SD = 18.77)\), \(t\) \((40) = 0.38, p = .71\).

**Exploratory Analysis**

Additional analyses were completed to investigate differences in responses from when both groups of participants watched the first PowerPoint presentation. Those participants who watched the older adult PowerPoint first were compared to those participants who watched the younger adult PowerPoint first. Results of an independent samples \(t\)-test indicate that there were no significant differences between those participants who watched the older adult PowerPoint first \((M = 54.84; SD = 17.35)\) and those participants who watched the younger adult PowerPoint first \((M = 49.29; SD = 18.06)\), \(t\) \((40) = 0.99, p = .51\).

Table 3: Means and Standard Deviations of the Dependent Variable Broken Down by Condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>TSES (SD)</th>
<th>GDS (SD)</th>
<th>Mem (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition 1</td>
<td>54.84 (17.35)</td>
<td>5.44 (1.04)</td>
<td>10.26 (3.63)</td>
</tr>
<tr>
<td>Condition 2</td>
<td>49.29 (18.06)</td>
<td>5.39 (1.14)</td>
<td>9.29 (4.08)</td>
</tr>
</tbody>
</table>

Note: Condition 1 = Participants’ viewed the older PowerPoint first. Condition 2 = Participants’ saw the younger PowerPoint first. TSES = Technology Self-efficacy Scale GDS = Geriatric Depression Scale filler task. Mem = Rey-15 item memory test filler task.
Additionally, an Independent Samples $t$-test was conducted on the two filler tasks to determine whether there were any differences between the groups. No significant differences were found between the groups on either the Rey-15 item memory test, $t(40) = 0.80$, $p = .37$ or the Geriatric Depression Scale, $t(40) = 0.15$, $p = .66$. 
Discussion

The purpose of this study was to determine if watching PowerPoints depicting older adults using technology increased each participant’s self-efficacy, or in other words, if using vicarious experiences could increase technology self-efficacy in older adults. Previous research has been conducted using mastery experiences that includes workshops and classes that increase older adult’s feelings of self-efficacy (Laganà, 2008; Woodward et al., 2010; Czaja et al., 2016) By completing these workshops, older adults feel more comfortable using technology such as computers, smart phones, and video messaging. Helping older adults feel more comfortable with using technology is important because it provides older adults the ability to stay in touch with family and friends easier, to assist them in answering questions and problems through the Internet, and even the opportunity to provide a quick response if they need help. When dealing with difficult life circumstances or medical issues, this could help older adults alleviate stress and anxiety surrounding these issues.

The current study intended to determine whether watching PowerPoints depicting older adults using technology could increase each participant’s self-efficacy without classes and workshops. If it is determined that viewing advertisements helps to raise self-efficacy, this could be a much easier and less time-consuming process than large courses that involve mastery experiences which could possibly take days or weeks to complete. The PowerPoints for this study were created depicting both younger adults and older adults using various types of technology to determine if watching those who appear similar to themselves helps increase self-efficacy.
Results from the study indicate that watching PowerPoints depicting older adults using technology did not significantly raise participants’ self-efficacy. Although the data indicated that older adults rated their self-efficacy higher after watching the older adult PowerPoint versus the younger adult PowerPoint, the results were not statistically significant.

In addition to the primary analysis, an exploratory analysis was conducted by comparing each group on the first PowerPoint they viewed. The results indicated that participants who watched the older adult PowerPoint first did not rate their self-efficacy significantly higher than those older adults who watched the younger adult PowerPoint first. As is the previous analysis, the data indicated that the participants did rate their self-efficacy higher, although these results were not statistically significant.

In relation to previous research, the current study did not find an easier and alternative route to raising self-efficacy in older adults. Previous research indicated that technology education programs through the use of mastery experiences are capable of raising feelings of self-efficacy in older adult’s use of technology, as indicated in studies by Woodward and colleagues (2010), Laganà (2008), and Czaja and colleagues (2016). Each of these studies indicated that through costly and time-consuming efforts, older adults can raise their feelings of self-efficacy surrounding ICT’s. The current study aimed to determine whether a more cost effective and less time-consuming method could be conducted to raise self-efficacy in older adults.

**Limitations**

A few limitations were noted in this study. First, the sample of older adults used in this study lacked overall diversity, as seen previously in Table 1. The overwhelming
majority of those who participated were Caucasian, and many other ethnicities were not included in this study. As seen in Table 1, the population in this study is not representative of the overall population (U.S. Census Bureau, 2016). Additionally, the relationship status and gender differences between the U.S. Census Bureau data and the current study’s data is apparent. Future research should focus on a diverse sample that is more representative of the overall population.

In addition, two of the participants were dropped from the analysis, as they did not complete all required items for this study. This possibly impacted the ability to find significant results in this study. The greater the number of participants, the higher the chances of finding significant results.

Future research should focus on a diverse sample that is more representative of the overall population. Additionally, the relationship status and gender differences between the U.S. Census Bureau data and the current study’s data is apparent. Future research should focus on a diverse sample that is more representative of the overall population.

Next, a measure of self-efficacy was created for the purpose of this study, meaning that it was not previously tested in other research. This could have impacted the results in this study. Future research should focus on expanding the current survey or creating and widely testing a survey on self-efficacy to ensure the reliability and validity of the measure.

**Future Research**

Future research in this area should attempt a between subjects study. A within subjects design was conducted for the current study to minimize the number of participants needed. By attempting a between subjects study, researchers may be able to find significant results when participants are only watching one PowerPoint at a time, not two. It is possible that, by watching both PowerPoints in one sitting, participants’ answers were impacted, depending on which presentation they viewed first. Also, completing the study with a larger number of participants may impact the ability to find results in a
between-subjects study. It would be interesting to determine if results could be significant with a higher number of participants, such as in the exploratory analysis conducted in the current study that only included 20 participants in each condition.

Creating a more cost effective and less time-consuming way to increase self-efficacy in older adults’ feelings toward ICTs is still needed. Previous research has conducted mastery experiences to increase feelings of technology self-efficacy. Future research should determine if shorter programs using mastery experiences could effectively raise technology self-efficacy. Alternatively, future research might benefit from altering the vicarious experience depicted in this study by providing advertisement videos of older adult’s using technology.

**Conclusion**

Although significant results were not found in this study, conclusions can be drawn that could impact future research. As stated previously, the results for the current study were not statistically significant; however, participants’ reactions to the PowerPoints were in the correct direction. Older adults generally reported higher self-efficacy after viewing the PowerPoint presentation that depicted individuals similar to themselves performing tasks with technology as compared to when participants viewed the PowerPoint with individuals dissimilar to themselves. These results were not clinically significant, but this information may be useful in that, through future research and the recommendations listed above, it could be determined whether self-efficacy could be raised through visual presentations such as advertisements.
References


Chopik, W. J. (2016). The benefits of social technology use among older adults are mediated by reduced loneliness. *Cyberpsychology, 19*, 551-556. DOI: 10.1089/cyber.2016.0151


APPENDIX A

When you have a disability, knowing you are not defined by it is the sweetest feeling

— Anne Strike

However difficult life may seem, there is always something you can do and succeed at.

— Stephen Hawking
I am different but not less.

– Temple Grandin

Recovery is about progression not Perfection

– Unknown

The road to success is always under construction

– Arnold Palmer
It does not matter how slow you go as long as you do not stop.
-Confucius

Recovery is a process. It takes time. It takes patience. It takes everything you’ve got...
-- Unknown
When you have a disability, knowing you are not defined by it is the sweetest feeling

– Anne Strike

However difficult life may seem, there is always something you can do and succeed at.

– Stephen Hawking
I am different but not less.
   - Temple Grandin

Recovery is about progression
not Perfection
   - Unknown

The road to success is always
under construction
   - Arnold Palmer
It does not matter how slow you go as long as you do not stop.
-Confucius

Recovery is a process. It takes time. It takes patience. It takes everything you've got...
-- Unknown
APPENDIX B

The purpose of this questionnaire is to examine feelings of motivation toward PowerPoints. The questionnaire is divided into two parts. In Part 1 you are asked to provide some basic background information about yourself and your experience with various forms of technology, if any. Part 2 aims to elicit more detailed information by asking you to indicate the extent to which you, personally, agree or disagree with the statements provided.

Part 1:

Age: _________________

Sex:  M    F

Ethnicity (please circle one):
White
Hispanic or Latino
Black or African American
Native American or American Indian
Asian/Pacific Islander
Other

Education Level (please circle one):
Some high school
High school graduate
Some college
Bachelor’s Degree
Master’s degree

Relationship Status (please circle one):
Single, never married
Married or domestic partnership
Widowed
Divorced
Separated

Current or previous occupation: ____________________

Experience with technology (please circle one):
none
very limited
some experience
quite a lot
extensive
Part 2:

Below you will find a number of statements concerning how you feel about the PowerPoints and technology. Please indicate the strength of your agreement/disagreement with the statements using the 6-point scale shown below. Tick the box (i.e., between 1 and 6) that most closely represents how much you agree or disagree with the statement. There are no correct responses, it is your own views that are important.

I can use a smartphone/tablet (Iphone/Ipad) to stay in touch with friends and family.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This presentation was motivational for people in rehabilitation settings

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I feel confident using Email.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This presentation included relevant motivational quotes

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I can watch a YouTube video.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I would recommend this presentation for motivational purposes

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I can pay my bills online.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I like this presentation

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The presentation had appropriate images
strongly disagree 1 2 3 4 5 6 strongly agree

I can find information I am looking for online.
strongly disagree 1 2 3 4 5 6 strongly agree

I can create a simple web page.
strongly disagree 1 2 3 4 5 6 strongly agree

I can communicate with friends and family online
strongly disagree 1 2 3 4 5 6 strongly agree

I can use social media (e.g. Facebook, Twitter, Instagram, etc.)
strongly disagree 1 2 3 4 5 6 strongly agree

This presentation made a meaningful impression on me.
strongly disagree 1 2 3 4 5 6 strongly agree

I can fix my Internet access problems
strongly disagree 1 2 3 4 5 6 strongly agree

This presentation had appropriate motivational statements
strongly disagree 1 2 3 4 5 6 strongly agree

I can use a GPS to find my way to a destination
strongly disagree 1 2 3 4 5 6 strongly agree

I can play video games online
strongly disagree 1 2 3 4 5 6 strongly agree
I can create a Word Document
strongly disagree  1  2  3  4  5  6  strongly agree

I am more motivated after watching this presentation
strongly disagree  1  2  3  4  5  6  strongly agree

I can buy items online (e.g. Amazon, Walmart, etc.)
strongly disagree  1  2  3  4  5  6  strongly agree
APPENDIX C

Geriatric Depression Scale: Short Form

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life? **YES** / **NO**
2. Have you dropped many of your activities and interests? **YES** / **NO**
3. Do you feel that your life is empty? **YES** / **NO**
4. Do you often get bored? **YES** / **NO**
5. Are you in good spirits most of the time? **YES** / **NO**
6. Are you afraid that something bad is going to happen to you? **YES** / **NO**
7. Do you feel happy most of the time? **YES** / **NO**
8. Do you often feel helpless? **YES** / **NO**
9. Do you prefer to stay at home, rather than going out and doing new things? **YES** / **NO**
10. Do you feel you have more problems with memory than most? **YES** / **NO**
11. Do you think it is wonderful to be alive now? **YES** / **NO**
12. Do you feel pretty worthless the way you are now? **YES** / **NO**
13. Do you feel full of energy? **YES** / **NO**
14. Do you feel that your situation is hopeless? **YES** / **NO**
15. Do you think that most people are better off than you are? **YES** / **NO**

Answers in **bold** indicate depression. Score 1 point for each bolded answer.

A score > 5 points is suggestive of depression.
A score ≥ 10 points is almost always indicative of depression.
A score > 5 points should warrant a follow-up comprehensive assessment.

Source: [http://www.stanford.edu/~yesavage/GDS.html](http://www.stanford.edu/~yesavage/GDS.html)
This scale is in the public domain.

---

The Hartford Institute for Geriatric Nursing would like to acknowledge the original author of this Try This, Lenore Kurlowitz, PhD, RN, CS, FAAN, who made significant contributions to the field of geropsychiatric nursing and passed away in 2007.
MEMORIZATION OF 15 ITEMS TEST

A  B  C
1  a  
O  b  c
I  II  III
APPENDIX D

INFORMED CONSENT DOCUMENT

Project Title: The Effect of Viewing Advertisements Depicting Information and Communication Technology on Older Adult's Self-Efficacy

Investigator: Hollie Coleman, Department of Psychology, hollie.coleman@topper.wku.edu

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your signed agreement to participate in this project.

You must be 18 years old or older to participate in this research study.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

1. Nature and Purpose of the Project: This study is examining the motivational quality of two separate PowerPoint Presentations.

2. Explanation of Procedures: Participants will watch two timed slideshows and complete a survey twice with eight parts. The first part is demographics—seven questions that ask about participant characteristics. After viewing the first advertisement, the third part has 21 questions, asking about feelings of motivation related to technology. The fourth part is a 15-question survey asking about participants’ depression levels. The fifth part is a short test to memorize 15 items. The sixth part asks each participant to watch the second video. The seventh part asks each participant to complete the 21-question survey again. Lastly, the participants will be debriefed. The entire process should take 15 to 20 minutes to complete.

3. Discomfort and Risks: There are no known risks to participating in this study.

4. Benefits: Participants in this study could be entered to win a $100 Wal-Mart gift card if they so choose.

5. Confidentiality: Participation in the current study will be entirely confidential and names and identifying information will not be associated with data resulting from participation in this study. Records will be viewed, stored, and maintained in private, secure files only accessible by the P.I. for three years following the study, after which time they will be destroyed.

6. Refusal/Withdrawal: No one will be coerced into participating in this study. If you decide not to participate, your refusal will not affect your future dealings with the University. You will not be asked to pay any money for your participation. You will not be penalized for refusal.

I have read and understood the above information and agree to participate in the study.

Signature of Participant

Date

Witness

Date

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD

Robin Pyles, Human Protections Administrator

TELEPHONE: (270) 745-3360

WKU IRB# 19-388
Approved: 4/18/2019
End Date: 4/1/2020
EXPEDITED
Original: 4/18/2019
DATE: April 18, 2019

TO: Hollie Coleman
FROM: Western Kentucky University (WKU) IRB

PROJECT TITLE: [1423979-1] The Effect of Viewing Advertisements Depicting Information and Communication Technology on Older Adult’s Self-Efficacy
REFERENCE #: IRB 19-388
SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: April 18, 2019
EXPIRATION DATE: April 1, 2020
REVIEW TYPE: Expedited Review

Thank you for your submission of New Project materials for this project. The Western Kentucky University (WKU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a MINIMAL RISK project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of April 1, 2020.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Robin Pyles at (270) 745-3360 or irb@wku.edu. Please include your project title and reference number in all correspondence with this committee.