PREDICTING ADOPTION OF VIRTUAL REALITY TECHNOLOGY BY COLLEGE OF AGRICULTURAL FACULTY IN ASSOCIATION OF AMERICAN UNIVERSITIES

A Thesis

by

JOHN MARK PALMER III

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Chair of Committee,	Robert Strong Jr.
Committee Members,	Timothy Murphy
	Jeffrey Wiegert
	Jennifer Zoller
Head of Department,	Mathew Baker

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ABSTRACT

The use of virtual platforms is a phenomenon that has only begun to expand throughout the COVID-19 pandemic. Modern technologies such as drones, Oculus Rift, GoPro, and PlayStation VR are popular versions and, in most cases, are used primarily for recreational purposes. Recreational use provides many immersive experiences, but these technologies can provide meaningful educational opportunities in agriculture. Agriculture education coupled with virtual reality technology has yet to be fully explored, which is indicated by the lack of availability of published literature exploring virtual reality adoption in agriculture. This research focuses on three Association of American University (AAU) Agricultural and Life Sciences departments across the United States. A Qualtrics survey was administered to assess stakeholder perceptions and those results were analyzed to determine data outcomes. The findings from these data provide revealed perceptions of virtual reality by AAU Colleges of Agricultural and Life Sciences faculty. Faculties behavioral intentions to adopt and use virtual reality were low, which provides a foundation for future research. Mean scores across constructs enabled the researchers to conclude that faculty need to become aware of the educational value provided by virtual reality technology. Through the provision of new innovative learning opportunities, we can strive to solve future agricultural problems, such as the expected food crisis of 2050.

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NOMENCLATURE

AAU	Association of American Universities
C-TAM-TPB	Combined TAM-TPB
IDT	Innovation Diffusion Theory
MM	Motivational Model
MPCU	Model of PC Utilization
NSCRC	National Student Clearinghouse Research Center
SCT	Social Cognitive Theory
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAUT	Unified Theory of Acceptance and Use of Technology
VR	Virtual Reality

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CHAPTER I

INTRODUCTION

Transformational and Lifelong Learning

Transformational learning is defined as the process to enhance students' proficiency of fundamental concepts while changing their attitudes, principles, and skills (Mezirow, 1997; Slavich & Zimbardo, 2012). Transformational learning in education is seminal, as is demonstrated by Texas A&M University's (TAMU) strategic plan calling for its enhancement (TAMU, 2020). A subset of the strategic plan is the promotion of lifelong learning and development (TAMU, 2020). Lifelong learning embraces formal, informal, and non-formal learning environments (Laal & Salamati, 2012). In a study that analyzed lifelong learning motivations in the United States and China, Chen and Liu (2012) concluded that elder generations of these countries have differences in their beliefs and manners concerning lifelong learning. However, Chen and Liu (2012) discerned that younger American generations have varying motivations for lifelong learning as compared to younger Chinese generations. It was concluded that American students can define their academic study freely, therefore inducing lifelong learning motivations (Chen & Liu, 2012).

Formal education, defined by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), is institutionalized education through public and private entities within a country's education system (UNESCO, 2011). UNESCO recognized that formal education is also made possible through vocational education (UNESCO, 2011). Vocational education within agriculture sciences is embodied in programs like the National FFA Organization (FFA) as Connors (2013) established that agricultural education professionals recognized the

FFA endorsed vocational agriculture education in young men. Varkuleviciene and Motiejunaite (2013) assessed how green classes teaching plant names and characteristics are suitable educational practices for learning. Varkuleviciene and Motiejunaite (2013) concluded that green classes are not only ideal but encourage lifelong learning.

Non-Traditional Teaching Methods in Formal Education

Non-traditional teaching methods' influence on student learning have long since been studied in statistics, as Johnson and Dasgupta (2005) explored differences in teaching methods among statistics students over fifteen years ago. Results suggested that students preferred non-traditional teaching programs rather than traditional classrooms (Johnson & Dasgupta, 2005). Non-traditional teaching methods are defined as innovative methods encompassing technology, animation, and special effects that promote interactive, self-directed learning opportunities (Parasuram et al., 2014; Strong & Williams, 2014). Self-directed learning experiences challenge a student to take on the responsibility and initiative for their specific education (Strong et al., 2013). Safapour et al. (2019) identified that flipped classrooms are a common non-traditional teaching method for classroom instruction. Flipped classrooms provide a self-directed learning environment for increased student learning (Akçayır & Akçayır, 2018; Lai & Hwang, 2016). Hew and Lo (2018) discerned that a flipped classroom approach used in health education led to increased learning. Holistically, flipped classroom approaches have demonstrated faster, increased learning and encouraged students to focus on studying (Safapour et al., 2019).

Virtual reality technologies as a vessel of disseminating information is recognized as a method that enables students to explore curricula traditional approaches cannot (Hamilton et al., 2021). Lin and Luan (2018) acknowledged that higher education foreign language professionals are predicted to deliver instruction with assistance of virtual reality. Virtual reality offers

consumers a link between the physical and cyber world, as Liberatore and Wagner (2021) stated that immersive virtual reality technologies provide insight to virtual elements of the physical realm. A challenge associated with virtual reality is producing outputs to increase learning within an approach that facilitates activities to things not possible in the physical world (Scavarelli et al., 2021).

Sustainable Development Goals

Byers et al. (2021) investigated how virtual reality can be used as a tool for future paralympic games. The purpose behind the research conducted was to adhere to sustainable development goals produced by the United Nations (UN) (Byers et al., 2021). Byers et al. (2021) discerned how innovative technologies have roles in achieving sustainable development for global benefit. The National Institute of Health (NIH) strategic plan (2020) offered solutions and practices targeted by the organization to make significant progress in human health. Within five themes identified by the NIH (2020); virtual reality was indicated to have a role in biomedical sciences. The NIH (2020) claimed there has been a growth in data due to biomedical advancements through artificial intelligence (AI) and virtual reality technologies. Virtual reality can assist in achieving strategic goals set by other prominent organizations outside the NIH.

The National Science Foundation (NSF) endorsed 10 “Big Ideas” linked to emerging opportunities for science in the United States. The first strategic objective derived from the NSF is the “Future of Work at the Human-Technology Frontier” (NSF, 2022). In the description of this objective, the NSF delineated the need for technology-based research encouraging lifelong learning (NSF, 2022). Virtual reality helps promote lifelong transformation learning to users globally. UNESCO identified 17 strategic goals with positive global impacts. Sustainable development goals four and nine are goals which feature avenues for virtual reality. Sustainable

development goal four aspired to promote educational opportunities for all (UNESCO, n.d.) UNESCO (n.d.) recognized that promoting education for sustainability and delivering more technical/vocational training to learners are important components of this goal. Coppedge and Strong (2013) suggested establishing vocational virtual goals should allow program developers in addressing learner's dissimilar needs. Virtual reality can provide a sustainable education, as Otunbayeva and Mehra (2018) suggested that virtual reality technologies are seen as a bridge to educational opportunities. Otunbayeva and Mehra (2018) noted that virtual reality use will become prevalent in future education.

Sustainable development goal nine focuses on industry, infrastructure, and innovation (UNESCO, n.d.). UNESCO (n.d.) assessed that allocating research for each countries' industries and infrastructure can improve technological advancements. Furthermore, UNESCO (n.d.) determined that researchers encouraging innovation can lead to technological upgrades within industries. Thornhill-Miller and Dupont (2016) argued for innovation-focused researchers to be educated about VR due to the accessibility and contributions it can provide. Su and Cheng (2019) utilized a virtual chemistry lab to assess student achievement within the sustainable innovation experiential learning model. Results indicated this virtual lab produced significant learning results in students who used the lab (Su & Cheng, 2019). Berg and Vance (2021) determined that professionals across different companies utilize VR to produce immersive experiences needed, therefore discerning that VR is applicable to industries.

SARS-CoV-2 (COVID-19)

The SARS-CoV-2 (COVID-19) pandemic challenged the world of medicine in unprecedented ways, prompting the widespread adoption of novel telemedicine technologies. Clipper (2020) proposed that medical technology adoption occurred faster than ever documented

during the early stages of the pandemic. Telemedicine emerged as a critical technology used to deliver medical support to patients while mitigating the risk of COVID-19 exposure of in-person visits (Calton et al., 2020). Bokolo (2020) reported that telemedicine had numerous advantages, such as minimizing COVID-19 spread, decreasing the amount of time to diagnose patients, reducing costs of medical equipment use, and providing additional preventative measures to keep doctors and patients healthy during the pandemic. Telemedicine is well suited for use during pandemics when proper infrastructure is available and clinician-patient contact is possible (Hollander & Carr, 2020).

COVID-19 Challenges

COVID-19 has affected individuals in many areas of health and wellness. Rozenberg et al. (2020) reported that men are 60% more likely to die from COVID-19 infection than women. White (2020) stated that the mental health of young men and boys will be at increased risk due to the COVID-19 pandemic, declaring that these mental health problems could be a result of male masculinity societal pressures. Furthermore, Yildirim and Eslen-Ziya (2020) acknowledged that daily routines of women in academia were unfavorably affected by the pandemic. The pandemic also fueled certain environmental issues in the year 2020 (Silva et al., 2021). Countries were forced to lockdown for undefined periods of time, leading to limited human interaction, more at-home living, and dependance on plastics (Silva et al., 2021). As a result, Silva et al. (2021) determined that the pandemic contributed to an overabundance of plastic pollution worldwide. Even testing and properly diagnosing COVID-19 had its challenges, since it is an airborne pathogen. In Bangladesh, it was determined that the number of days awaiting testing results from COVID-19 testing centers was problematic, especially in the rural regions (Rahaman et al.,

2020). According to Surkova et al. (2020), COVID-19 infection reports in the United Kingdom were adversely affected by many false-positive COVID-19 tests.

In an effort to mitigate risk, education systems transitioned to remote instruction during the pandemic. Using online technology as a dissemination tool was imperative, as seen by Patton's call for important systems transformation (Patton, 2020). Nesenbergs et al. (2020) emphasized remote learning not only to survive the crisis, but to adapt to the reality of ongoing and future pandemics. However, Nesenbergs et al. (2020) stated virtual reality is not capable of replacing in-person classes, as students' grades suffered when it was implemented. Within education and virtual reality, limited accessibility and understanding of these technologies had negative impacts (Lindner et al., 2020). A lack of teacher understanding of and training in distance education also resulted in negatively affecting student learning, quality of instruction, and student satisfaction (Lindner et al., 2020).

Technology Adoption from a Pandemic Era

Clipper (2020) identified that telemedicine and artificial intelligence technologies were originally used to make medical care easier but became essential as a response to the COVID-19 pandemic. Clipper (2020) determined that technology adoption is occurring at a faster rate due to a higher incentive to adopt technology for the purposes of alleviating viral-related risks. Zoom, a technology based on a virtual meeting, saw an amazing uptick in stakeholder use. Evans (2020) reported that between December 2019 and April 2020, Zoom had an increase thirty times their average, going from an average of 10 million to 300 million meetings. Standaert et al. (2021) reported that the percentage of meetings rose from 40 percent virtually to close to 100 percent virtual during the pandemic.

Businesses were forced to shift their work environment to a work-from-home format, as Akpan et al. (2021) determined that small businesses were able to use technologies to continue business activities during the COVID-19 lockdown. Hacker et al. (2020) concluded that virtual conferencing systems, like Zoom or Google Meets, provided an outlet to facilitate everyday activities because of the COVID-19 pandemic. Al-Maroof et al. (2020) found that students' behavioral intentions to adopt the Google Meets technology in the pandemic was higher when there were no other applications available to limit the spread of the COVID-19 virus. Zulherman et al. (2021) found that behavioral intention drivers for adopting and using Zoom during the COVID-19 pandemic was personal motivation and participants perceived self-efficacy. Due to the COVID-19 pandemic, personal factors to limit exposure and transmission of the virus helped increase technology adoption. An increase in online virtual meetings proved essential in continuing daily lives, but also provided a platform which businesses could use to help serve stakeholders.

Virtual Reality

Virtual reality (VR) according to Howard and Van Zandt (2021), is a three-dimensional digital depiction of an actual or imagined space. Goh and Sandars (2020) acknowledged that virtual reality immersive experiences are intended to replicate real-life experiences while being disseminated through headsets or mobile technologies. Virtual reality technologies allow stakeholders to immerse themselves within a technological experience from any desired location. Having readily available virtual experiences at one's' fingertips can provide an escape to different parts of the world, different academic or learning experiences, or even into simulated game-like experiences. Sarkady et al. (2021) revealed that tourists used virtual reality as a temporary "travel" tool during the COVID pandemic. Sarkady et al. (2021) determined that perceived

usefulness had a hand in determining participant's behavioral intentions of using VR as a travel substitute during the pandemic. Virtual reality can provide training exercises for emergency services or military tactics and provide a non-traditional educational opportunity. Within the realm of medicine, Barteit et al. (2019) discerned that advantages VR Head Mounted Displays (HMDs) provide are a repeatable, real-life training without a real patient, a new way to disseminate medical knowledge, and a way to lessen financial or ethical burdens by virtually providing cadavers and other equipment. Educationally, virtual reality technologies can provide new realms that allow for new experiences across formal and non-formal education.

In the last decade, virtual reality technologies have been exponentially more readily available in a variety of formats. In 2014, Mark Zuckerberg, the CEO of the social media site, Facebook, bought the rights to Oculus for an estimated two billion dollars (Luckerson, 2014). Sony, creator of the PlayStation and PlayStation VR, announced that there are plans to develop a new headset for the newest PlayStation Model, the PS5 (Warren, 2021). In April of 2021, Dogra reported that 7.8 million PlayStation 5 units were sold since November of 2020 (Dogra, 2021). Investors, such as Facebook and Sony, can see the future of these digital virtual technologies. Digital technologies as modes for learning have been crucial for not only millennials, but also Generation Z. In 2007, Apple's iPhone 1st generation device was launched internationally. Technologies such as the Kindle (2008) and the iPad (2010) soon followed suit. With open access to a world of knowledge, these technologies became popular as means of providing education. Applications have been made on Apple products as a means of providing children education. Kindle provided stakeholders with a virtual library, accessible anywhere, if they had an internet connection to download the books. With the application of virtual libraries and open access to a world of knowledge, students have welcomed the idea of E-Learning.

E-Learning

Palvia et al. (2018) reported that online enrollments in the U.S. had increased for fourteen consecutive years regardless of economic status or overall college enrollment. Additionally, Seaman et al. (2018) reported that the number of students enrolled on campus had dropped by over a million from the span of 2012 to 2016. Lederman (2018) reported that the proportion of undergraduate students at Title IV-eligible institutions who were enrolled in at least one distance education course had risen from 27.1 percent to 30 percent in 2016, and the percentage of graduate students enrolled at least partially online had grown from 32.5 percent to 36.6 percent in 2016. Community college students were more likely than undergraduates at four-year public and private institutions to be enrolled in at least one online course (Lederman, 2018).

The National Student Clearinghouse Research Center [NSCRC] (2021) reported that higher education enrollment fell in the spring of 2021because of the COVID-19 pandemic. The NSCRC reported that student spring enrollment fell more than a half-million, which was a reported seven times greater decline than the previous year. The NSCRC (2021) noted that undergraduate students accounted for the decline, but saw an increase in graduate student enrollment, with a reported 4.6 percent increase. Dhawan (2020) determined that by combining face-to-face lectures with blended learning/flipped classrooms, student learning outcomes increased. The COVID-19 pandemic has allowed students access to further education and continue studies, but in the comfort of their home (Ali, 2020).

Within agricultural sciences literature, digital learning has been examined in a variety of lenses from students to faculty. Student acceptance of mobile learning (Irby & Strong, 2013; Strong et al., 2013; Strong et al., 2013), and faculty competencies to teach students through mobile devices (Irby & Strong, 2015b) has been examined previously with colleges of

agriculture faculty and students. College of agriculture student evaluations of learning courses have been assessed (Huynh et al., 2019; Irby et al., 2012; Strong et al., 2012). An evaluation of student learning outcomes from virtual reality dissemination in a horse judging and selection curricula has been assessed (Strong et al., 2022). The use of virtual learning in agricultural extension contexts has been widely examined in multiple programs (Shelle et al., 2018; Stotz et al., 2019; Strong, 2012b; Strong & Alvis, 2011). Strong et al. (2022) evaluated student learning from participating in a VR equine selection and judging lesson. However, college of agriculture and life sciences faculty's virtual reality acceptance and use in formal courses has not been examined. Evaluating student and stakeholder impact based on program participation is a necessity in the agricultural sciences (Lee et al., 2021; Miller, 2018; Strong & Harder, 2011d).

VR Adoption in Education

The advancement of VR technology and associated tools have practical applications to daily life (Paszkiewicz et al., 2021). One area of life is education, as Lopez et al. (2021) says that the educational innovation of including virtual reality can be easily translated to the classroom. To encourage VR adoption within education, Fernandez (2017) identified how training of instructors can assist in the implementation of virtual reality technologies. VR use in education has many benefits as Martín-Gutiérrez et al. (2017) revealed an increase in student motivation and engagement, improved learning, ease of access, and content interaction to be advantages of using virtual reality technologies in education. Fabris et al. (2019) identified that virtual reality has potential as an educational tool and can improve students' educational experience. Baxter and Hainey (2019) investigated higher education students' perceptions of using virtual reality. Results from the study showed that students perceived virtual reality's use in academia has

benefits and recommended that researchers must investigate what educational programs can benefit most from these technologies (Baxter & Hainey, 2019).

VR Adoption in Nutrition Education

Nutrition education has been defined as a sequence of strategies designed to assist the adoption of nutrition choices and related behaviors beneficial to one's health and well-being (Contento, 2007). Feeding America, a hunger-relief organization housed in the United States, proposed plans to ensure access to healthy food for people battling hunger and make headway toward ending hunger by 2025 (Simmons, 2018). In terms of the ongoing COVID-19 pandemic, individuals' nutrition has been found to impact their immune system (Naja & Hamadeh, 2020). McGuirt et al. (2020) called for nutrition education programs to reach low-income individuals and explored the potential of these approaches to increase access and appeal. Virtual reality has been discerned as an alternative nutrition dissemination tool, as McGuirt et al. (2020) found that virtual reality technology can have the potential to influence dietary behaviors. The innovativeness of virtual reality technology has stimulated interest in nutrition education, specifically regarding food portions. (Isgin-Atici et al., 2020). Virtual reality technologies have been found to be successful learning tools, as Paramita et al. (2021) determined that virtual reality technology application led to users more quickly learning nutritional information. This claim is further supported by the research of Chanlin et al. (2019), who found that virtual reality technologies helped student awareness of dietary information. By understanding that virtual reality technologies can be applied to fields such as nutrition, stakeholders can see the value of these technologies in other areas such as agriculture.

VR Adoption in Agriculture

The United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) defined Extension as a branch of agriculture that provides non-formal education to farmers and other citizens of rural and urban areas (Strong & Harder, 2010a; USDA NIFA, n.d.). Beam and Hawkins (2020) stated that VR-based technologies provide a practical form of disseminating agricultural education and extension programs, therefore broadcasting knowledge. Universities can utilize VR technology to capture content, permitting stakeholders access to experiences (de Regt et al., 2020). Khurramov (2020) discerned that digital agriculture will meet global challenges, such as food security. Ahn et al. (2022) recommended interdisciplinary and transdisciplinary food security inquiries are needed. Khurramov (2020) also confirmed that digitalized agriculture allows for productive, adaptable systems applicable to climate change. Digital agriculture technologies have provided agriculturalists with avenues to help fight global crises such as climate change and global food challenges.

The opportunities within agriculture for virtual reality have become evident during the current pandemic. With the application of virtual reality combined with agricultural sciences, Yu et al. (2009) stated that farmers will be able to understand and grasp agricultural land management techniques and can increase learning outcomes. Ojado-Gonzalez et al. (2017) reports that tractor accidents were a leading cause of agricultural-related fatalities. As a result of this phenomenon, Ojado-Gonzalez et al. (2017) created and outlined a plan to implement a tractor driving virtual reality simulator. Results from their simulator showed that participants relayed a positive experience, due to a perception of safety while driving. It was also revealed that participants felt that they need more training in occupational safety (Ojado-Gonzalez et al., 2017). Lindner et al. (2016) recommended that additional research and better understanding of

new technologies, practices, and products could help agricultural educators develop and implement teaching and learning processes which would contribute to sustainable agricultural systems needed in the future. This is in accordance with Priority 2 of the *National Research Agenda* for the American Association for Agricultural Education. The design of this research is to investigate Association of American Universities (AAU) faculties' behavioral intentions of using VR. By investigating the acceptance and usage of these technologies, we can further understand how to promote virtual technologies for adoption in agricultural sciences curricula.

CHAPTER II

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Diffusion Innovation Theory

Everett Rogers' (2003) diffusion of innovations theory provides a framework for understanding how novel ideas can spread throughout a population. Rogers (2003) defined diffusion as the process by which innovations are adopted in social channels over time by individuals. Rogers' (2003) diffusion of innovations theory has been used in technology-based innovation dissemination research, as Min et al. (2018) used Rogers' theory to identify how the Uber app was disseminated among Midwestern college students. Rogers (2003) identified the concept that diffusion consists of several subsections that allow for innovation adoption. Opinion leaders and change agents are people within a social system who adopters look toward for innovation acceptance (Rogers, 2003; Strong, 2012a). To institute change, these agents are sought out by an organization and are tasked with identifying opinion leaders of a social system (Rogers, 2003). Once the opinion leaders are identified, adoption can occur more rapidly if the opinion leaders choose to adopt, because their followers can become early adopters of the innovation (Olsovsky et al., 2021; Wynn et al., 2013).

Heterophilic members of communities and homophilic members are a section of diffusion Rogers (2003) noted as important. When two people of a social system are very similar in characteristics, they are referred to as homophilic, and the opposite would make them heterophilic (Strong & Israel, 2009). In a corporate office, the CEO would be heterophilic to the board of trustees, but each member of the board would be homophilic towards each other.

Rogers (2003) noted how these relationships can play a key role in driving innovation adoption, or how this phenomenon can be a barrier to adoption.

Technology Acceptance Model

The theory behind what drives stakeholders to adopt new technologies can be sourced back to three models, one central model comprised of the other two. Davis (1989) developed his Technology Acceptance Model (TAM) based on both the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) and the Theory of Planned Behavior (TPB) (Ajzen, 1985). The TRA (Fishbein & Ajzen, 1975) inferred that one's behavior is volitional, with individuals believing they can execute this behavior at any point in time (Staats, 2004). The TPB (Ajzen, 1985), is a psychosocial theory which explained how individuals make logical decisions. The TPB (Ajzen, 1985) is comprised of two sub-concepts that determine behavior. The first consists of control beliefs and the second, perceived power (Staats, 2004). The TAM (Davis, 1989) predicts the intention to use accessible technology by predicting two stakeholder perceptions: its usefulness and its ease of use. Davis (1989) described perceived usefulness as the extent of what a person believes about using a technology that could improve job performance (Davis, 1989).

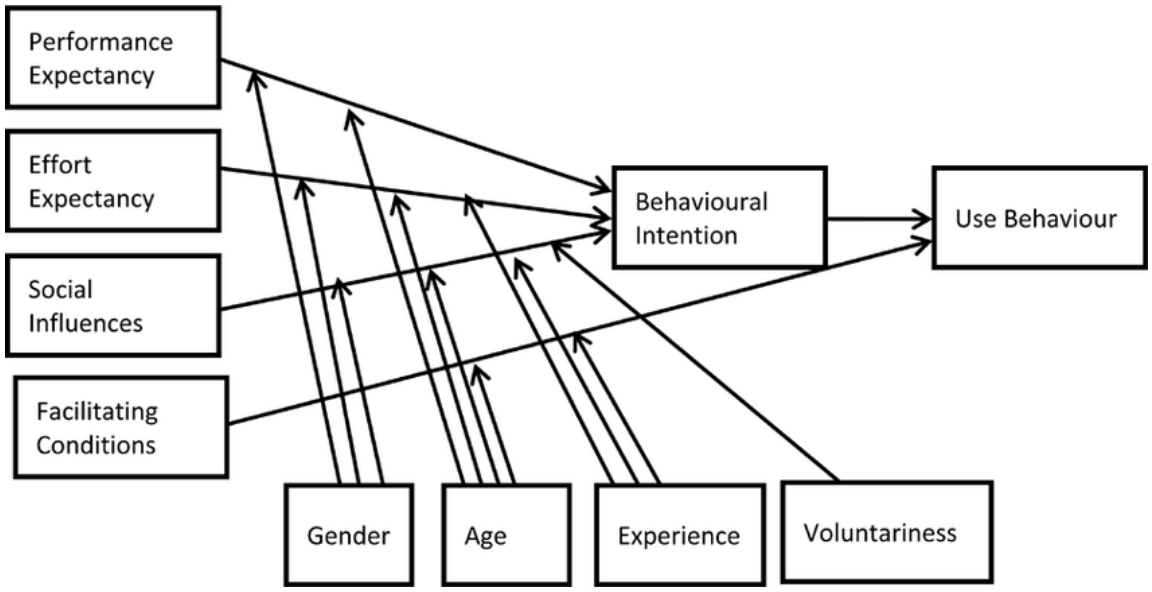
Unified Theory of Acceptance and Use of Technology

Venkatesh et al. (2003) developed the Unified Theory of Acceptance and Use of Technology (UTAUT). This model was developed to combine relative known theories concerning technology acceptance and formed one central theory. Venkatesh et al. (2003) recognized that researchers are presented a choice of theories when evaluating literature and conducting studies, with models such as the Theory of Planned Behavior (Fishbein & Ajzen, 1975) and Technology Acceptance Model (Davis, 1989). Venkatesh et al. (2003) established

there was a need for a unified theory; therefore, created a universal model deemed the Unified Theory of Acceptance and Use of Technology (see Figure 1).

Figure 1.

Venkatesh et al.'s (2003) illustration of the UTAUT theory.

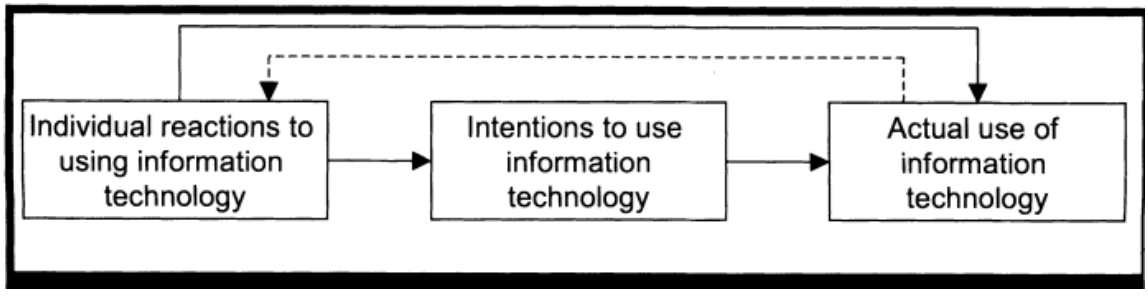


Venkatesh et al. (2003) comprised the unified theory with four core objectives. Objective one examined existing technology acceptance models (Venkatesh et al., 2003). The objective's goal was to evaluate current knowledge about individuals' acceptance of new technologies. Therefore, Venkatesh et al. (2003) reviewed eight key models. Objective two compared the eight models Venkatesh et al. (2003) chose to evaluate. Venkatesh et al. (2003) conducted a comparison of the eight models using data from four organizations. This comparison provided Venkatesh et al. (2003) with the baseline evaluation of the individual models against which the unified model could be compared. The third objective proposed by Venkatesh et al. (2003) was to develop the Unified Theory of Acceptance and Use of Technology (UTAUT). After reviewing the similarities and differences across the eight models, Venkatesh et al. (2003) formulated the

unified model. Objective four was set forth to test Venkatesh et al.'s (2003) UTAUT model, therefore providing proof that a unified model could be established.

The eight models assessed by Venkatesh et al. (2003) were the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), theory of planned pehavior (TPB) (Ajzen, 1985), motivational model (MM) (Davis et al., 1992), technology acceptance model (TAM) (Davis, 1989), combined TAM-TPB (C-TAM-TPB) (Taylor & Todd, 1995), model of pc utilization (MPCU) (Thompson et al., 1991), innovation diffusion theory (IDT) (Rogers, 1995), and the social cognitive theory (SCT) (Bandura, 1986). Figure 2 depicts the general basis of the theoretical frameworks of the models that Venkatesh et al. (2003) reviewed. The researchers reviewed the eight models and determined their constructs, which totaled thirty-two. Applying a three-item scale designed by Davis et al. (1989), the behavioral intention to use the technology could be measured. A seven-point Likert-type scale was utilized to evaluate the thirty-two constructs. A score of *1* registered on the negative end of the scale, and a score of *7* fell on the positive end. Venkatesh et al. (2003) considered perceived voluntariness as a manipulatory variable, where *1* represented non-voluntary and *7* represented completely voluntary.

Figure 2.
Basis of Theoretical Framework of the 8 Models reviewed by Venkatesh et al. (2003)



The UTAUT was formulated after recognizing that seven out of the total thirty-two identified constructs were statistically significant when determining the intention or usage within

the models. Of the seven, Venkatesh et al. (2003) theorized that four of the constructs are significant predictors of the adoption of new informational technologies. Those four identified constructs are performance expectancy, effort expectancy, social influence, and facilitating conditions. According to Venkatesh et al. (2003), performance expectancy can be the strongest predictor of intent to adopt the technology. Performance expectancy was defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance (Venkatesh et al., 2003). Effort expectancy can be described as the perception of how effortless the technology can be used. Three sub-paradigms of effort expectancy were the perceived ease of use, complexity of use, and the overall ease of use (Venkatesh et al., 2003). Social influence is portrayed as the social pressure an individual feels from others regarding using a new technology (Venkatesh et al., 2003). Venkatesh et al. (2003) defined Facilitating conditions as the belief an individual has in the technology due to the infrastructure.

UTAUT in Modern Studies

Irby and Strong (2013) used the UTAUT model to frame a study on undergraduate students' behavioral intentions pertaining to mobile technology in agricultural education courses. Irby and Strong (2013) found that students' level of self-efficacy and self-directedness influenced the adoption of mobile technology. Molina-Maturano et al. (2021) applied the UTAUT model to better understand farmers' adoption of mobile apps created for agriculture use. Using the UTAUT as the frame, Strong et al. (2014a) reported Mexican banks utilized Twitter to disseminate loan information to farmers to expediate the loan application and approval process. Molina-Maturano et al. (2021) found that performance expectancy was the strongest predictor of Mexican farmers' intentions to adopt agricultural information applications. Puspitasari et al. (2019) developed a study applying the UTAUT model to the adoption of an information

licensing service. Puspitasari et al. (2019) discovered that yet again, the factor that most prominently influenced the adoption of the information system technology was performance expectations. Puriwat and Tripopsakul (2021) applied the UTAUT model proposed by Venkatesh et al. (2003) to social media adoption for businesses. This study was conducted to investigate what factors can affect social media adoption for business purposes. Puriwat and Tripopsakul (2021) found that, with the application of the UTAUT model, performance expectancies, effort expectancies, and social influence all had a positive impact on the behavioral intention to adopt social media for business purposes amongst Thai people. Almaiah et al. (2019) utilized Venkatesh et al.'s (2003) UTAUT model to assess factors determining students' adoption of mobile learning technologies. Almaiah et al. (2019) revealed that perceived information quality, compatibility, trust, and availability of resources are motivators of stakeholder adoption of mobile learning systems. The UTAUT model applied to modern studies has demonstrated that Venkatesh et al. (2003) was correct in defining the need for a unified model. In almost all cases, the performance expectancy of technology is the strongest predictor of stakeholder adoption of new informational/educational technologies. By applying the UTAUT model, researchers can better evaluate what technologies will be adopted by stakeholders (Venkatesh et al., 2003).

VR Adoption Factors

Lee et al. (2020) identified five constructs of virtual reality that can influence individual's intentions to use VR technologies as gaming devices. Beneficial factors identified by Lee et al. (2020) were flow, relaxation, and spatial presence. It was discovered that the three positive factors were significant predictors of intention to use the technology (Lee et al., 2020). Marks and Thomas (2021) conducted review evaluation on design, costs, rates of teaching adoption, and student experiences over five semesters. Increased student learning and enrollment are positive

results stemming from VR adoption. Marks and Thomas (2013) witnessed a 250 percent increase in student numbers and 71.5 percent of students described they had enhanced learning outcomes due to a laboratory that adopted VR.

Within the realm of virtual reality, much like any innovative idea or technology, shortcomings will become evident. Cybersickness is a form of motion sickness that can be associated with virtual reality (Gavgani et al., 2018). Seibert and Shafer (2018) identified cybersickness as a primary barrier to the adoption of and production of virtual reality head mounted displays (HMDs). Yildirim (2020) discovered that cybersickness is still an issue regarding the adoption of the Oculus Rift and HTC Vive. Clifton and Palmisano (2020) determined that cybersickness is a major barrier to the adoption of head mounted display virtual reality systems and that it could even be induced with limited interaction. Both the Oculus Rift and HTC Vive are popular head mounted displays within the virtual reality gaming industry showing that even fun, immersive experiences can have drawbacks. Negative adoption factors are not only found in technologies made for recreational purposes. Cook and Grime (2020) acknowledged that predetermined applications already within virtual reality technologies are a barrier for VR technology adoption within academia. In the case of Best et al. (2020), it was determined that the cost and low performance based on expectations can be a factor in the low adoption of VR in clinical settings.

Bandura's Self-Efficacy Theory

Bandura (1986) presented his theory to holistically theorize people's self-efficacy. Bandura (1986) determined 4 constructs that are influential to self-efficacy scores: performance accomplishments, vicarious experiences, verbal persuasion, and physiological states (emotional arousal). Within the idea of cognitively understanding self-efficacy, Bandura (1986) reported

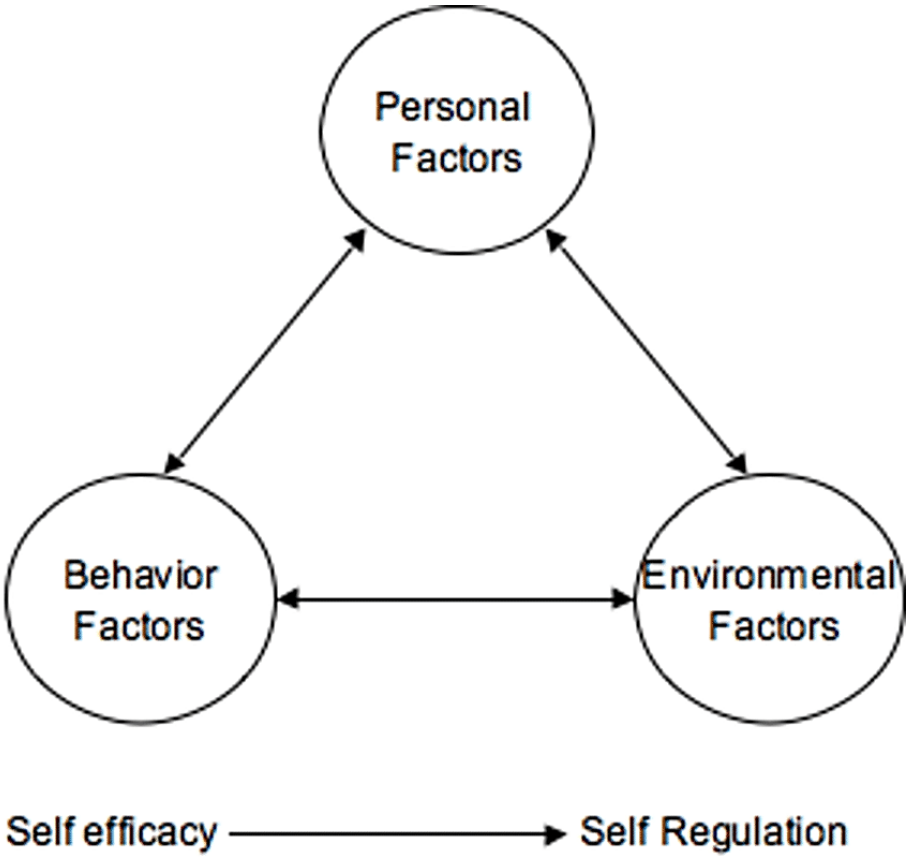
that enactive, vicarious, exhortative, and emotive sources are important factors. Bandura (1977) identified that performance accomplishments are a major influential factor due to mastery experiences. When a person succeeds, their personal expectations increase, and the inverse happens when failure is a result (Bandura, 1986). However, Bandura (1986) also reported that when someone has repeated success, the consequence of failure lessens. The pattern in which failure occurred was determined to be key in assessing failure effects (Bandura, 1986).

Bandura's (1977) broke down performance accomplishments into four modes of induction. Bandura (1977) stated that self-efficacy is not just sourced from personal successes. Vicarious experiences, which rely on social comparisons, are less dependable to assess self-achievement than personal accomplishments (Bandura, 1977). Bandura (1977) acknowledged that modeled behavior with established outcomes is a better indicator of efficacy than ambiguous behavior. Investigations in successful vicarious experiences have provided evidence that this phenomenon causes positive behavioral change (Bandura, 1977; Kazdin, 1974, 1975; Strong et al., 2013). Verbal persuasion is suggested to be appropriate due to its accessibility and ease of use (Bandura, 1977). It is also noted that efficacy assessment by this mode is weaker than personal accomplishments because of a lack of authentic experiential learning (Bandura, 1977). Emotional arousal was identified as a construct which helped define perceived self-efficacy (Bandura, 1977). Bandura (1977) states that high emotional levels can debilitate performance and suggested that individuals can expect success when not troubled by emotions. Emotional responses such as fear produce further preemptive emotional responses (Bandura, 1977). Bandura (1977) does indicate that performance modeling can diminish negative emotional arousal (Bandura & Barab, 1973; Bandura et al., 1969; Blanchard, 1970). Bandura (1986)

determined that one's self-efficacy is related to the cognitive, social, and behavioral skills integrated into behavioral choices (see Figure 3).

Figure 3.

Bandura's Self-Efficacy Model (Bandura, 1986)



Bandura's Self-Efficacy in Research

In academic aligned self-efficacy studies, McKim and Velez (2016) utilized Bandura's (1977) self-efficacy theory to assess the existence of self-efficacy in agricultural education. McKim and Velez (2016) found that mastery experiences were not ideal for increasing agricultural teachers' self-efficacy. Vicarious experiences were found to be an influential factor in improving teacher self-efficacy (McKim & Velez, 2016). Irby and Strong (2013) determined that agricultural education instructors can allow students to use mobile technologies in

classrooms. Students' understanding of mobile devices in learning activities can caused an increase in self-efficacy (Irby & Strong, 2015a). Hidiyah (2020) discovered that providing feedback through mobile technologies in learning can improve student self-efficacy. Mondellini et al. (2021) found that when using virtual reality, self-efficacy in students is merely affected by the task given, not the environment. Nissim and Weissblueth (2017) investigated virtual reality as a basis for teacher training self-efficacy. Findings from this study suggested that virtual reality learning environments with student teachers enhanced their self-efficacy and increased innovativeness (Nissim & Weissblueth, 2017). Ding et al. (2020) used virtual reality head mounted display (HMD) technologies to provide negotiating skills to users. Self-efficacy scores in students increased, as with knowledge, when using the virtual reality headsets (Ding et al., 2020). Bumguardner et al. (2014) studied how blogging amongst agricultural students can impact their self-efficacy. Effort expectancy, performance expectancy, and behavioral intentions were deemed to be significantly correlated with agricultural students' self-efficacy (Bumguardner et al., 2014).

Cooperative Extension's brand is the educational programs developed and delivered to stakeholders (Harder & Strong, 2010) but there is a lack of staff mentoring programs (Strong & Harder, 2009). Palmer and Strong (2022) utilized self-efficacy to understand farmers' mental health impacts to better improve Extension programs. The imperative of Extension to improve programmatic impacts on stakeholders has been widely documented (Baker et al., 2022; Harder et al., 2009; Strong & Irani, 2011; Strong & Israel, 2009). In Extension focused inquiries, Ganpat et al. (2016) investigated factors affecting self-efficacy and the adoption of information communication technologies (ICTs) by extension personnel and Ahn et al. (2022) examined radio stations as ICTs in West African rural communities. ICTs have been defined as the

hardware and software associated with computers, telephones, radios, and televisions (Ganpat et al., 2016; Harder et al., 2013; McCole et al., 2014; Strong et al., 2014b). Using Bandura's (1980) self-efficacy theory, Ganpat et al. (2016) were able to determine that effort expectancy, social influence, education, and extension agents' professional level were all significant predictors of self-efficacy. Strong and Harder (2010a) used teachers from the Florida Master Gardener program to examine levels of self-efficacy in voluntary teaching. Using Bandura's (1993) self-efficacy theory, Strong and Harder (2010a) were able to determine levels of self-efficacy among program instructors and outline a plan to enhance self-efficacy. Strong and Harder (2011a; 2011b) used Tschannen–Moran and Woolfolk Hoy's (2001) Teachers Sense of Efficacy Scale (TSES) to identify how particular characteristics of the Florida Master Gardener program instructors can influence self-efficacy. Strong and Harder (2011c) were able to determine that levels of efficacy could be improved within the program. It was also determined that education level had a significant influence on instructional efficacy (Strong & Harder, 2010b). This further added to the appropriateness of Bandura's (1977) self-efficacy theory for assessing agricultural faculty self-efficacy levels concerning virtual reality.

Purpose and Objectives

This research was designed to understand what Association of American Universities (AAU) agriculture department faculties behavioral intentions are regarding applying VR in academic classes. Due to the void in the literature regarding virtual reality adoption within agricultural sciences, the researcher will investigate the following objectives:

1. Determine descriptive scores for behavioral intentions, performance expectancy, effort expectancy, social influence, self-efficacy, and facilitating conditions of AAU Agriculture faculty.

2. Examine the relationship between tenure track and non-tenure track faculty and the UTAUT constructs regarding VR acceptance and use.
3. Analyze differences among faculty characteristics respective to the UTAUT constructs.
4. Investigate the variances among the independent variables (performance expectancy, perceived effort expectancy, perceived social influence, perceived facilitating conditions, self-efficacy, gender, age, academic rank, and years of teaching experience) on faculty behavioral intentions to adopt VR in academic courses.

Once the objectives have been tested the researcher will then be able to provide the missing link between virtual reality technology acceptance and use in agricultural sciences to assist in predicting future adoption. Through the provision of literature, this research will provide future researchers and practitioners with evidence concerning virtual reality adoption within institutions teaching agriculture.

CHAPTER III

METHODOLOGY

Research Design

This research was built upon quantitative cross-sectional survey research methodology, utilizing an online survey for data collection. Cross-sectional surveys are assessments which collect data on a predetermined population at one instance of time (Fraenkel et al., 2019). The key objective behind employing survey research is to generate attributes of a given population (Fraenkel et al., 2019). Fraenkel et al. (2019) determined that survey research documents relationships between the population and research variables. Internal validity threats common in survey research are mortality, location, instrumentation, and instrument decay (Fraenkel et al., 2019). A mortality threat evident in survey research can be seen when members of the sample population are lost (Fraenkel et al., 2019). A location threat may occur when the place the survey is taken affects respondents' answers (Fraenkel et al., 2019). Respondent fatigue is an example of an instrument decay internal validity threat (Fraenkel et al., 2019). An instrumentation threat will occur if the survey is altered, therefore affecting the instrument's appropriateness (Fraenkel et al., 2019).

The independent variables of the study were perceived performance expectancy, effort expectancy, social influence, facilitating conditions, self-efficacy, gender, race, age, academic rank, tenure and non-tenure track, percentages of appointment, and years of teaching experience. The dependent variable was faculty behavioral intentions of using VR in academic classes.

Population

The population of the research study encompassed Colleges of Agriculture and Life Sciences (COALS) faculty at The Ohio State University, the University of Florida, and Texas A&M University. Besides their status as tier-one research institutions, all three AAU member institutions.

Sample

Within the population, both tenure track and non-tenure track faculty from each AAU University agricultural department was included in the sample. This study applied a stratified random sampling technique to quantify the sample population. Fraenkel et al. (2019) determined that an advantage of utilizing stratified samples in research is the enhanced representativeness of the sample. Due to unequal faculty numbers between the three institutions, a random sample would not be appropriate for the study (Ary et al., 2010). A total of one thousand twenty-five faculty members between all three institutions were identified as suitable for the sample population. Table 1 reveals the age of the survey participants. As of November 2021, sample participants' ages ranged between twenty-six and eighty-three.

Table 1.

Age Characteristics

Age	*f*	%
Non-response	111	39.20%
53	9	3.20%
36	9	3.20%
51	7	2.50%
43	7	2.50%
68	6	2.20%
64	6	2.20%
65	6	2.20%
41	6	2.50%
66	5	1.80%
58	5	1.80%
54	5	1.80%
49	5	1.80%
48	5	1.80%
45	5	1.80%
44	5	1.80%
42	5	1.80%
67	4	1.40%
62	4	1.40%
60	4	1.40%
57	4	1.40%
56	4	1.40%
50	4	1.40%
47	4	1.40%
46	4	1.40%
39	4	1.40%
38	4	1.40%
70	3	1.10%
69	3	1.10%
55	3	1.10%
37	3	1.10%
35	3	1.10%
74	2	0.70%

Table 1. (continued)

Age	*f*	%
63	2	0.70%
61	2	0.70%
59	2	0.70%
52	2	0.70%
33	2	0.70%
83	1	0.40%
76	1	0.40%
72	1	0.40%
71	1	0.40%
40	1	0.40%
32	1	0.40%
26	1	0.40%
Canada*	1	0.40%
XXXX**	1	0.40%

*Note. *Canada is not an age. **XXXX is not an age.*

To further assist research objective 4, the researchers collected data on academic rank, years served as a faculty member, and the faculties' academic department. These characteristics were collected to better understand the variances in virtual reality adoption between AAU faculty at all institutions. By understanding variances, researchers can determine existing relationships between participants' academic rank, number of years served, and department have concerning perceptions of virtual reality adoption (see Table 2, Table 3, Table 4).

Table 2.

Academic Rank

Academic rank	*f*	*%*
Non-Response	102	36.82%
Professor	71	25.63%
Associate Professor	50	18.05%
Assistant Professor	36	13.00%
Lecturer	10	3.61%
APT	2	0.72%
Instructor	1	0.36%
Janitor	1	0.36%
PhD	1	0.36%
Research Assistant Professor	1	0.36%
Scientist	1	0.36%
Faculty	1	0.36%

Table 3.

Years served as Faculty

Valid Years Served	*f*	%
Non-Response	98	35.40%
5	11	4.00%
25	9	3.20%
14	8	2.90%
15	8	2.90%
18	8	2.90%
21	8	2.90%
7	7	2.50%
20	7	2.50%
6	6	2.20%
8	6	2.20%
12	6	2.20%
30	6	2.20%
13	5	1.80%
27	5	1.80%
35	5	1.80%
2	4	1.40%
4	4	1.40%
10	4	1.40%
11	4	1.40%
16	4	1.40%
22	4	1.40%
31	4	1.40%
1	3	1.10%
2.5	3	1.10%
3	3	1.10%
9	3	1.10%
24	3	1.10%
40	3	1.10%
< 1 Year	2	0.70%
1.5	2	0.70%
28	2	0.70%
32	2	0.70%

Table 3. (continued).

Valid Years Served	*f*	%
33	2	0.70%
34	2	0.70%
0	1	0.40%
10 + ***	1	0.40%
17	1	0.40%
19	1	0.40%
23	1	0.40%
26	1	0.40%
26.5	1	0.40%
29	1	0.40%
36	1	0.40%
37	1	0.40%
38	1	0.40%
42	1	0.40%
46	1	0.40%
55	1	0.40%
>35*	1	0.40%
>20**	1	0.40%

*Note. *>35 and **>20 are not years. *** 10 + is not a concrete definition of years served.*

Table 4.

Academic Departments of the participants

Academic Department	*f*	*%*
Non-Response	124	43.82%
Extension	18	6.36%
Agricultural Leadership, Education, and Communications	18	6.36%
Animal Science	17	6.01%
Horticulture	16	5.65%
Entomology	10	3.53%
Plant Pathology and Microbiology	9	3.18%
Biological and Agricultural Engineering	8	2.83%
Environmental and Natural Resources	7	2.47%
Ecology and Conservation Biology	5	1.77%
Forest, Fisheries, and Geomatic Sciences	5	1.77%
Food Safety and Technology	5	1.77%
Soil and Crop Science	5	1.77%
Agronomy	4	1.41%
Family, Youth, and Consumer Sciences	4	1.41%
Agricultural Economics	3	1.06%
College of Food, Ag, and Environmental Sciences	3	1.06%
Microbiology and Cell Science	3	1.06%
ATI	2	0.71%
Biochemistry and Biophysics	2	0.71%
Food and Resource Economics	2	0.71%
Nutrition	2	0.71%
Poultry Science	2	0.71%
Recreation, Parks, and Tourism Science	2	0.71%
Rangeland, Wildlife, and Fisheries Management	2	0.71%
Soil and Water Sciences	2	0.71%
Food Science and Biological Engineering	1	0.35%
Trash Collection*	1	0.35%
Wildlife Ecology and Conservation	1	0.35%

Note. Trash Collection is not an academic department.

Timetable for Research

The timetable listed below shows a current depiction of the study timeframe. This calendar was provided to inform both the researcher and committee of the status of the research (see Table 5).

Table 5.

Thesis and Graduation Table

Month(s)	Researcher Agenda
August	Submit IRB
September	Seek IRB Approval
October	Become IRB Approved
October	Step 1: Tailored Design Method – First contact (Prenotice)
October	Step 2: Tailored Design Method – Second contact (instrument link)
October	Step 3: Tailored Design Method – Third contact (thank you/reminder)
October	Step 4: Tailored Design Method – Fourth contact (thank you/reminder)
November	Step 5: Tailored Design Method – Five contact (thank you/reminder)
November	Analyze data
December	Analyze data
January	Analyze data
February	Develop Implications/Recommendations
March	Full thesis draft
March	Submit thesis to committee
April	Defend thesis
May	Submit manuscripts to *impact factor journals*

Data Collection Methods

Dillman Tailored Design

Dillman et al.'s (2014) tailored design method was implemented for data collection. Dillman et al. (2014) developed a five-stage email strategy process for collecting survey research data. The first step within the Dillman et al. (2014) five-step email process is to provide an invitation. This invitation presented respondents information on why they were selected, the

survey being implemented, the researchers, and contact information should a respondent need it per the recommendation of Dillman et al. (2014). Steps two through five execute a strategic reminder to encourage participant response (Dillman et al., 2014). Dillman et al. (2014) declared that additional follow up emails should provide personal feedback and highlight the importance of the response.

Qualtrics

The online survey, comprised of 42 items, was developed in Qualtrics and administered electronically to the sample via email. To increase response rate, the researcher adhered to Dillman et al.'s (2014) tailored design method for preparation, implementation, and follow-up.

Instrumentation

The instruments applied to this study were Venkatesh et al.'s (2003) UTAUT model and the Irby and Strong (2013) model for measuring self-efficacy. Venkatesh et al.'s (2003) UTAUT model provided a method to deviate descriptive and inferential statistics across the UTAUT constructs. The Irby and Strong (2013) model for measuring self-efficacy offered the researcher an approach to measure self-efficacy.

Data Analysis

The researcher thoroughly analyzed survey responses to determine common themes among the three AAU University Colleges of Agriculture and Life Sciences utilizing SPSS version 27. The established comparisons between data formulated conclusions centered on the objectives of the study and helped frame future studies on virtual reality technology adoption within agriculture. Descriptive statistics (means and standard deviations) were compiled for each data set to determine faculty scores for each UTAUT construct. One advantage of a set of means data is that there is an average of all scores within a distribution (Fraenkel et al., 2019). A

disadvantage of mean scores is the possibility that data will be influenced by extreme scores (Fraenkel et al., 2019). Fraenkel et al. (2019) determined standard deviations to be the most useful indication of variability.

A Pearson's *r* correlation was developed to focus on research objective two: examine the relationship between tenure track and non-tenure track faculty and the UTAUT constructs regarding VR acceptance and use. Field (2018) indicated that a positive attribute of Pearson's *r* is the production of correlations between two variables (Field, 2018). A positive Pearson *r* correlation depicted a mutual increase in both variables (Field, 2018). Field (2018) discerned that a negative Pearson *r* correlation demonstrated a relationship with one increasing variable and one decreasing variable.

An ANOVA was composed to test if means of two or more groups are significantly different. The ANOVA test focused on research objective 3: analyze differences among faculty characteristics respective to the UTAUT constructs. An ANOVA test is used when researching more than one independent variable (Fraenkel et al., 2019). When a significant result is produced, the ANOVA acknowledges that at least one group differs from other groups (Abdi & Williams, 2010). Abdi and Williams (2010) recommended that a pairwise comparison test be used to compare mean differences. Tukey's post-hoc honestly significant difference test (HSD) is a statistical test used to investigate significant differences between sample means (Lane, 2010). Lane (2010) recommended the use of Tukey's HSD for pairwise test to control for type one error.

A multiple regression analysis was implemented to address research objective 4: investigating the variances among the independent variables on faculty behavioral intentions to adopt VR in academic courses. Multiple regression analyses enable researchers to establish a

correlation between criterion variables and predictor variables (Fraenkel et al., 2019). The multiple regression equation for this research is: $Y' = a + b1x1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6 + b7x7 + b8x8 + b9x9$.

Lindner et al. (2001) suggest further precautions for research with less than an 85% response rate. In the case of this thesis research, the response rate was 21.27%, therefore the researchers employed a method suggested by Lindner et al. (2001). To assess non-response, the researcher applied Lindner et al.'s (2001) methodology of comparing early and late responses with a *t* test for differences. Lindner et al. (2001) proposed the idea of comparing early and late respondents to control for non-response issues. Lindner et al. (2001) calls for a minimum of 30 late respondents. Lindner et al. (2021) discerned that late respondents should be defined as those who participate in the latter wave of data collection. The researchers assessed non-response error and determined there was no significant difference. The data could be pooled and analyzed together, therefore this study could be generalized to the sample. (Lindner et al., 2001).

Validity

Venkatesh et al. (2003) utilized a partial least squares test to determine the validity and reliability of the UTAUT model. The researchers examined the UTAUT instrument for content validity and the instrument was assessed to be appropriate provided the literature, theoretical framework, and research objectives.

Internal Validity Threats

Three participants in the study were lost early on, due to an error with distributing the survey. This was an example of mortality threat (Fraenkel et al., 2019). Mortality threat was prominent as indicated by the low survey response. As mentioned previously, the researchers

assessed the non-response error using Linder et al.'s (2001) methodology and found no significant differences.

Reliability

The Internal Consistency coefficients (ICR) for each construct were measured by Cronbach (1951). Venkatesh et al. (2003) determined alpha coefficients for each construct defined in the UTAUT model (see Table 6).

Table 6.

Reliability Coefficients indicated by Venkatesh et al. (2003)

Constructs	Alpha Coefficients
Effort Expectancy	0.92
Behavioral Intentions	0.91
Performance Expectancy	0.91
Social Influence	0.91
Self-Efficacy	0.89
Facilitating Conditions	0.85

Note. Alpha coefficients are reported from Venkatesh et al. (2003) original study

Prior to data analysis, the alpha coefficients of each construct for this study were measured and reported. In SPSS version 27, the instrument's construct's reliability coefficients were assessed with Cronbach's (1951) alpha and facilitating conditions was not reliable. Using "Scale Item If Deleted" in SPSS indicated item 13 (VR is not compatible with other technologies I use), aligned with facilitating conditions, was not reliable and severely reduced the reliability (Cronbach, 1951) of the construct. Therefore item 13 was removed from data analysis. Per SPSS version 27, the remaining three items measuring facilitating conditions were reliable and the revised three item construct was utilized in the data analysis (see Table 7).

Table 7.

Reliability Coefficients for Venkatesh et al.'s (2003) UTAUT Constructs (*N* = 285)

Constructs	Alpha Coefficients
Self-Efficacy	0.95
Behavioral Intentions	0.94
Performance Expectancy	0.91
Effort Expectancy	0.91
Social Influence	0.90
Facilitating Conditions	0.81*

*Note. Overall instrument reliability was .96 for the 33 items. * Facilitating Conditions alpha coefficient was .81 when removing item 13. With the inclusion of item 13, the alpha level was reported as .50.*

Sample Participants' Personal Characteristics

Within the sample population, it was deemed appropriate to collect data on the personal characteristics of each participant. To keep the data aligned with IRB qualifications, the researchers only asked characteristic-based questions that could not be traced back to a specific participant. Table 8 reveals the gender, race, and appointment type of the survey respondents. The highest identified gender of the sample were males (*f* = 116, *%* = 61.10). The least identified gender indicated was nonbinary (*f* = 2, *%* = 1.10). For the personal characteristic of race, white was the most frequent response of the participants (*f* = 158, *%* = 89.30). The least represented race based on participant response was American Indian/Alaskan Native (*f* = 3, *%* = 1.70) and Black or African American (*f* = 3, *%* = 1.70) (see Table 8).

Table 8.

Personal Characteristics of Sample Population

Baseline Characteristic	*f*	*%*
Gender		
Male	116	61.10%
Female	64	33.70%
Prefer not to say	8	4.20%
Nonbinary	2	1.10%
Race		
White	158	89.30%
Asian	13	7.30%
American Indian/Alaskan Native	3	1.70%
Black or African American	3	1.70%
Appointment		
Tenure Track	160	84.70%
Nontenure track	29	15.30%

Limitations

The limitation of this study is that it contains self-reported data. The limitation of self-reported data is the bias of individuals in the sample responses to the questionnaire (Rosenman et al., 2011). The researcher can only generalize the results to the sampled population, not the entire population of Colleges of Agriculture and Life Sciences faculty at all AAU institutions.

CHAPTER IV

RESULTS

Following data collection, the researcher analyzed the results and found the following for each objective:

Objective One: Descriptive Statistics for UTAUT Constructs

The first research objective aimed to derive descriptive statistics for Venkatesh et al.'s (2003) UTAUT constructs. The highest mean score for performance expectancy involved using virtual reality for quick task accomplishment (M = 2.29, SD = 0.75). The lowest mean score reported concerned using virtual reality for completing more work (M = 2.17, SD = 0.78). Overall, participants disagreed that Venkatesh et al.'s (2003) performance expectancy construct concerning virtual reality would enhance their work performance (M = 2.23, SD = 0.77) (see Table 9).

Table 9.

Descriptive Statistics of Performance Expectancy

Items	*n*	*M*	*SD*
Using virtual reality enables me to accomplish tasks more quickly.	228	2.29	0.75
Using VR makes it easier to do my work	215	2.25	0.82
Using VR enhances the quality of my work	218	2.22	0.74
Using VR, I can do much more work	217	2.17	0.78

Note. Overall. M =2.23, SD =0 .78, Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree

Respondents disagree that virtual reality is easy to operate (M = 2.25, SD = 0.79). The highest mean score for effort expectancy involved perceiving virtual reality technology as easy to use (M = 2.32, SD = .81). The lowest mean score for effort expectancy concerned faculty

perceptions of VR ease of use in relation to performing tasks they intend to do (*M* = 2.15, *SD* = 0.76) (Table 10).

Table 10.

Descriptive Statistics of Effort Expectancy

Items	*n*	*M*	*SD*
I find it easy to use VR.	207	2.32	0.81
I intend to use VR more to keep in touch with my students.	207	2.29	0.81
I intend to use VR more in training sessions with my students.	210	2.27	0.82
I find it easy for me to become skillful using VR.	210	2.23	0.76
I intend to use VR more to get information out of my students.	204	2.21	0.80
I find it easy to use VR to do what I want to do.	215	2.15	0.76

Note. Overall. M = 2.25, SD = 0.79, Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree

The highest mean score for facilitating conditions involved having necessary resources available to use virtual reality (*M* = 2.79, *SD* = 1.33). The lowest mean score for facilitating conditions involved having the knowledge necessary to use VR (*M* = 2.66, *SD* = 1.32). Overall, survey respondents did not agree that their respective institutions have the VR infrastructure necessary for students' academic success (*M* = 2.75, *SD* = 1.21 (Table 11).

Table 11.

Descriptive Statistics of Facilitating Conditions

Items	*n*	*M*	*SD*
I have the resources necessary to use VR	208	2.79	1.33
A specific person (or group) is available for assistance with system difficulties	205	2.78	1.30
Virtual reality is not compatible with other technologies I use.	207	2.76	0.90
I have the knowledge necessary to use VR	208	2.66	1.32

Note. Overall. M = 2.75, SD = 1.21, Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

The highest mean scores for social influence were for the items "People who I work with think I should use VR in my teaching" (*M* = 2.20, *SD* = 0.75) and "People who are influential in

my field think I should use VR in my teaching" (*M* = 2.20, *SD* = .75). The lowest mean score was for the item corresponding to "I find it easy to use VR to do what I want to do" (*M* = 2.16, *SD* = 0.74). Participants disagreed that faculty (e.g., peers, department heads) think they should adopt and use virtual reality (*M* = 2.19 and *SD* = 0.75) (Table 12).

Table 12.

Descriptive Statistics of Social Influence

Items	*n*	*M*	*SD*
People who I work with think I should use VR in my teaching	205	2.20	0.75
People who are influential in my field think I should use VR in my teaching	204	2.20	0.75
My department head thinks I should use VR in my teaching	200	2.19	0.77
My department faculty think I should use VR in my teaching	204	2.16	0.74

Note. Overall. M = 2.19, SD = 0.75, Scale: *1= Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree*

The highest mean score for self-efficacy correlated to the question "How well can you respond to students through VR?" (*M* = 4.45, *SD* = 2.42). The lowest mean score was for the item corresponding to "How comfortable are you using evaluation strategies for VR use?" (*M* = 3.61, *SD* = 2.09). Respondents perceived self-efficacy to have little influence on their adoption of virtual reality for academic purposes (*M* = 3.97, *SD* = 2.11) (Table 13).

Table 13.

Descriptive Statistics of Self-Efficacy

Items	*n*	*M*	*SD*
How well can you respond to students through VR?	196	4.45	2.42
To what extent can you provide alternative explanation, through VR, when students are confused about your teaching?	187	4.03	2.05
How well can you implement alternative strategies in your teaching when using VR to teach?	184	4.02	2.10
To what extent can you craft good questions through VR?	187	4.02	1.99
How much can you gauge student comprehension of what you taught through VR?	192	3.70	1.99
How comfortable are you using evaluation strategies for VR use?	190	3.61	2.09

Note. Overall. M = 3.97, SD = 2.11, Scale: 1 = *Nothing*; 3 = *Very Little*; 5 = *Some Influence*; 7 = *Quite a bit*; 9 = *A great deal*

The highest mean score for behavioral intentions was concerning using virtual reality for knowledge enhancement (*M* = 2.38, *SD* = 0.91). Respondents strongly disagree in using virtual reality to contact farmers (*M* = 1.82, *SD* = 0.76). AAU College of Agricultural and Life Sciences disagree that they intend to adopt virtual reality in academia (*M* = 2.20, *SD* = 0.84) (see Table 14).

Table 14.

Descriptive Statistics of Behavioral Intentions

Items	*n*	*M*	*SD*
I intend to use virtual reality for enhancing my knowledge.	196	2.38	.91
I intend to use VR more for preparing for training materials	199	2.31	.81
I intend to use VR more to store teaching materials	204	2.30	.85
I intend to use VR more to acquire the knowledge I need to enhance my training	201	2.28	.84
I intend to use virtual reality more in the future in all of my work.	197	2.26	.86
I intend to use VR more to search for information when preparing my programs	197	2.20	.87
I intend to use virtual reality more for personal contact.	197	2.16	.85
I intend to use virtual reality for more my personal tasks.	197	2.09	.82
I intend to use VR more to contact farmers	193	1.82	.76

Note. Overall. M = 2.20, SD = 0.84, Scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree

Participants' mean scores for each of the constructs of the UTAUT model demonstrated disagreement relative to faculty perceptions. Descriptive findings suggest that AAU College of Agricultural and Life Sciences faculty disagree with Venkatesh et al.'s (2003) constructs of performance expectancy, effort expectancy, social influence, facilitating conditions, and self-efficacy. In turn, this finding suggests that faculty have low behavioral intentions to adopt virtual reality.

To accomplish research objective one, frequencies were collected for qualitative questions (personal characteristics). The frequencies for each qualitative question are reported in Table 15. The item with the highest frequency was "What is your identified gender" (*f* = 190, *%* = 67.10). The item "What year were you born?" had the lowest frequency (*f* = 172, *%* = 61.50) (Table 15).

Table 15.

Frequencies for Qualitative Questions

Item	*f*	%
What is your identified gender?	190	67.10
Which is your appointment as a faculty member?	189	68.23
What is your current academic rank?	189	66.70
How many years have you served as a faculty member at a college or university?	179	64.10
What is your identified race?	177	62.60
What is the name of your academic department?	175	62.00
What year were you born?	172	61.50

Objective Two: Pearson *r* Correlations

The second research objective was developed to determine Pearson *r* correlations for each construct from Venkatesh et al.'s (2003) UTAUT theory. Pearson *r* correlations of behavioral intentions were measured to better understand the magnitudes of the relationships between each independent variable and the behavioral intentions of AAU College of Agricultural and Life Sciences faculty. Davis (1971) proposed the fundamental device to establish correlation magnitudes. Correlations between 0.70–1.00 are considered very strong and a correlation in the range of 0.50 – 0.69 is considered to have substantial correlation (Davis, 1971). Pearson correlations between 0.30 – 0.49 were deemed to have moderate association, those between 0.10 – 0.29 have low correlations, and scores below 0.10 have negligible association according to Davis (1971).

Table 16 revealed two independent variables with high statistically significant correlations. A significant very strong positive association was determined between behavioral intentions and performance expectancy, r (219) = .77, $p < .05$. A smaller, yet still very strong, positive association was found between behavioral intentions and self-efficacy, r (186) = 0.72, p

< .0.5. A substantial positive association was found between behavioral intentions and effort expectancy, r (202) = 0.56, $p < .05$. Behavioral intentions and social influence demonstrated a substantial positive relationship, r = (201) = 0.50, $p < .05$. Facilitating conditions and behavioral intentions reported a moderately positive relationship, r (203) = 0.32, $p < .05$ (see Table 16).

Table 16.

Pearson r Correlations of Independent Variables with Behavioral Intention

Independent Variables	*n*	*r*	*p*
Performance Expectancy	219	.77	.00*
Self-efficacy	186	.72	.00*
Effort Expectancy	202	.56	.00*
Social Influence	201	.50	.00*
Facilitating Conditions	203	.32	.00*

*Note. $p < .05$

Objective Three: Analysis of Variance

An analysis of variance (ANOVA) was utilized to compare personal characteristics effects on Venkatesh et al.'s (2003) UTAUT constructs. Race was determined to not be significant due to the underrepresentation of minorities (*N < 30)*. There was no significant difference in gender and Venkatesh et al.'s (2003) UTAUT constructs. Table 17 displays an independent t-test for the personal characteristic of appointment. An ANOVA could not be conducted for appointment because there were not more than two groups (Fraenkel et al., 2019). An independent t-test is used to establish significance between means of two independent samples (Fraenkel et al., 2019), therefore it was employed to measure the appointment personal characteristic.

Table 17.

Independent t-test for Appointment

	Levene's Test		t-test for Equality of Means					95% Confidence Interval	
Construct Item	F	Sig.	t	df	*p*	Mean Difference	Std. Error Difference	Lower	Upper
PE 1	1.35	0.25	-0.79	182	.43	-0.12	0.16	-0.43	0.19
PE 2	0.28	0.60	-0.27	182	.79	-0.04	0.15	-0.35	2.62
PE 3	1.42	0.23	-1.37	180	.17	-0.23	0.17	-0.57	0.10
PE 4 *	4.64	0.03	-0.65	33.30	.52	-0.13	0.20	-0.53	0.27
EE 1	0.33	0.57	-0.36	183	.72	-0.06	0.16	-0.38	0.26
EE 2	0.30	0.58	-0.11	183	.92	-0.02	0.17	-0.34	0.31
EE 3	0.54	0.46	-0.94	181	.35	-0.16	0.17	-0.50	0.18
EE 4	0.07	0.79	-1.18	185	.24	-0.20	0.17	-0.53	0.13
EE 5	0.11	0.75	-1.15	185	.25	-0.19	0.17	-0.53	0.14
EE 6	0.30	0.59	-0.82	183	.41	-0.13	0.16	-0.46	0.19
FC 1	0.81	0.37	-0.46	187	.65	-0.13	0.27	-0.66	0.41
FC 2	1.24	0.27	-1.73	187	.09	-0.46	0.27	-0.99	0.07
FC 3	0.71	0.40	1.20	186	.23	0.22	0.18	-0.14	0.58
FC 4	0.03	0.87	-0.31	184	.76	-0.08	0.27	-0.61	0.45

Table 17. (continued).

	Levene's Test		t-test for Equality of Means					95% Confidence Interval	
Construct Item	F	Sig.	t	df	*p*	Mean Difference	Std. Error Difference	Lower	Upper
SI 1	0.00	0.98	-1.81	183	.07	-0.27	0.15	-0.57	0.03
SI 2	1.22	0.27	-1.97	185	.05	-0.30	0.15	-0.60	0.00
SI 3	1.18	0.28	-2.01	184	.05	-0.30	0.15	-0.59	-0.01
SI 4	1.69	0.20	-0.28	182	.01	-0.45	0.16	-0.76	-0.14
BI 1	0.03	0.87	-2.45	184	.02	-0.42	0.17	-0.76	-0.08
BI 2	0.03	0.87	-1.86	184	.07	-0.32	0.17	-0.67	0.02
BI 3	0.19	0.66	-1.00	184	.32	-0.17	0.17	-0.50	0.16
BI 4	0.06	0.82	-0.21	180	.84	-0.03	0.16	-0.34	0.28
BI 5	0.05	0.83	-1.78	184	.08	-0.32	0.18	-0.67	0.04
BI 6	0.28	0.60	-2.33	184	.02	-0.38	0.17	-0.71	-0.06
BI 7	1.02	0.31	-1.47	184	.14	-0.27	0.18	-0.63	0.09
BI 8	1.13	0.25	-0.15	185	.14	-0.25	0.17	-0.60	0.09
BI 9	0.87	0.35	-0.17	186	.09	-0.30	0.17	-0.64	0.04
SE 1	1.16	0.28	-1.98	185	.05	-0.98	0.50	-0.20	0.00
SE 2	0.14	0.25	-2.55	184	.01	-1.03	0.40	-1.82	-0.23
SE 3	0.00	0.99	-0.32	181	.00	-1.28	0.40	-2.07	-0.48
SE 4	2.34	0.13	-3.24	184	.00	-1.36	0.42	-2.19	-0.53
SE 5	0.57	0.45	-2.85	183	.01	-1.18	0.41	-2.00	-0.37
SE 6	0.02	0.89	-2.24	181	.03	-0.96	0.43	-1.80	-0.11

*Note. * = Equal variances not assumed. All other items have equal variances assumed.*

ANOVA (Self-Efficacy Items)

Table 18 demonstrates the ANOVA output for survey question "How much can you gauge student comprehension of what you taught through virtual reality?" and the items of each UTAUT construct. Findings from the ANOVA determined there was a significant effect of this self-efficacy item on the UTAUT model; therefore, having significant effect on behavioral intentions. At the alpha level of .05, the highest *F* value was derived between the self-efficacy item regarding increasing knowledge and gauging student comprehension [F (8, 181) = 11.84, p = .00]. The lowest *F* value was determined to exist between gauging student comprehension and assessing if virtual reality was compatible with other technologies [F (8, 182) = 2.81, p = .00].

Table 18.

Analysis of variance for question "How much can you gauge student comprehension of what you taught through virtual reality?"

Survey Question		*SS*	*df*	*MS*	*F*	*p*
Using virtual reality enables me to accomplish tasks more quickly.	Between	20.57	8	2.57	5.10	.00*
	Within	91.21	181	0.50		
	Total	111.78	189			
Using VR enhances the quality of my work	Between	17.97	8	2.25	4.55	.00*
	Within	89.3	181	0.49		
	Total	107.27	189			
Using VR makes it easier to do my work	Between	32.38	8	4.06	7.27	.00*
	Within	100.01	179	0.56		
	Total	132.39	187			
Using virtual reality, I can do much more work.	Between	25.74	8	3.22	6.00	.00*
	Within	96.62	180	0.54		
	Total	122.36	188			
I find it easy to use VR to do what I want to do.	Between	18	8	2.25	4.22	.00*
	Within	96.61	181	0.53		
	Total	114.61	189			

Table 18 (continued).

Survey Question		SS	df	MS	F	p
I find it easy for me to become skillful using VR.	Between	26.93	8	3.37	6.97	.00*
	Within	87.41	181	0.48		
	Total	114.34	189			
I find it easy to use VR.	Between	33.86	8	4.23	8.23	.00*
	Within	92.03	179	0.51		
	Total	125.89	187			
I intend to use VR more in training sessions with my students.	Between	31.2	8	3.90	7.20	.00*
	Within	99.17	183	0.54		
	Total	130.37	191			
I intend to use VR more to keep in touch with my students.	Between	34.59	8	4.32	8.43	.00*
	Within	93.89	183	0.51		
	Total	128.48	191			
I intend to use VR more to get information out of my students.	Between	22.34	8	2.79	5.19	.00*
	Within	97.47	181	0.54		
	Total	119.81	189			
I have the resources necessary to use VR	Between	65.69	8	8.21	5.40	.00*
	Within	278.29	183	1.52		
	Total	343.98	191			
I have the knowledge necessary to use VR	Between	80.96	8	10.12	7.12	.00*
	Within	260.29	183	1.42		
	Total	341.25	191			
Virtual reality is not compatible with other technologies I use.	Between	17.32	8	2.17	2.81	.01*
	Within	140.11	182	0.77		
	Total	157.44	190			
A specific person (or group) is available for assistance with system difficulties	Between	41.74	8	5.22	3.36	.00*
	Within	280.84	181	1.55		
	Total	322.57	189			
People who are influential in my field think I should use VR in my teaching	Between	19.72	8	2.47	5.34	.00*
	Within	83.55	181	0.46		
	Total	103.27	189			
People who I work with think I should use VR in my teaching	Between	23.07	8	2.88	6.24	.00*
	Within	84.6	183	0.46		
	Total	107.67	191			
My department faculty think I should use VR in my teaching	Between	21.17	8	2.65	6.07	.00*
	Within	79.41	182	0.44		
	Total	100.59	190			

Table 18 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
My department head thinks I should use VR in my teaching	Between	22.75	8	2.84	5.77	.00*
	Within	88.79	180	0.49		
	Total	111.54	188			
I intend to use VR more to store teaching materials	Between	35.94	8	4.49	8.08	.00*
	Within	101.21	182	0.55		
	Total	137.15	190			
I intend to use VR more to acquire the knowledge I need to enhance my training	Between	37.53	8	4.69	8.60	.00*
	Within	98.77	181	0.55		
	Total	136.3	189			
I intend to use VR more for preparing for training materials.	Between	35.8	8	4.48	9.00	.00*
	Within	89.97	181	0.50		
	Total	125.77	189			
I intend to use VR more to contact farmers	Between	14.55	8	1.82	3.42	.00*
	Within	94.63	178	0.53		
	Total	109.18	186			
I intend to use VR more to search for information when preparing my programs	Between	39.63	8	4.95	8.46	.00*
	Within	106.57	182	0.59		
	Total	146.2	190			
I intend to use virtual reality for more my personal tasks.	Between	39.68	8	4.96	10.32	.00*
	Within	86.98	181	0.48		
	Total	126.65	189			
I intend to use virtual reality for enhancing my knowledge.	Between	53.38	8	6.67	11.84	.00*
	Within	102.02	181	0.56		
	Total	155.4	189			
I intend to use virtual reality more for personal contact.	Between	36.82	8	4.60	8.28	.00*
	Within	101.15	182	0.56		
	Total	137.97	190			
I intend to use virtual reality more in the future in all of my work.	Between	37.98	8	4.75	8.43	.00*
	Within	103	183	0.56		
	Total	140.98	191			

*Note. SS= Sum of Squares; MS = Mean Square; * = Significant at p <.05*

Table 19 exhibits the ANOVA output for survey question “To what extent can you craft good questions from your students through virtual reality?” and the items of each UTAUT construct. Findings from the ANOVA determined there was a significant influence of self-

efficacy on the UTAUT model, correlating to significant effect on behavioral intentions. At the alpha level of .05, the highest *F* value was obtained between the self-efficacy item regarding increasing knowledge and gauging student comprehension [F (8, 176) = 19.21, p = .00]. The lowest *F* value was determined to exist between gauging student comprehension and assessing if virtual reality was compatible with other technologies [F (8, 177) = 2.26, p = .03].

Table 19.

Analysis of variance for question "To what extent can you craft good questions from your students through virtual reality?"

Survey Question		*SS*	*df*	*MS*	*F*	*p*
Using virtual reality enables me to accomplish tasks more quickly.	Between	34.09	8	4.26	10.39	.00*
	Within	72.15	176	0.41		
	Total	106.24	184			
Using VR enhances the quality of my work	Between	23.32	8	2.92	6.40	.00*
	Within	80.21	176	0.46		
	Total	103.54	184			
Using VR makes it easier to do my work	Between	45.46	8	5.68	12.15	.00*
	Within	81.4	174	0.47		
	Total	126.86	182			
Using virtual reality, I can do much more work.	Between	38.17	8	4.77	10.63	.00*
	Within	78.56	175	0.45		
	Total	116.73	183			
I find it easy to use VR to do what I want to do.	Between	27.86	8	3.48	7.54	.00*
	Within	81.25	176	0.46		
	Total	109.11	184			
I find it easy for me to become skillful using VR.	Between	30.67	8	3.84	8.61	.00*
	Within	78.38	176	0.45		
	Total	109.05	184			
I find it easy to use VR.	Between	40.64	8	5.08	11.19	.00*
	Within	78.98	174	0.45		
	Total	119.62	182			
I intend to use VR more in training sessions with my students.	Between	38.96	8	4.87	9.91	.00*
	Within	87.44	178	0.45		
	Total	126.41	186			

Table 19 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I intend to use VR more to keep in touch with my students.	Between	46.63	8	5.83	13.63	.00*
	Within	76.12	178	0.43		
	Total	122.75	186			
I intend to use VR more to get information out of my students.	Between	33.91	8	4.24	9.42	.00*
	Within	79.15	176	0.45		
	Total	113.06	184			
I have the resources necessary to use VR	Between	76.37	8	9.55	6.58	.00*
	Within	258.16	178	1.45		
	Total	334.52	186			
I have the knowledge necessary to use VR	Between	107.81	8	13.48	10.72	.00*
	Within	223.81	178	1.26		
	Total	331.63	186			
Virtual reality is not compatible with other technologies I use.	Between	14.23	8	1.78	2.26	.03*
	Within	139.36	177	0.79		
	Total	153.59	185			
A specific person (or group) is available for assistance with system difficulties	Between	47.75	8	5.97	3.90	.00*
	Within	269.31	176	1.53		
	Total	317.06	184			
People who are influential in my field think I should use VR in my teaching	Between	28.5	8	3.56	8.71	.00*
	Within	71.96	176	0.41		
	Total	100.47	184			
People who I work with think I should use VR in my teaching	Between	28.65	8	3.58	8.30	.00*
	Within	76.79	178	0.43		
	Total	105.44	186			
My department faculty think I should use VR in my teaching	Between	27.98	8	3.50	8.89	.00*
	Within	69.66	177	0.39		
	Total	97.64	185			
My department head thinks I should use VR in my teaching	Between	31.71	8	3.96	9.11	.00*
	Within	76.15	175	0.44		
	Total	107.87	183			
I intend to use VR more to store teaching materials	Between	47.36	8	5.92	12.43	.00*
	Within	84.3	177	0.48		
	Total	131.66	185			
I intend to use VR more to acquire the knowledge I need to enhance my training	Between	54.12	8	6.77	15.58	.00*
	Within	76.42	176	0.43		
	Total	130.54	184			

Table 19 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I intend to use VR more for preparing for training materials.	Between	44.24	8	5.53	12.87	.00*
	Within	75.62	176	0.43		
	Total	119.86	184			
I intend to use VR more to contact farmers	Between	20.21	8	2.53	5.07	.00*
	Within	86.17	173	0.50		
	Total	106.38	181			
I intend to use VR more to search for information when preparing my programs	Between	51.38	8	6.42	12.75	.00*
	Within	89.14	177	0.50		
	Total	140.52	185			
I intend to use virtual reality for more my personal tasks.	Between	54.77	8	6.85	17.96	.00*
	Within	67.07	176	0.38		
	Total	121.84	184			
I intend to use virtual reality for enhancing my knowledge.	Between	69.36	8	8.67	19.21	.00*
	Within	79.42	176	0.45		
	Total	148.78	184			
I intend to use virtual reality more for personal contact.	Between	51.52	8	6.44	13.86	.00*
	Within	82.27	177	0.47		
	Total	133.79	185			
I intend to use virtual reality more in the future in all of my work.	Between	51.32	8	6.42	13.56	.00*
	Within	84.22	178	0.47		
	Total	135.54	186			

*Note. SS= Sum of Squares; MS = Mean Square; * = Significant at p <.05*

Table 20 exhibits the ANOVA output for survey question "How comfortable are you using evaluation strategies for virtual reality use?" and the items of each UTAUT construct. Findings from the ANOVA determined there was a significant effect of self-efficacy on the UTAUT model; therefore, the item was determined to have significant effect on behavioral intentions. At the alpha level of .05, the highest *F* value was discovered between self-efficacy regarding increasing knowledge and gauging student comprehension [F (8, 181) = 18.31, p = .00]. The lowest *F* value was shown to exist between gauging student comprehension and assessing if virtual reality was compatible with other technologies [F (8, 180) = 0.06, p = .00].

Table 20.

ANOVA outputs for question "How comfortable are you using evaluation strategies for virtual reality use?"

Survey Question		*SS*	*df*	*MS*	*F*	*p*
Using virtual reality enables me to accomplish tasks more quickly.	Between	28.51	8	3.56	7.87	.00*
	Within	81.10	179	0.45		
	Total	109.62	187			
Using VR enhances the quality of my work	Between	18.33	8	2.29	4.69	.00*
	Within	87.37	179	0.49		
	Total	105.70	187			
Using VR makes it easier to do my work	Between	38.70	8	4.84	9.34	.00*
	Within	91.63	177	0.52		
	Total	130.32	185			
Using virtual reality, I can do much more work.	Between	36.85	8	4.61	9.76	.00*
	Within	84.01	178	0.47		
	Total	120.87	186			
I find it easy to use VR to do what I want to do.	Between	36.22	8	4.53	10.62	.00*
	Within	76.33	179	0.43		
	Total	112.55	187			
I find it easy for me to become skillful using VR.	Between	31.51	8	3.94	8.68	.00*
	Within	81.24	179	0.45		
	Total	112.75	187			
I find it easy to use VR.	Between	38.37	8	4.80	9.92	.00*
	Within	85.61	177	0.48		
	Total	123.98	185			
I intend to use VR more in training sessions with my students.	Between	44.06	8	5.51	11.79	.00*
	Within	84.59	181	0.47		
	Total	128.65	189			
I intend to use VR more to keep in touch with my students.	Between	49.52	8	6.19	14.59	.00*
	Within	76.78	181	0.42		
	Total	126.30	189			
I intend to use VR more to get information out of my students.	Between	35.56	8	4.42	9.60	.00*
	Within	82.37	179	0.46		
	Total	117.92	187			
I have the resources necessary to use VR	Between	108.31	8	13.54	10.61	.00*
	Within	230.96	181	1.28		
	Total	339.27	189			

Table 20 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I have the knowledge necessary to use VR	Between	150.58	8	18.82	18.31	.00*
	Within	186.10	181	1.03		
	Total	336.68	189			
Virtual reality is not compatible with other technologies I use.	Between	13.38	8	1.67	2.14	.03*
	Within	140.38	180	0.78		
	Total	153.76	188			
A specific person (or group) is available for assistance with system difficulties	Between	68.46	8	8.56	6.23	.00*
	Within	246.07	179	1.38		
	Total	314.53	187			
People who are influential in my field think I should use VR in my teaching	Between	29.25	8	3.66	9.10	.00*
	Within	71.91	179	0.40		
	Total	101.17	187			
People who I work with think I should use VR in my teaching	Between	29.55	8	3.69	8.79	.00*
	Within	76.03	181	0.42		
	Total	105.58	189			
My department faculty think I should use VR in my teaching	Between	37.38	8	4.67	13.75	.00*
	Within	76.03	181	0.34		
	Total	113.41	189			
My department head thinks I should use VR in my teaching	Between	36.31	8	4.54	11.05	.00*
	Within	73.14	178	0.41		
	Total	109.44	186			
I intend to use VR more to store teaching materials	Between	56.66	8	7.08	0.06	.00*
	Within	78.29	180	0.44		
	Total	134.95	188			
I intend to use VR more to acquire the knowledge I need to enhance my training	Between	57.07	8	7.13	16.58	.00*
	Within	77.03	179	0.43		
	Total	134.11	187			
I intend to use VR more for preparing for training materials.	Between	49.97	8	6.43	15.20	.00*
	Within	73.58	179	0.41		
	Total	123.55	187			
I intend to use VR more to contact farmers	Between	24.30	8	3.04	6.35	.00*
	Within	84.17	176	0.48		
	Total	108.46	184			
I intend to use VR more to search for information when preparing my programs	Between	55.03	8	6.88	13.90	.00*
	Within	89.07	180	0.50		
	Total	144.11	188			

Table 20 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I intend to use virtual reality for more my personal tasks.	Between	54.16	8	6.77	17.00	.00*
	Within	71.30	179	0.40		
	Total	125.46	187			
I intend to use virtual reality for enhancing my knowledge.	Between	62.89	8	7.86	15.60	.00*
	Within	90.19	179	0.50		
	Total	153.08	187			
I intend to use virtual reality more for personal contact.	Between	55.01	8	6.88	15.17	.00*
	Within	81.57	180	0.45		
	Total	136.58	188			
I intend to use virtual reality more in the future in all of my work.	Between	55.53	8	6.94	15.08	.00*
	Within	83.32	181	0.46		
	Total	138.84	189			

*Note. SS= Sum of Squares; MS = Mean Square; * = Significant at p <.05*

Table 21 exhibits the ANOVA output for survey question "To what extent can you provide an alternative explanation, through virtual reality, when students are confused about what you are teaching?" and the survey items. Findings from the ANOVA determined that there was a significant effect of self-efficacy on the UTAUT model; therefore, the item was determined to have significant effect on behavioral intentions. At the alpha level of .05, the highest *F* value was discovered between self-efficacy and increasing faculty knowledge [*F* (8, 176) = 20.89, *p* = .00]. The lowest *F* value was shown to exist between gauging student comprehension and assessing if virtual reality was compatible with other technologies [*F* (8, 177) = 3.09, *p* = .00].

Table 21.

ANOVA outputs for question "To what extent can you provide an alternative explanation, through virtual reality, when students are confused about what you are teaching?"

Survey Question		*SS*	*df*	*MS*	*F*	*p*
Using virtual reality enables me to accomplish tasks more quickly.	Between	31.20	8	4.03	9.41	.00*
	Within	75.70	177	0.43		
	Total	106.90	185			
Using VR enhances the quality of my work	Between	26.91	8	3.36	7.73	.00*
	Within	76.63	176	0.44		
	Total	103.54	184			
Using VR makes it easier to do my work	Between	45.95	8	5.74	12.17	.00*
	Within	82.62	175	0.47		
	Total	128.56	183			
Using virtual reality, I can do much more work.	Between	41.24	8	5.16	11.62	.00*
	Within	78.11	176	0.44		
	Total	119.35	184			
I find it easy to use VR to do what I want to do.	Between	33.51	8	4.19	9.72	.00*
	Within	76.28	177	0.43		
	Total	109.79	185			
I find it easy for me to become skillful using VR.	Between	35.04	8	4.38	10.34	.00*
	Within	74.51	176	0.42		
	Total	109.55	184			
I find it easy to use VR.	Between	47.34	8	5.92	13.81	.00*
	Within	74.57	174	0.43		
	Total	121.91	182			
I intend to use VR more in training sessions with my students.	Between	45.18	8	5.65	12.31	.00*
	Within	81.65	178	0.46		
	Total	126.82	186			
I intend to use VR more to keep in touch with my students.	Between	52.81	8	5.65	6.60	.00*
	Within	71.57	178	0.40		
	Total	124.39	186			
I intend to use VR more to get information out of my students.	Between	41.56	8	5.20	12.27	.00*
	Within	74.50	176	0.42		
	Total	116.05	184			
I have the resources necessary to use VR	Between	71.72	8	8.89	6.13	.00*
	Within	257.98	178	1.45		
	Total	329.70	186			

Table 21 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I have the knowledge necessary to use VR	Between	114.07	8	14.26	11.87	.00*
	Within	330.06	187	1.77		
	Total	444.13	195			
Virtual reality is not compatible with other technologies I use.	Between	18.82	8	2.35	3.09	.00*
	Within	134.78	177	0.76		
	Total	153.59	185			
A specific person (or group) is available for assistance with system difficulties	Between	53.90	8	6.74	4.57	.00*
	Within	259.23	176	1.47		
	Total	313.14	184			
People who are influential in my field think I should use VR in my teaching	Between	27.79	8	3.47	8.52	.00*
	Within	71.75	176	0.41		
	Total	99.54	184			
People who I work with think I should use VR in my teaching	Between	29.19	8	3.65	8.68	.00*
	Within	74.82	178	0.42		
	Total	104.01	186			
My department faculty think I should use VR in my teaching	Between	31.65	8	3.96	10.95	.00*
	Within	63.99	177	0.36		
	Total	95.64	185			
My department head thinks I should use VR in my teaching	Between	38.85	8	4.86	12.31	.00*
	Within	60.02	175	0.39		
	Total	98.86	183			
I intend to use VR more to store teaching materials	Between	53.94	8	6.73	15.10	.00*
	Within	79.05	177	0.45		
	Total	133.00	185			
I intend to use VR more to acquire the knowledge I need to enhance my training	Between	55.96	8	6.99	16.51	.00*
	Within	74.59	176	0.42		
	Total	130.54	184			
I intend to use VR more for preparing for training materials.	Between	49.61	8	6.20	15.54	.00*
	Within	70.25	176	0.40		
	Total	119.86	184			
I intend to use VR more to contact farmers	Between	20.47	8	2.56	5.11	.00*
	Within	86.59	173	0.50		
	Total	107.06	181			
I intend to use VR more to search for information when preparing my programs	Between	57.98	8	7.25	15.44	.00*
	Within	83.08	177	0.47		
	Total	141.06	185			

Table 21 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I intend to use virtual reality for more my personal tasks.	Between	48.80	8	6.10	14.46	.00*
	Within	74.25	176	0.42		
	Total	123.05	184			
I intend to use virtual reality for enhancing my knowledge.	Between	72.56	8	9.07	20.89	.00*
	Within	76.40	176	0.43		
	Total	148.95	184			
I intend to use virtual reality more for personal contact.	Between	61.51	8	7.69	18.83	.00*
	Within	72.28	177	0.41		
	Total	133.79	185			
I intend to use virtual reality more in the future in all of my work.	Between	53.31	8	6.66	14.43	.00*
	Within	82.23	178	0.46		
	Total	135.54	186			

*Note. SS= Sum of Squares; MS = Mean Square; * = Significant at p <.05*

Table 22 demonstrates the ANOVA output for survey question "How well can you implement alternative strategies in your teaching when using virtual reality to teach?" and the survey items. Findings from the ANOVA determined that there was a significant effect of self-efficacy on the UTAUT model; therefore, it was found to be significant in determining behavioral intentions. At the alpha level of .05, the highest *F* value was discovered between self-efficacy around using virtual reality for personal contact [F (8, 174) = 19.07, p = .00]. The lowest *F* value was shown to exist between gauging student comprehension and assessing whether virtual reality was compatible with other technologies [F (8, 174) = 2.29, p = .02].

Table 22.

ANOVA outputs for item "How well can you implement alternative strategies in your teaching when using virtual reality to teach?"

Survey Question		*SS*	*df*	*MS*	*F*	*p*
Using virtual reality enables me to accomplish tasks more quickly.	Between	33.83	8	4.23	10.03	.00*
	Within	73.39	174	0.42		
	Total	107.22	182			
Using VR enhances the quality of my work	Between	24.86	8	3.11	6.85	.00*
	Within	78.51	173	0.45		
	Total	103.36	181			
Using VR makes it easier to do my work	Between	48.80	8	6.10	13.27	.00*
	Within	79.09	172	0.46		
	Total	127.89	180			
Using virtual reality, I can do much more work.	Between	43.74	8	5.47	12.88	.00*
	Within	73.47	173	0.43		
	Total	117.21	181			
I find it easy to use VR to do what I want to do.	Between	33.94	8	4.24	10.01	.00*
	Within	73.75	174	0.42		
	Total	107.68	182			
I find it easy for me to become skillful using VR.	Between	36.29	8	4.54	10.82	.00*
	Within	72.57	173	0.42		
	Total	108.86	181			
I find it easy to use VR.	Between	47.13	8	5.89	13.97	.00*
	Within	72.11	171	0.42		
	Total	119.24	179			
I intend to use VR more in training sessions with my students.	Between	47.70	8	5.96	13.79	.00*
	Within	75.65	175	0.43		
	Total	123.34	183			
I intend to use VR more to keep in touch with my students.	Between	54.82	8	6.85	17.83	.00*
	Within	67.26	175	0.38		
	Total	122.08	183			
I intend to use VR more to get information out of my students.	Between	37.14	8	4.63	10.40	.00*
	Within	77.23	173	0.45		
	Total	114.37	181			
I have the resources necessary to use VR	Between	77.00	8	9.62	6.83	.00*
	Within	246.74	175	1.41		
	Total	323.74	183			

Table 22 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I have the knowledge necessary to use VR	Between	119.62	8	14.95	13.08	.00*
	Within	200.11	175	1.14		
	Total	319.73	183			
Virtual reality is not compatible with other technologies I use.	Between	14.61	8	1.83	2.29	.02*
	Within	138.81	174	0.80		
	Total	153.42	182			
A specific person (or group) is available for assistance with system difficulties	Between	44.76	8	5.60	3.65	.00*
	Within	264.93	173	1.53		
	Total	309.69	181			
People who are influential in my field think I should use VR in my teaching	Between	29.90	8	3.74	9.35	.00*
	Within	69.52	174	0.40		
	Total	99.42	182			
People who I work with think I should use VR in my teaching	Between	32.18	8	4.02	9.82	.00*
	Within	71.68	175	0.41		
	Total	103.86	183			
My department faculty think I should use VR in my teaching	Between	27.31	8	3.41	8.89	.00*
	Within	66.80	174	0.38		
	Total	94.11	182			
My department head thinks I should use VR in my teaching	Between	36.34	8	4.54	11.17	.00*
	Within	69.92	172	0.41		
	Total	106.25	180			
I intend to use VR more to store teaching materials	Between	54.47	8	6.81	15.55	.00*
	Within	76.20	173	0.44		
	Total	130.67	181			
I intend to use VR more to acquire the knowledge I need to enhance my training	Between	58.53	8	7.32	18.07	.00*
	Within	70.03	173	0.41		
	Total	128.56	181			
I intend to use VR more for preparing for training materials.	Between	51.83	8	6.48	16.99	.00*
	Within	65.96	173	0.38		
	Total	117.79	181			
I intend to use VR more to contact farmers	Between	20.05	8	2.51	5.02	.00*
	Within	84.92	170	0.50		
	Total	104.97	178			
I intend to use VR more to search for information when preparing my programs	Between	53.07	8	6.63	13.37	.00*
	Within	86.35	174	0.75		
	Total	139.42	182			

Table 22 (continued).

Survey Question		*SS*	*df*	*MS*	*F*	*p*
I intend to use virtual reality for more my personal tasks.	Between	51.43	8	6.43	15.81	.00*
	Within	70.37	173	0.41		
	Total	121.80	181			
I intend to use virtual reality for enhancing my knowledge.	Between	68.05	8	8.51	18.74	.00*
	Within	78.52	173	0.45		
	Total	146.57	181			
I intend to use virtual reality more for personal contact.	Between	61.52	8	7.69	19.07	.00*
	Within	70.17	174	0.40		
	Total	131.68	182			
I intend to use virtual reality more in the future in all of my work.	Between	59.42	8	7.43	17.49	.00*
	Within	74.31	175	0.43		
	Total	133.73	183			

*Note. SS= Sum of Squares; MS = Mean Square; * = Significant at p <.05*

Tukey HSD Post-Hoc

Multiple correlations were compiled using Tukey's HSD Post-Hoc Analysis. Analyses were completed by analyzing the 7 behavioral intentions questions from the survey to the rest of the survey questions. A 95% confidence interval was determined, with upper bounds and lower bounds. Mean difference and standard deviations were also calculated (see Table 23, Table 24, Table 25, Table 26, Table 27, Table 28, Table 29, Table 30, Table 31, Table 32, Table 33, Table 34, Table 35, Table 36, Table 37, Table 38, Table 39, Table 40, Table 41, Table 42, Table 43, Table 44, Table 45, Table 46, Table 47, Table 48, Table 49, Table 50, Table 51, Table 52, Table 53, Table 54, Table 55, Table 56, Table 57, Table 58, Table 59, Table 60, Table 61).

Table 23.

Tukey Post-Hoc Multiple Comparison for items "Using virtual reality enables me to accomplish tasks more quickly." and "How comfortable are you using evaluation strategies for virtual reality use?"

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.21	0.17	.95	-0.74	0.32
	Very Little	-0.36	0.15	.30	-0.85	0.12
	4	-0.46	0.20	.35	-1.09	0.17
	Some Influence	-0.95	0.17	.00	-1.48	-0.42
	6	-0.71	0.19	.01	-1.32	-0.11
	Quite a Bit	-1.05	0.19	.00	-1.65	-0.46
	8	-1.71	0.49	.02	-3.24	-0.18
	A Great Deal	-1.21	0.49	.25	-2.74	0.32
2	Nothing	0.21	0.17	.95	-0.32	0.74
	Very Little	-0.15	0.17	.99	-0.68	0.38
	4	-0.25	0.21	.96	-0.92	0.42
	Some Influence	-0.74	0.18	.00	-1.32	-0.17
	6	-0.50	0.21	.27	-1.14	0.14
	Quite a Bit	-0.84	0.20	.00	-1.48	-0.21
	8	-1.50	0.49	.07	-3.05	0.05
	A Great Deal	-1.00	0.49	.53	-2.55	0.55
Very Little	Nothing	0.36	0.15	.30	-0.12	0.85
	2	0.15	0.17	.99	-0.38	0.68
	4	-0.10	0.20	1.00	-0.72	0.53
	Some Influence	-0.59	0.17	.02	-1.12	-0.06
	6	-0.35	0.19	.68	-0.95	0.26
	Quite a Bit	-0.69	0.19	.01	-1.28	-0.10
	8	-1.35	0.49	.14	-2.88	0.19
	A Great Deal	-0.85	0.49	.73	-2.38	0.69
4	Nothing	0.46	0.20	.35	-0.17	1.09
	2	0.25	0.21	.96	-0.42	0.92
	Very Little	0.10	0.20	1.00	-0.53	0.72
	Some Influence	-0.49	0.21	.34	-1.16	0.18
	6	-0.25	0.23	.98	-0.98	0.48
	Quite a Bit	-0.59	0.23	.20	-1.31	0.13

Table 23 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	8	-1.25	0.51	.25	-2.84	0.34
	A Great Deal	-0.75	0.51	.86	-2.34	0.84
	Nothing	0.95	0.17	.00	0.42	1.48
	2	0.74	0.18	.00	0.17	1.32
	Very Little	0.59	0.17	.02	0.06	1.12
	4	0.49	0.21	.34	-0.18	1.16
	6	0.24	0.21	.96	-0.4	0.88
	Quite a Bit	-0.10	0.20	1.00	-0.73	0.53
6	8	-0.76	0.49	.84	-2.31	0.79
	A Great Deal	-0.26	0.49	1.00	-1.81	1.29
	Nothing	0.71	0.19	.01	0.11	1.32
	2	0.50	0.21	.27	-0.14	1.14
	Very Little	0.35	0.19	.68	-0.26	0.95
	4	0.25	0.23	.98	-0.48	0.98
	Some Influence	-0.24	0.21	.96	-0.88	0.4
	Quite a Bit	-0.34	0.22	.83	-1.04	0.35
Quite a Bit	8	-1.00	0.50	.55	-2.58	0.58
	A Great Deal	-0.50	0.50	.99	-2.08	1.08
	Nothing	1.05	0.19	.00	0.46	1.65
	2	0.84	0.20	.00	0.21	1.48
	Very Little	0.69	0.19	.01	0.1	1.28
	4	0.59	0.23	.20	-0.13	1.31
	Some Influence	0.10	0.20	1.00	-0.53	0.73
	6	0.34	0.22	.83	-0.35	1.04
8	8	-0.66	0.50	.93	-2.23	0.91
	A Great Deal	-0.16	0.50	1.00	-1.73	1.41
	Nothing	1.71	0.49	.02	0.18	3.24
	2	1.50	0.49	.07	-0.05	3.05
	Very Little	1.35	0.49	.14	-0.19	2.88
	4	1.25	0.51	.25	-0.34	2.84
	Some Influence	0.76	0.49	.84	-0.79	2.31
	6	1.00	0.50	.55	-0.58	2.58
	Quite a Bit	0.66	0.50	.93	-0.91	2.23
	A Great Deal	0.50	0.67	1.00	-1.61	2.61
	Nothing	1.21	0.49	.25	-0.32	2.74

Table 23 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	2	1.00	0.49	.53	-0.55	2.55
	Very Little	0.85	0.49	.73	-0.69	2.38
	4	0.75	0.51	.86	-0.84	2.34
	Some Influence	0.26	0.49	1.00	-1.29	1.81
	6	0.50	0.50	.99	-1.08	2.08
	Quite a Bit	0.16	0.50	.00	-1.41	1.73
	8	-0.50	0.67	1.00	-2.61	1.61

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?.

Table 24.

Tukey Post-Hoc Multiple Correlations for item "Using virtual reality enhances the quality of my work." and "How comfortable are you using evaluation strategies for virtual reality use?"

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.17	0.17	0.99	-0.71	0.38
	Very Little	-0.26	0.16	0.79	-0.76	0.24
	4	-0.26	0.21	0.95	-0.91	0.40
	Some Influence	-0.75*	0.18	0.00	-1.31	-0.19
	6	-0.52	0.20	0.19	-0.15	0.11
	Quite a Bit	-0.97*	0.20	0.00	-1.59	-0.36
	8	-0.63	0.51	0.95	-2.22	0.96
	A Great Deal	-0.63	0.51	0.95	-2.22	0.96
2	Nothing	0.17	0.17	0.99	-0.38	0.71
	Very Little	-0.09	0.17	1.00	-0.64	0.45
	4	-0.09	0.22	1.00	-0.78	0.60
	Some Influence	-0.58	0.19	0.07	-1.18	0.02
	6	-0.35	0.21	0.76	-1.02	0.31
	Quite a Bit	-0.81	0.21	0.00	-1.46	-0.15
	8	-0.46	0.51	0.99	-2.07	1.14
	A Great Deal	-0.46	0.51	0.99	-2.07	1.14
Very Little	Nothing	0.26	0.16	0.79	-0.24	0.76
	2	0.09	0.17	1.00	-0.45	0.64
	4	0.00	0.21	1.00	-0.65	0.65
	Some Influence	-0.49	0.18	0.14	-1.04	0.07
	6	-0.26	0.20	0.93	-0.89	0.36
	Quite a Bit	-0.71*	0.20	0.01	-1.33	-0.10
	8	-0.37	0.51	1.00	-1.96	1.22
	A Great Deal	-0.37	0.51	1.00	-1.96	1.22
4	Nothing	0.26	0.21	0.95	-0.40	0.91

Table 24 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	2	0.09	0.22	1.00	-0.60	0.78
	Very Little	0.00	0.21	1.00	-0.65	0.65
	Some Influence	-0.49	0.22	0.40	-1.19	0.21
	6	-0.26	0.24	0.97	-1.02	0.49
	Quite a Bit	-0.72	0.24	0.07	-1.46	0.03
	8	-0.38	0.52	1.00	-2.02	1.27
	A Great Deal	-0.38	0.52	1.00	-2.02	1.27
	Nothing	0.75*	0.18	0.00	0.19	1.31
6	2	0.58	0.19	0.07	-0.02	1.18
	Very Little	0.49	0.18	0.14	-0.07	1.04
	4	0.49	0.22	0.40	-0.21	1.19
	6	0.23	0.21	0.98	-0.45	0.90
	Quite a Bit	-0.23	0.21	0.98	-0.89	0.44
	8	0.12	0.51	1.00	-1.49	1.73
	A Great Deal	0.12	0.51	1.00	-1.49	1.73
	Nothing	0.52	0.20	0.19	-0.11	1.15
Quite a Bit	2	0.35	0.21	0.76	-0.31	1.02
	Very Little	0.26	0.20	0.93	-0.36	0.89
	4	0.26	0.24	0.97	-0.49	1.02
	Some Influence	-0.23	0.21	0.98	-0.90	0.45
	Quite a Bit	-0.45	0.23	0.57	-1.17	0.27
	8	-0.11	0.52	1.00	-1.75	1.52
	A Great Deal	-0.11	0.52	1.00	-1.75	1.52
	Nothing	0.97*	0.20	0.00	0.36	1.59
8	2	0.81*	0.21	0.00	0.15	1.46
	Very Little	0.71*	0.20	0.01	0.10	1.33
	4	0.72	0.24	0.07	-0.03	1.46
	Some Influence	0.23	0.21	0.98	-0.44	0.89
	6	0.45	0.23	0.57	-0.27	1.17
	8	0.34	0.52	1.00	-1.29	1.97
	A Great Deal	0.34	0.52	1.00	-1.29	1.97

Table 24 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
8	Nothing	0.63	0.51	0.95	-0.96	2.22
	2	0.46	0.51	0.99	-1.14	2.07
	Very Little	0.37	0.51	1.00	-1.22	1.96
	4	0.38	0.52	1.00	-1.27	2.02
	Some Influence	-0.12	0.51	1.00	-1.73	1.49
	6	0.11	0.52	1.00	-1.52	1.75
	Quite a Bit	-0.34	0.52	1.00	-1.97	1.29
	A Great Deal	0.00	0.70	1.00	-2.19	2.19
A Great Deal	Nothing	0.63	0.51	0.95	-0.96	2.22
	2	0.46	0.51	0.99	-1.14	2.07
	Very Little	0.37	0.51	1.00	-1.22	1.96
	4	0.38	0.52	1.00	-1.27	2.02
	Some Influence	-0.12	0.51	1.00	-1.73	1.49
	6	0.11	0.52	1.00	-1.52	1.75
	Quite a Bit	-0.34	0.52	1.00	-1.97	1.29
	8	0.00	0.70	1.00	-2.19	2.19

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 25.

Tukey Post-Hoc Multiple Comparison for item "Using virtual reality enables me to accomplish tasks more quickly." and "How comfortable are you using evaluation strategies for virtual reality use?"

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.28	0.18	0.84	-0.85	0.29
	Very Little	-0.47	0.17	0.10	-0.99	0.04
	4	-0.69	0.21	0.04	-1.36	-0.02
	Some Influence	-1.01*	0.18	0.00	-1.58	-0.43
	6	-1.01*	0.21	0.00	-1.68	-0.39
	Quite a Bit	-1.32*	0.20	0.00	-1.95	-0.68
	8	-1.82*	0.52	0.02	-3.46	-0.18
	A Great Deal	-1.32	0.52	0.23	-0.30	0.32
2	Nothing	0.28	0.18	0.84	-0.29	0.85
	Very Little	-0.20	0.18	0.98	-0.76	0.37
	4	-0.41	0.23	0.67	-1.12	0.30
	Some Influence	-0.73*	0.20	0.01	-1.32	-0.11
	6	-0.76*	0.22	0.02	-1.45	-0.07
	Quite a Bit	-1.04*	0.22	0.00	-1.71	-0.36
	8	-1.54	0.53	0.09	-3.19	0.12
	A Great Deal	-1.04	0.53	0.57	-2.69	0.62
Very Little	Nothing	0.47	0.17	0.10	-0.04	0.99
	2	0.20	0.18	0.98	-0.37	0.76
	4	-0.22	0.21	0.98	-0.89	0.46
	Some Influence	-0.53	0.18	0.09	-1.11	0.04
	6	-0.56	0.21	0.14	-1.21	0.08
	Quite a Bit	-0.84*	0.20	0.00	-1.48	-0.21
	8	-1.34	0.52	0.21	-2.98	0.30
	A Great Deal	-0.84	0.52	0.80	-2.48	0.80
4	Nothing	0.69*	0.21	0.04	0.02	1.36
	2	0.41	0.23	0.67	-0.30	1.12
	Very Little	0.22	0.21	0.98	-0.46	0.89
	Some Influence	-0.32	0.23	0.90	-1.04	0.40
	6	-0.35	0.25	0.90	-1.12	0.43

Table 25 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.63	0.24	0.21	-1.39	0.14
	8	-1.13	0.54	0.49	-2.82	0.57
	A Great Deal	-0.63	0.54	0.96	-2.32	1.07
	Nothing	1.01*	0.18	0.00	0.43	1.58
	2	0.73*	0.20	0.01	0.11	1.35
	Very Little	0.53	0.18	0.09	-0.04	1.11
	4	0.32	0.23	0.90	-0.40	1.04
	6	-0.03	0.22	1.00	-0.72	0.66
6	Quite a Bit	-0.31	0.22	0.89	-0.99	0.37
	8	-0.81	0.53	0.84	-2.47	0.85
	A Great Deal	-0.31	0.53	1.00	-1.97	1.35
	Nothing	1.04*	0.21	0.00	0.39	1.68
	2	0.76*	0.22	0.02	0.07	1.45
	Very Little	0.56	0.21	0.14	-0.08	1.21
	4	0.35	0.25	0.90	-0.43	1.12
	Some Influence	0.03	0.22	1.00	-0.66	0.72
Quite a Bit	Quite a Bit	-0.28	0.24	0.96	-1.02	0.47
	8	-0.78	0.54	0.88	-2.46	0.91
	A Great Deal	-0.28	0.54	1.00	-1.96	1.41
	Nothing	1.32*	0.20	0.00	0.68	1.95
	2	1.04*	0.22	0.00	0.36	1.71
	Very Little	0.84*	0.20	0.00	0.21	1.48
	4	0.63	0.24	0.21	-0.14	1.39
	Some Influence	0.31	0.22	0.89	-0.37	0.99
	6	0.28	0.24	0.96	-0.47	1.02
8	8	-0.50	0.54	0.99	-2.18	1.18
	A Great Deal	0.00	0.54	1.00	-1.68	1.68
	Nothing	1.82*	0.52	0.02	0.18	3.46
	2	1.54	0.53	0.09	-0.12	3.19
	Very Little	1.34	0.52	0.21	-0.30	2.98
	4	1.13	0.54	0.49	-0.57	2.82
	Some Influence	0.81	0.53	0.84	-0.85	2.47
	6	0.78	0.54	0.88	-0.91	2.46
	Quite a Bit	0.50	0.54	0.99	-1.18	2.18
	A Great Deal	0.50	0.72	1.00	-1.76	2.76

Table 25 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.32	0.52	0.23	-0.32	2.96
	2	1.04	0.53	0.57	-0.62	2.69
	Very Little	0.84	0.52	0.80	-0.80	2.48
	4	0.63	0.54	0.96	-1.07	2.32
	Some Influence	0.31	0.53	1.00	-1.35	1.97
	6	0.28	0.54	1.00	-1.41	1.96
	Quite a Bit	0.00	0.54	1.00	-1.68	1.68
	8	-0.50	0.72	1.00	-2.76	1.76

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 26.

Tukey Post-Hoc Multiple Comparison for item "Using virtual reality, I can do much more work." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.31	0.17	0.60	-0.87	0.21
	Very Little	-0.47	0.16	0.07	-0.96	0.02
	4	-0.68*	0.21	0.03	-1.32	-0.04
	Some Influence	-0.98*	0.18	0.00	-1.53	-0.43
	6	-0.70*	0.20	0.01	-1.32	-0.08
	Quite a Bit	-1.21*	0.19	0.00	-1.82	-0.60
	8	-2.37*	0.50	0.00	-3.93	-0.80
	A Great Deal	-1.87	0.50	0.07	-3.43	-0.30
2	Nothing	0.33	0.17	0.60	-0.21	0.87
	Very Little	-0.14	0.17	1.00	-0.68	0.40
	4	-0.35	0.22	0.80	-1.03	0.33
	Some Influence	-0.65*	0.19	0.02	-1.25	-0.06
	6	-0.37	0.21	0.70	-1.03	0.29
	Quite a Bit	-0.88*	0.21	0.00	-1.53	-0.23
	8	-2.04*	0.50	0.00	-3.62	-0.46
	A Great Deal	-1.54	0.50	0.06	-3.12	0.04
Very Little	Nothing	0.47	0.16	0.07	-0.02	0.96
	2	0.14	0.17	1.00	-0.40	0.68
	4	-0.21	0.20	0.98	-0.85	0.43
	Some Influence	-0.51	0.17	0.08	-1.06	0.03
	6	-0.23	0.20	0.96	-0.85	0.38
	Quite a Bit	-0.74*	0.19	0.01	-1.34	-0.14
	8	-1.90*	0.50	0.01	-3.46	-0.33
	A Great Deal	-1.40	0.50	0.12	-2.96	0.17
4	Nothing	0.68	0.21	0.03	-0.04	1.32
	2	0.35	0.22	0.80	-0.33	1.03
	Very Little	0.21	0.20	0.98	-0.43	0.85
	Some Influence	-0.30	0.22	0.90	-0.99	0.38
	6	-0.02	0.24	1.00	-0.76	0.72
	Quite a Bit	-0.53	0.23	0.37	-1.26	0.20
	-8	-1.69*	0.52	0.03	-3.31	-0.07

Table 26. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-0.63	0.54	0.96	-2.32	1.07
	Nothing	1.01*	0.18	0.00	0.43	1.58
	2	0.73*	0.20	0.01	0.11	1.35
	Very Little	0.53	0.18	0.09	-0.04	1.11
	4	0.32	0.23	0.90	-0.40	1.04
	6	-0.03	0.22	1.00	-0.72	0.66
	Quite a Bit	-0.31	0.22	0.89	-0.99	0.37
	8	-0.81	0.53	0.84	-2.47	0.85
6	A Great Deal	-0.31	0.53	1.00	-1.97	1.35
	Nothing	1.04*	0.21	0.00	0.39	1.68
	2	0.76*	0.22	0.02	0.07	1.45
	Very Little	0.56	0.21	0.14	-0.08	1.21
	4	0.35	0.25	0.90	-0.43	1.12
	Some Influence	0.03	0.22	1.00	-0.66	0.72
	Quite a Bit	-0.28	0.24	0.96	-1.02	0.47
	8	-0.78	0.54	0.88	-2.46	0.91
Quite a Bit	A Great Deal	-0.28	0.54	1.00	-1.96	1.41
	Nothing	1.32*	0.20	0.00	0.68	1.95
	2	1.04*	0.22	0.00	0.36	1.71
	Very Little	0.84*	0.20	0.00	0.21	1.48
	4	0.63	0.24	0.21	-0.14	1.39
	Some Influence	0.31	0.22	0.89	-0.37	0.99
	6	0.28	0.24	0.96	-0.47	1.02
	8	-0.50	0.54	0.99	-2.18	1.18
8	A Great Deal	0.00	0.54	1.00	-1.68	1.68
	Nothing	1.82*	0.52	0.02	0.18	3.46
	2	1.54	0.53	0.09	-0.12	3.19
	Very Little	1.34	0.52	0.21	-0.30	2.98
	4	1.13	0.54	0.49	-0.57	2.82
	Some Influence	0.81	0.53	0.84	-0.85	2.47
	6	0.78	0.54	0.88	-0.91	2.46
	Quite a Bit	0.50	0.54	0.99	-1.18	2.18
	A Great Deal	0.50	0.72	1.00	-1.76	2.76
	Nothing	1.87*	0.50	0.01	0.30	3.43
	2	1.54	0.50	0.06	-0.04	3.12

Table 26. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	1.40	0.50	0.12	-0.17	2.96
	4	1.19	0.52	0.35	-0.43	2.81
	Some Influence	0.89	0.50	0.71	-0.70	2.47
	6	1.17	0.51	0.36	-0.44	2.77
	Quite a Bit	0.66	0.51	0.93	-0.95	2.26
	8	-0.50	0.69	1.00	-2.66	1.66

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 27.

Tukey Post-Hoc Multiple Correlations for item "I find it easy to use virtual reality to do what I want it to do." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.55*	0.16	0.03	-1.06	-0.04
	Very Little	-0.74*	0.15	0.00	-1.21	-0.28
	4	-0.51	0.20	0.20	-1.14	0.11
	Some Influence	-1.11*	0.16	0.00	-1.62	-0.59
	6	-1.07*	0.19	0.00	-1.65	-0.48
	Quite a Bit	-1.04*	0.18	0.00	-1.61	-0.47
	8	-2.01*	0.47	0.00	-3.50	-0.53
	A Great Deal	-2.01*	0.47	0.00	-3.50	-0.53
2	Nothing	0.55*	0.16	0.03	0.04	1.06
	Very Little	-0.19	0.16	0.96	-0.71	0.32
	4	0.04	0.21	1.00	-0.62	0.70
	Some Influence	-0.56*	0.18	0.05	-1.11	0.00
	6	-0.52	0.20	0.19	-1.14	0.11
	Quite a Bit	-0.49	0.20	0.24	-1.10	0.12
	8	-1.46	0.48	0.06	-0.30	0.00
	A Great Deal	-1.46	0.48	0.06	-2.97	0.00
Very Little	Nothing	0.77*	0.15	0.00	0.28	1.21
	2	0.19	0.16	0.96	-0.32	0.71
	4	0.23	0.20	0.96	-0.39	0.85
	Some Influence	-0.36	0.16	0.40	-0.88	0.15
	6	-0.33	0.19	0.72	-0.91	0.26
	Quite a Bit	-0.30	0.18	0.79	-0.87	0.28
	8	-1.27	0.47	0.16	-2.76	0.22
	A Great Deal	-1.27	0.47	0.16	-2.76	0.22
4	Nothing	0.51	0.20	0.20	-0.11	1.14
	2	-0.04	0.21	1.00	-0.70	0.62
	Very Little	-0.23	0.20	0.96	-0.85	0.39
	Some Influence	-0.59	0.21	0.12	-1.25	0.07
	6	-0.56	0.23	0.27	-1.27	0.16

Table 27. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.53	0.23	0.33	-1.23	0.18
	8	-1.50	0.49	0.06	-3.04	0.04
	A Great Deal	-1.50	0.49	0.06	-3.04	0.04
	Nothing	1.11*	0.16	0.00	0.59	1.62
	2	0.56	0.18	0.05	0.00	1.11
	Very Little	0.36	0.16	0.40	-0.15	0.88
	4	0.59	0.21	0.12	-0.07	1.25
	6	0.04	0.20	1.00	-0.59	0.66
6	Quite a Bit	0.07	0.20	1.00	-0.55	0.68
	8	-0.91	0.48	0.62	-2.41	0.60
	A Great Deal	-0.91	0.48	0.62	-2.41	0.60
	Nothing	1.07*	0.19	0.00	0.48	1.65
	2	0.52	0.20	0.19	-0.11	1.14
	Very Little	0.33	0.19	0.72	-0.26	0.91
	4	0.56	0.23	0.27	-0.16	1.27
	Some Influence	-0.04	0.20	1.00	-0.66	0.59
Quite a Bit	Quite a Bit	0.03	0.22	1.00	-0.65	0.70
	8	-0.94	0.49	0.59	-2.47	0.58
	A Great Deal	-0.94	0.49	0.59	-2.47	0.58
	Nothing	1.04	0.18	0.00	0.47	1.61
	2	0.49	0.20	0.24	-0.12	1.10
	Very Little	0.30	0.18	0.79	-0.28	0.87
	4	0.53	0.23	0.33	-0.18	1.23
	Some Influence	-0.07	0.20	1.00	-0.68	0.55
	6	-0.03	0.22	1.00	-0.70	0.65
8	8	-0.97	0.39	0.54	-2.50	0.55
	A Great Deal	-0.97	0.39	0.54	-2.50	0.55
	Nothing	2.01*	0.47	0.00	0.53	3.50
	2	1.46	0.48	0.06	-0.04	2.97
	Very Little	1.27	0.47	0.16	-0.22	2.76
	4	1.50	0.49	0.06	-0.04	3.04
	Some Influence	0.91	0.48	0.62	-0.60	2.41
	6	0.94	0.49	0.59	-0.58	2.47
	Quite a Bit	0.97	0.49	0.54	-0.55	2.50
	A Great Deal	0.00	0.65	1.00	-2.05	2.05

Table 27. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.01*	0.47	0.00	0.53	3.50
	2	1.46	0.48	0.06	-0.04	2.97
	Very Little	1.27	0.47	0.16	-0.22	2.76
	4	1.50	0.49	0.06	-0.04	3.04
	Some Influence	0.91	0.48	0.62	-0.60	2.41
	6	0.94	0.49	0.59	-0.58	2.47
	Quite a Bit	0.97	0.49	0.54	-0.55	2.50
	8	0.00	0.65	1.00	-2.05	2.05

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 28.

Tukey Post-Hoc Multiple Comparison for item "I find it easy to use virtual reality." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.43	0.17	0.24	-0.97	0.11
	Very Little	-0.80*	0.16	0.00	-1.29	-0.30
	4	-0.86*	0.22	0.00	-1.54	-0.18
	Some Influence	-1.16*	0.18	0.00	-1.72	-0.60
	6	-1.03*	0.20	0.00	-1.65	-0.40
	Quite a Bit	-1.10*	0.20	0.00	-1.71	-0.48
	8	-1.36	0.50	0.16	-2.94	0.22
	A Great Deal	-2.36*	0.50	0.00	-3.94	-0.78
2	Nothing	0.43	0.17	0.24	-0.11	0.97
	Very Little	-0.36	0.17	0.47	-0.91	0.18
	4	-0.43	0.23	0.63	-1.14	0.29
	Some Influence	-0.73*	0.19	0.01	-1.33	-0.13
	6	-0.60	0.21	0.11	-1.26	0.06
	Quite a Bit	-0.67*	0.21	0.04	-1.31	-0.02
	8	-0.93	0.51	0.67	-2.53	0.67
	A Great Deal	-1.93*	0.51	0.01	-3.53	-0.33
Very Little	Nothing	0.80*	0.16	0.00	0.30	1.29
	2	0.36	0.17	0.47	-0.18	0.91
	4	-0.06	0.22	1.00	-0.74	0.62
	Some Influence	-0.36	0.18	0.52	-0.92	0.20
	6	-0.23	0.20	0.96	-0.85	0.39
	Quite a Bit	-0.30	0.20	0.83	-0.91	0.31
	8	-0.56	0.50	0.97	-2.15	1.02
	A Great Deal	-1.56	0.50	0.06	-3.15	0.02
4	Nothing	0.86*	0.22	0.00	0.18	1.54
	2	0.43	0.23	0.63	-0.29	1.14
	Very Little	0.06	0.22	1.00	-0.62	0.74
	Some Influence	-0.30	0.23	0.93	-1.03	0.43
	6	-0.17	0.25	1.00	-0.94	0.61
	Quite a Bit	-0.24	0.25	0.99	-1.01	0.53
	-8	-0.50	0.53	0.99	-2.15	1.15

Table 28. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-1.50	0.53	0.11	-3.15	0.15
	Nothing	1.16*	0.18	0.00	0.60	1.72
	2	0.73*	0.19	0.01	0.13	1.33
	Very Little	0.36	0.18	0.52	-0.20	0.92
	4	0.30	0.23	0.93	-0.43	1.03
	6	0.13	0.22	1.00	-0.54	0.81
	Quite a Bit	0.06	0.21	1.00	-0.60	0.73
	8	-0.20	0.51	1.00	-1.80	1.40
6	A Great Deal	-1.20	0.51	0.32	-2.80	0.40
	Nothing	1.03*	0.20	0.00	0.40	1.65
	2	0.60	0.21	0.11	-0.06	1.26
	Very Little	0.23	0.20	0.96	-0.39	0.85
	4	0.17	0.25	1.00	-0.61	0.94
	Some Influence	-0.13	0.22	1.00	-0.81	0.54
	Quite a Bit	-0.07	0.23	1.00	-0.79	0.65
	8	-0.33	0.52	1.00	-1.96	1.29
Quite a Bit	A Great Deal	-1.33	0.52	0.21	-2.96	0.29
	Nothing	1.10*	0.20	0.00	0.48	1.71
	2	0.67*	0.21	0.04	0.02	1.31
	Very Little	0.30	0.20	0.83	-0.31	0.91
	4	0.24	0.25	0.99	-0.53	1.01
	Some Influence	-0.06	0.21	1.00	-0.73	0.60
	6	0.07	0.23	1.00	-0.65	0.79
	8	-0.26	0.52	1.00	-1.89	1.36
8	A Great Deal	-1.26	0.52	0.27	-2.89	0.36
	Nothing	1.36	0.50	0.16	-0.22	2.94
	2	0.93	0.51	0.67	-0.67	2.53
	Very Little	0.56	0.50	0.97	-1.02	2.15
	4	0.50	0.53	0.99	-1.15	2.15
	Some Influence	0.20	0.51	1.00	-1.40	1.80
	6	0.33	0.52	1.00	-1.29	1,96
	Quite a Bit	0.26	0.52	1.00	-1.36	1.89
	A Great Deal	-1.00	0.70	0.88	-3.18	1.18
	Nothing	2.36*	0.50	0.00	0.78	3.94
	2	1.93*	0.51	0.01	0.33	3.53

Table 28. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	1.56	0.50	0.06	-0.02	3.15
	4	1.50	0.53	0.11	-0.15	3.15
	Some Influence	1.20	0.51	0.32	-0.40	2.80
	6	1.33	0.52	0.21	-0.29	2.96
	Quite a Bit	1.26	0.52	0.27	-0.36	2.89
	8	1.00	0.70	0.88	-1.18	3.18

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 29.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more in training sessions with my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.29	0.17	0.75	-0.82	0.24
	Very Little	-0.51*	0.16	0.03	-1.00	-0.03
	4	-0.80*	0.20	0.00	-1.43	-0.16
	Some Influence	-1.10*	0.17	0.00	-1.64	-0.56
	6	-1.08*	0.20	0.00	-1.69	-0.47
	Quite a Bit	1.31*	0.19	0.00	-1.91	-0.71
	8	-1.86*	0.50	0.01	-3.42	-0.30
	A Great Deal	-1.86*	0.50	0.01	-3.42	-0.30
2	Nothing	0.29	0.17	0.75	-0.24	0.82
	Very Little	-0.23	0.17	0.92	-0.76	0.31
	4	-0.51	0.21	0.30	-1.18	0.16
	Some Influence	-0.81*	0.18	0.00	-1.39	-0.23
	6	-0.79*	0.21	0.01	-1.44	-0.15
	Quite a Bit	-1.02*	0.20	0.00	-0.17	-0.38
	8	-1.57*	0.50	0.05	-3.14	0.00
	A Great Deal	-1.57*	0.50	0.05	-3.14	0.00
Very Little	Nothing	0.51*	0.16	0.03	0.03	1.00
	2	0.23	0.17	0.92	-0.31	0.76
	4	-0.28	0.23	0.90	-0.92	-0.35
	Some Influence	-0.59*	0.17	0.02	-1.12	-0.05
	6	-0.57	0.20	0.09	-1.18	0.04
	Quite a Bit	-0.79*	0.19	0.00	-1.39	-0.19
	8	-1.35	0.50	0.15	-2.90	0.21
	A Great Deal	-1.35	0.50	0.15	-2.90	0.21
4	Nothing	0.80*	0.20	0.00	0.16	1.43
	2	0.51	0.21	0.30	-0.16	1.18
	Very Little	0.28	0.20	0.90	-0.35	0.92
	Some Influence	-0.30	0.22	0.89	-0.98	0.37
	6	-0.29	0.24	0.95	-1.02	0.45

Table 29. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.51	0.23	0.41	-1.24	0.22
	8	-1.06	0.51	0.50	-2.67	0.55
	A Great Deal	-1.06	0.51	0.50	-2.67	0.55
	Nothing	1.10*	0.17	0.00	0.56	1.64
	2	0.81*	0.18	0.00	0.23	1.39
	Very Little	0.59*	0.17	0.02	0.05	1.12
	4	0.30	0.22	0.89	-0.37	0.98
	6	0.02	0.21	1.00	-0.63	0.67
6	Quite a Bit	-0.21	0.21	0.99	-0.85	0.44
	8	0.76	0.50	0.85	-2.33	0.81
	A Great Deal	-0.76	0.50	0.85	-2.33	0.81
	Nothing	1.08*	0.20	0.00	0.47	1.69
	2	0.79*	0.21	0.01	0.15	1.44
	Very Little	0.57	0.20	0.09	-0.04	1.18
	4	0.29	0.24	0.95	-0.45	1.02
	Some Influence	-0.11	0.21	1.00	-0.67	0.63
Quite a Bit	Quite a Bit	-0.23	0.23	0.99	-0.93	0.48
	8	-0.78	0.51	0.84	-2.38	0.82
	A Great Deal	-0.78	0.51	0.84	-2.38	0.82
	Nothing	1.31*	0.19	0.00	0.71	1.91
	2	1.02*	0.20	0.00	0.38	1.66
	Very Little	0.79*	0.19	0.00	0.19	1.39
	4	0.51	0.23	0.41	-0.22	1.24
	Some Influence	0.21	0.21	0.99	-0.44	0.85
	6	0.23	0.23	0.99	-0.48	0.93
8	8	-0.55	0.51	0.98	-2.15	1.04
	A Great Deal	-0.55	0.51	0.98	-2.15	1.04
	Nothing	1.86*	0.50	0.01	0.30	3.42
	2	1.57*	0.50	0.05	0.00	3.14
	Very Little	1.35	0.50	0.15	-0.21	2.90
	4	1.06	0.51	0.50	-0.55	2.67
	Some Influence	0.76	0.50	0.85	-0.81	2.33
	6	0.78	0.51	0.84	-0.82	2.38
	Quite a Bit	0.55	0.51	0.98	-1.04	2.15
	A Great Deal	0.00	0.68	1.00	-2.15	2.15

Table 29. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.86*	0.50	0.01	0.30	3.42
	2	1.57*	0.50	0.05	0.00	3.14
	Very Little	1.35	0.50	0.15	-0.21	2.90
	4	1.06	0.51	0.50	-0.55	2.67
	Some Influence	0.76	0.50	0.85	-0.81	2.33
	6	0.78	0.51	0.84	-0.82	2.38
	Quite a Bit	0.55	0.51	0.98	-1.04	2.15
	8	0.00	0.68	1.00	-2.15	2.15

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 30.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more to keep in touch with my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.40	0.16	0.25	-0.91	0.11
	Very Little	-0.64*	0.15	0.00	-1.10	-0.18
	4	-1.02*	0.19	0.00	-1.67	-0.45
	Some Influence	-1.21*	0.16	0.00	-1.73	-0.70
	6	-1.10*	0.19	0.00	-1.69	-0.52
	Quite a Bit	-1.49	0.18	0.00	-2.06	-0.92
	8	-1.44	0.47	0.07	-2.92	0.05
	A Great Deal	-1.94*	0.47	0.00	-3.42	-0.45
2	Nothing	0.40	0.16	0.25	-0.11	0.91
	Very Little	-0.24	0.16	0.86	-0.75	0.27
	4	-0.66*	0.20	0.04	-1.30	-0.02
	Some Influence	-0.81*	0.18	0.00	-1.37	-0.26
	6	-0.70*	0.20	0.01	-1.32	-0.08
	Quite a Bit	-1.09*	0.19	0.00	-1.70	-0.48
	8	-1.04	0.48	0.43	-2.53	0.46
	A Great Deal	-1.54*	0.48	0.04	-3.03	-0.04
Very Little	Nothing	0.64*	0.15	0.00	0.18	1.10
	2	0.24	0.16	0.86	-0.27	0.75
	4	-0.42	0.19	0.43	-1.03	0.19
	Some Influence	-0.57*	0.16	0.02	-1.08	-0.06
	6	-0.46	0.19	0.25	-1.04	0.12
	Quite a Bit	-0.85*	0.18	0.00	-1.42	-0.28
	8	-0.80	0.47	0.76	-2.28	0.69
	A Great Deal	-1.30	0.47	0.14	-2.78	0.19
4	Nothing	1.06*	0.19	0.00	0.45	1.67
	2	0.66*	0.20	0.04	0.02	1.30
	Very Little	0.42	0.19	0.43	-0.19	1.03
	Some Influence	-0.15	0.21	1.00	-0.80	0.49
	6	-0.04	0.22	1.00	-0.74	0.66

Table 30. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.43	0.22	0.59	-1.12	0.27
	8	-0.38	0.49	1.00	-1.91	1.16
	A Great Deal	-0.88	0.49	0.69	-2.41	0.66
	Nothing	1.21*	0.16	0.00	0.70	1.73
	2	0.81*	0.18	0.00	0.26	1.37
	Very Little	0.57*	0.16	0.02	0.06	2.08
	4	0.15	0.21	1.00	-0.49	0.80
	6	0.11	0.20	1.00	-0.51	0.73
6	Quite a Bit	-0.28	0.20	0.89	-0.89	0.34
	8	-0.22	0.48	1.00	-1.72	1.28
	A Great Deal	-0.72	0.48	0.85	-2.22	0.78
	Nothing	1.10*	0.19	0.00	0.52	1.69
	2	0.70*	0.20	0.01	0.08	1.32
	Very Little	0.46	0.19	0.25	-0.12	1.04
	4	0.04	0.22	1.00	-0.66	0.74
	Some Influence	-0.11	0.20	1.00	-0.73	0.51
Quite a Bit	Quite a Bit	-0.39	0.21	0.68	-1.06	0.29
	8	-0.33	0.49	1.00	-1.86	1.19
	A Great Deal	-0.83	0.49	0.74	-2.36	0.69
	Nothing	1.49*	0.18	0.00	0.92	2.06
	2	1.09*	0.19	0.00	0.48	1.70
	Very Little	0.85*	0.18	0.00	0.28	1.42
	4	0.43	0.22	0.59	-0.27	1.12
	Some Influence	0.28	0.20	0.89	-0.34	0.89
	6	0.39	0.21	0.68	-0.29	1.06
8	8	0.05	0.48	1.00	-1.47	1.57
	A Great Deal	-0.45	0.48	0.99	-1.97	1.07
	Nothing	1.44	0.47	0.07	-0.05	2.92
	2	1.04	0.48	0.43	-0.46	2.53
	Very Little	0.80	0.47	0.76	-0.69	2.28
	4	0.38	0.49	1.00	-1.16	1.91
	Some Influence	0.22	0.48	1.00	-1.28	1.72
	6	0.33	0.49	1.00	-1.19	1.86
	Quite a Bit	-0.05	0.48	1.00	-1.57	1.47
	A Great Deal	-0.50	0.65	1.00	-2.54	1.54

Table 30. (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.94*	0.47	0.00	0.45	3.42
	2	1.54*	0.48	0.04	0.04	3.03
	Very Little	1.30	0.47	0.14	-0.19	2.78
	4	0.88	0.49	0.69	-0.66	2.41
	Some Influence	0.72	0.48	0.85	-0.78	2.22
	6	0.83	0.49	0.74	-0.69	2.36
	Quite a Bit	0.45	0.48	0.99	-1.07	1.97
	8	0.50	0.65	1.00	-1.54	2.54

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 31.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more to get information out of my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.47	0.17	0.14	-1.00	0.07
	Very Little	-0.66*	0.16	0.00	-1.15	-0.17
	4	-0.87*	0.20	0.00	-1.51	-0.23
	Some Influence	-0.84*	0.17	0.00	-1.38	-0.30
	6	-0.99*	0.20	0.00	-1.60	-0.38
	Quite a Bit	-1.43*	0.19	0.00	-2.03	-0.83
	8	-0.43	0.49	0.99	-1.98	1.11
	A Great Deal	-1.93*	0.49	0.00	-3.48	-0.39
2	Nothing	0.47	0.17	0.14	-0.07	1.00
	Very Little	-0.20	0.17	0.96	-0.72	0.33
	4	-0.40	0.21	0.62	1.07	0.27
	Some Influence	-0.37	0.18	0.52	-0.95	0.20
	6	-0.52	0.21	0.22	-1.16	0.12
	Quite a Bit	-0.96*	0.20	0.00	-1.60	-0.33
	8	0.04	0.50	1.00	-1.52	1.59
	A Great Deal	-1.46	0.50	0.08	-3.02	0.09
Very Little	Nothing	0.66*	0.16	0.00	0.17	1.15
	2	0.20	0.17	0.96	-0.33	0.72
	4	-0.21	0.20	0.98	-0.84	0.43
	Some Influence	-0.18	0.17	0.98	-0.71	0.36
	6	-0.33	0.19	0.76	-0.93	0.28
	Quite a Bit	-0.77*	0.19	0.00	-1.37	-0.17
	8	0.23	0.49	1.00	-1.31	1.78
	A Great Deal	-1.27	0.49	0.20	-2.81	0.28
4	Nothing	0.87*	0.20	0.00	0.23	1.51
	2	0.40	0.21	0.62	-0.27	1.07
	Very Little	0.21	0.20	0.98	-0.43	0.84
	Some Influence	0.03	0.21	1.00	-0.64	0.70
	6	-0.12	0.23	1.00	-0.85	0.61

Table 31 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.56	0.23	0.27	-1.23	0.16
	8	0.44	0.51	1.00	-1.16	2.04
	A Great Deal	-1.06	0.51	0.49	-2.66	0.54
	Nothing	0.84*	0.17	0.00	0.30	1.38
	2	0.37	0.18	0.52	-0.20	0.95
	Very Little	0.18	0.17	0.98	-0.36	0.71
	4	-0.03	0.21	1.00	-0.70	0.64
	6	-0.15	0.21	1.00	-0.80	0.50
6	Quite a Bit	-0.59	0.20	0.09	-1.23	0.05
	8	0.41	0.50	1.00	-1.15	0.20
	A Great Deal	-1.09	0.50	0.41	-2.65	0.47
	Nothing	0.99*	0.20	0.00	0.38	1.60
	2	0.52	0.21	0.22	-0.12	1.16
	Very Little	0.33	0.19	0.76	-0.28	0.93
	4	0.12	0.23	1.00	-0.61	0.85
	Some Influence	0.15	0.21	1.00	-0.50	0.80
Quite a Bit	Quite a Bit	-0.44	0.22	0.55	-1.15	0.26
	8	0.56	0.51	0.97	-1.03	2.14
	A Great Deal	-0.94	0.51	0.64	-2.53	0.64
	Nothing	1.43*	0.19	0.00	0.83	2.03
	2	0.96*	0.20	0.00	0.33	1.60
	Very Little	0.77*	0.19	0.00	0.17	1.37
	4	0.56	0.23	0.27	-0.16	1.29
	Some Influence	0.59	0.20	0.09	-0.05	1.23
	6	0.44	0.22	0.55	-0.26	1.15
8	8	1.00	0.50	0.56	-0.58	2.58
	A Great Deal	-0.50	0.50	0.99	-2.08	1.08
	Nothing	0.43	0.49	0.99	-1.11	1.98
	2	-0.04	0.50	1.00	-1.59	1.52
	Very Little	-0.23	0.49	1.00	-1.78	1.31
	4	-0.44	0.51	1.00	-2.04	1.16
	Some Influence	-0.41	0.50	1.00	-1.97	1.15
	6	-0.56	0.51	0.97	-2.14	1.03
	Quite a Bit	-1.00	0.50	0.56	-2.58	0.58

Table 31 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	A Great Deal	-1.00	0.68	0.40	-3.63	0.63
	Nothing	1.93*	0.49	0.00	0.39	3.48
	2	1.46	0.50	0.08	-0.09	3.02
	Very Little	1.27	0.49	0.20	-0.28	2.81
	4	1.06	0.51	0.49	-0.54	2.66
	Some Influence	1.09	0.50	0.41	-0.47	2.65
	6	0.94	0.51	0.64	-0.64	2.53
	Quite a Bit	0.50	0.50	0.99	-1.08	2.08
	8	1.50	0.68	0.40	-0.63	3.63

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 32.

Tukey Post-Hoc Multiple Correlations for item "Using virtual reality, I can do much more work." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.31	0.17	0.60	-0.87	0.21
	Very Little	-0.47	0.16	0.07	-0.96	0.02
	4	-0.68*	0.21	0.03	-1.32	-0.04
	Some Influence	-0.98*	0.18	0.00	-1.53	-0.43
	6	-0.70*	0.20	0.01	-1.32	-0.08
	Quite a Bit	-1.21*	0.19	0.00	-1.82	-0.60
	8	-2.37*	0.50	0.00	-3.93	-0.80
	A Great Deal	-1.87	0.50	0.07	-3.43	-0.30
2	Nothing	0.33	0.17	0.60	-0.21	0.87
	Very Little	-0.14	0.17	1.00	-0.68	0.40
	4	-0.35	0.22	0.80	-1.03	0.33
	Some Influence	-0.65*	0.19	0.02	-1.25	-0.06
	6	-0.37	0.21	0.70	-1.03	0.29
	Quite a Bit	-0.88*	0.21	0.00	-1.53	-0.23
	8	-2.04*	0.50	0.00	-3.62	-0.46
	A Great Deal	-1.54	0.50	0.06	-3.12	0.04
Very Little	Nothing	0.47	0.16	0.07	-0.02	0.96
	2	0.14	0.17	1.00	-0.40	0.68
	4	-0.21	0.20	0.98	-0.85	0.43
	Some Influence	-0.51	0.17	0.08	-1.06	0.03
	6	-0.23	0.20	0.96	-0.85	0.38
	Quite a Bit	-0.74*	0.19	0.01	-1.34	-0.14
	8	-1.90*	0.50	0.01	-3.46	-0.33
	A Great Deal	-1.40	0.50	0.12	-2.96	0.17
4	Nothing	0.68*	0.21	0.03	-0.04	1.32
	2	0.35	0.22	0.80	-0.33	1.03
	Very Little	0.21	0.20	0.98	-0.43	0.85
	Some Influence	-0.30	0.22	0.90	-0.99	0.38
	6	-0.02	0.24	1.00	-0.76	0.72
	Quite a Bit	-0.53	0.23	0.37	-1.26	0.20
	8	-1.69*	0.52	0.03	-3.31	-0.07

Table 32 (continued).

	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-1.19	0.52	0.35	-2.81	0.43
	Nothing	0.98*	0.18	0.00	0.43	1.53
	2	0.65*	0.19	0.02	0.06	1.25
	Very Little	0.51	0.17	0.08	-0.03	1.06
	4	0.30	0.22	0.90	-0.38	0.99
	6	0.28	0.21	0.92	-0.38	0.94
	Quite a Bit	-0.23	0.21	0.98	-0.88	0.42
	8	-1.39	0.50	0.14	-2.97	0.20
6	A Great Deal	-0.89	0.50	0.71	-2.47	0.70
	Nothing	0.70*	0.20	0.01	0.08	1.32
	2	0.37	0.21	0.70	-0.29	1.03
	Very Little	0.23	0.20	0.96	-0.38	0.85
	4	0.02	0.24	1.00	-0.72	0.76
	Some Influence	-0.28	0.21	0.92	-0.94	0.38
	Quite a Bit	-0.51	0.23	0.38	-1.22	0.20
	8	-1.67*	0.51	0.04	-3.27	-0.06
Quite a Bit	A Great Deal	-1.17	0.51	0.36	-2.77	0.44
	Nothing	1.21*	0.19	0.00	0.60	1.82
	2	0.88*	0.21	0.00	0.23	1.53
	Very Little	0.74*	0.19	0.01	0.14	1.34
	4	0.53	0.23	0.37	-0.20	1.26
	Some Influence	0.23	0.21	0.98	-0.42	0.88
	6	0.51	0.23	0.38	-0.20	1.22
	8	-1.16	0.51	0.37	-2.76	0.45
8	A Great Deal	-0.66	0.51	0.93	-2.26	0.95
	Nothing	2.37*	0.50	0.00	0.80	3.93
	2	2.04*	0.50	0.00	0.46	3.62
	Very Little	1.90*	0.50	0.01	0.33	3.46
	4	1.69*	0.52	0.03	0.07	3.31
	Some Influence	1.39	0.50	0.14	-0.20	2.97
	6	1.67*	0.51	0.04	0.06	3.27
	Quite a Bit	1.16	0.51	0.37	-0.45	2.76
	A Great Deal	0.50	0.69	1.00	-1.66	2.66
	Nothing	1.87*	0.50	0.01	0.30	3.43

Table 32 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	2	1.54	0.50	0.06	-0.04	3.12
	Very Little	1.40	0.50	0.12	-0.17	2.96
	4	1.19	0.52	0.35	-0.43	2.81
	Some Influence	0.89	0.50	0.71	-0.70	2.47
	6	1.17	0.51	0.36	-0.44	2.77
	Quite a Bit	0.66	0.51	0.93	-0.95	2.26
	8	-0.50	0.69	1.00	-2.66	1.66

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 33.

Tukey Post-Hoc Multiple Correlations for item "I find it easy to use virtual reality to do what I want it to do." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.55*	0.16	0.03	-1.06	-0.04
	Very Little	-0.74*	0.15	0.00	-1.21	-0.28
	4	-0.51	0.20	0.20	-1.14	0.11
	Some Influence	-1.11*	0.16	0.00	-1.62	-0.59
	6	-1.07*	0.19	0.00	-1.65	-0.48
	Quite a Bit	-1.04*	0.18	0.00	-1.61	-0.47
	8	-2.01*	0.47	0.00	-3.50	-0.53
	A Great Deal	-2.01*	0.47	0.00	-3.50	-0.53
2	Nothing	0.55*	0.16	0.03	0.04	1.06
	Very Little	-0.19	0.16	0.96	-0.71	0.32
	4	0.04	0.21	1.00	-0.62	0.70
	Some Influence	-0.56*	0.18	0.05	-1.11	0.00
	6	-0.52	0.20	0.19	-1.14	0.11
	Quite a Bit	-0.49	0.20	0.24	-1.10	0.12
	8	-1.46	0.48	0.06	-0.30	0.00
	A Great Deal	-1.46	0.48	0.06	-2.97	0.00
Very Little	Nothing	0.77*	0.15	0.00	0.28	1.21
	2	0.19	0.16	0.96	-0.32	0.71
	4	0.23	0.20	0.96	-0.39	0.85
	Some Influence	-0.36	0.16	0.40	-0.88	0.15
	6	-0.33	0.19	0.72	-0.91	0.26
	Quite a Bit	-0.30	0.18	0.79	-0.87	0.28
	8	-1.27	0.47	0.16	-2.76	0.22
	A Great Deal	-1.27	0.47	0.16	-2.76	0.22
4	Nothing	0.51	0.20	0.20	-0.11	1.14
	2	-0.04	0.21	1.00	-0.70	0.62
	Very Little	-0.23	0.20	0.96	-0.85	0.39
	Some Influence	-0.59	0.21	0.12	-1.25	0.07
	6	-0.56	0.23	0.27	-1.27	0.16

Table 33 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.53	0.23	0.33	-1.23	0.18
	8	-1.50	0.49	0.06	-3.04	0.04
	A Great Deal	-1.50	0.49	0.06	-3.04	0.04
	Nothing	1.11*	0.16	0.00	0.59	1.62
	2	0.56*	0.18	0.05	0.00	1.11
	Very Little	0.36	0.16	0.40	-0.15	0.88
	4	0.59	0.21	0.12	-0.07	1.25
	6	0.04	0.20	1.00	-0.59	0.66
6	Quite a Bit	0.07	0.20	1.00	-0.55	0.68
	8	-0.91	0.48	0.62	-2.41	0.60
	A Great Deal	-0.91	0.48	0.62	-2.41	0.60
	Nothing	1.07*	0.19	0.00	0.48	1.65
	2	0.52	0.20	0.19	-0.11	1.14
	Very Little	0.33	0.19	0.72	-0.26	0.91
	4	0.56	0.23	0.27	-0.16	1.27
	Some Influence	-0.04	0.20	1.00	-0.66	0.59
Quite a Bit	Quite a Bit	0.03	0.22	1.00	-0.65	0.70
	8	-0.94	0.49	0.59	-2.47	0.58
	A Great Deal	-0.94	0.49	0.59	-2.47	0.58
	Nothing	1.04*	0.18	0.00	0.47	1.61
	2	0.49	0.20	0.24	-0.12	1.10
	Very Little	0.30	0.18	0.79	-0.28	0.87
	4	0.53	0.23	0.33	-0.18	1.23
	Some Influence	-0.07	0.20	1.00	-0.68	0.55
	6	-0.03	0.22	1.00	-0.70	0.65
8	8	-0.97	0.39	0.54	-2.50	0.55
	A Great Deal	-0.97	0.39	0.54	-2.50	0.55
	Nothing	2.01*	0.47	0.00	0.53	3.50
	2	1.46	0.48	0.06	-0.04	2.97
	Very Little	1.27	0.47	0.16	-0.22	2.76
	4	1.50	0.49	0.06	-0.04	3.04
	Some Influence	0.91	0.48	0.62	-0.60	2.41
	6	0.94	0.49	0.59	-0.58	2.47
	Quite a Bit	0.97	0.49	0.54	-0.55	2.50
	A Great Deal	0.00	0.65	1.00	-2.05	2.05

Table 33 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.01*	0.47	0.00	0.53	3.50
	2	1.46	0.48	0.06	-0.04	2.97
	Very Little	1.27	0.47	0.16	-0.22	2.76
	4	1.50	0.49	0.06	-0.04	3.04
	Some Influence	0.91	0.48	0.62	-0.60	2.41
	6	0.94	0.49	0.59	-0.58	2.47
	Quite a Bit	0.97	0.49	0.54	-0.55	2.50
	8	0.00	0.65	1.00	-2.05	2.05

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 34.

Tukey Post-Hoc Multiple Comparison for item "I find it easy to use virtual reality." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.43	0.17	0.24	-0.97	0.11
	Very Little	-0.80*	0.16	0.00	-1.29	-0.30
	4	-0.86*	0.22	0.00	-1.54	-0.18
	Some Influence	-1.16*	0.18	0.00	-1.72	-0.60
	6	-1.03*	0.20	0.00	-1.65	-0.40
	Quite a Bit	-1.10*	0.20	0.00	-1.71	-0.48
	8	-1.36	0.50	0.16	-2.94	0.22
	A Great Deal	-2.36*	0.50	0.00	-3.94	-0.78
2	Nothing	0.43	0.17	0.24	-0.11	0.97
	Very Little	-0.36	0.17	0.47	-0.91	0.18
	4	-0.43	0.23	0.63	-1.14	0.29
	Some Influence	-0.73*	0.19	0.01	-1.33	-0.13
	6	-0.60	0.21	0.11	-1.26	0.06
	Quite a Bit	-0.67*	0.21	0.04	-1.31	-0.02
	8	-0.93	0.51	0.67	-2.53	0.67
	A Great Deal	-1.93*	0.51	0.01	-3.53	-0.33
Very Little	Nothing	0.80*	0.16	0.00	0.30	1.29
	2	0.36	0.17	0.47	-0.18	0.91
	4	-0.06	0.22	1.00	-0.74	0.62
	Some Influence	-0.36	0.18	0.52	-0.92	0.20
	6	-0.23	0.20	0.96	-0.85	0.39
	Quite a Bit	-0.30	0.20	0.83	-0.91	0.31
	8	-0.56	0.50	0.97	-2.15	1.02
	A Great Deal	-1.56	0.50	0.06	-3.15	0.02
4	Nothing	0.86*	0.22	0.00	0.18	1.54
	2	0.43*	0.23	0.63	-0.29	1.14
	Very Little	0.06	0.22	1.00	-0.62	0.74
	Some Influence	-0.30	0.23	0.93	-1.03	0.43
	6	-0.17	0.25	1.00	-0.94	0.61
	Quite a Bit	-0.24	0.25	0.99	-1.01	0.53
	8	-0.50	0.53	0.99	-2.15	1.15

Table 34 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-1.50	0.53	0.11	-3.15	0.15
	Nothing	1.16*	0.18	0.00	0.60	1.72
	2	0.73*	0.19	0.01	0.13	1.33
	Very Little	0.36	0.18	0.52	-0.20	0.92
	4	0.30	0.23	0.93	-0.43	1.03
	6	0.13	0.22	1.00	-0.54	0.81
	Quite a Bit	0.06	0.21	1.00	-0.60	0.73
	8	-0.20	0.51	1.00	-1.80	1.40
6	A Great Deal	-1.20	0.51	0.32	-2.80	0.40
	Nothing	1.03*	0.20	0.00	0.40	1.65
	2	0.60	0.21	0.11	-0.06	1.26
	Very Little	0.23	0.20	0.96	-0.39	0.85
	4	0.17	0.25	1.00	-0.61	0.94
	Some Influence	-0.13	0.22	1.00	-0.81	0.54
	Quite a Bit	-0.07	0.23	1.00	-0.79	0.65
	8	-0.33	0.52	1.00	-1.96	1.29
Quite a Bit	A Great Deal	-1.33	0.52	0.21	-2.96	0.29
	Nothing	1.10*	0.20	0.00	0.48	1.71
	2	0.67*	0.21	0.04	0.02	1.31
	Very Little	0.30	0.20	0.83	-0.31	0.91
	4	0.24	0.25	0.99	-0.53	1.01
	Some Influence	-0.06	0.21	1.00	-0.73	0.60
	6	0.07	0.23	1.00	-0.65	0.79
	8	-0.26	0.52	1.00	-1.89	1.36
8	A Great Deal	-1.26	0.52	0.27	-2.89	0.36
	Nothing	1.36	0.50	0.16	-0.22	2.94
	2	0.93	0.51	0.67	-0.67	2.53
	Very Little	0.56	0.50	0.97	-1.02	2.15
	4	0.50	0.53	0.99	-1.15	2.15
	Some Influence	0.20	0.51	1.00	-1.40	1.80
	6	0.33	0.52	1.00	-1.29	1,96
	Quite a Bit	0.26	0.52	1.00	-1.36	1.89
	A Great Deal	-1.00	0.70	0.88	-3.18	1.18
	Nothing	2.36*	0.50	0.00	0.78	3.94
	2	1.93*	0.51	0.01	0.33	3.53

Table 34 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	1.56	0.50	0.06	-0.02	3.15
	4	1.50	0.53	0.11	-0.15	3.15
	Some Influence	1.20	0.51	0.32	-0.40	2.80
	6	1.33	0.52	0.21	-0.29	2.96
	Quite a Bit	1.26	0.52	0.27	-0.36	2.89
	8	1.00	0.70	0.88	-1.18	3.18

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 35.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more in training sessions with my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.29	0.17	0.75	-0.82	0.24
	Very Little	-0.51*	0.16	0.03	-1.00	-0.03
	4	-0.80*	0.20	0.00	-1.43	-0.16
	Some Influence	-1.10*	0.17	0.00	-1.64	-0.56
	6	-1.08*	0.20	0.00	-1.69	-0.47
	Quite a Bit	1.31*	0.19	0.00	-1.91	-0.71
	8	-1.86*	0.50	0.01	-3.42	-0.30
	A Great Deal	-1.86*	0.50	0.01	-3.42	-0.30
2	Nothing	0.29	0.17	0.75	-0.24	0.82
	Very Little	-0.23	0.17	0.92	-0.76	0.31
	4	-0.51	0.21	0.30	-1.18	0.16
	Some Influence	-0.81*	0.18	0.00	-1.39	-0.23
	6	-0.79*	0.21	0.01	-1.44	-0.15
	Quite a Bit	-1.02*	0.20	0.00	-0.17	-0.38
	8	-1.57*	0.50	0.05	-3.14	0.00
	A Great Deal	-1.57*	0.50	0.05	-3.14	0.00
Very Little	Nothing	0.51*	0.16	0.03	0.03	1.00
	2	0.23	0.17	0.92	-0.31	0.76
	4	-0.28	0.23	0.90	-0.92	-0.35
	Some Influence	-0.59*	0.17	0.02	-1.12	-0.05
	6	-0.57	0.20	0.09	-1.18	0.04
	Quite a Bit	-0.79*	0.19	0.00	-1.39	-0.19
	8	-1.35	0.50	0.15	-2.90	0.21
	A Great Deal	-1.35	0.50	0.15	-2.90	0.21
4	Nothing	0.80*	0.20	0.00	0.16	1.43
	2	0.51	0.21	0.30	-0.16	1.18
	Very Little	0.28	0.20	0.90	-0.35	0.92
	Some Influence	-0.30	0.22	0.89	-0.98	0.37
	6	-0.29	0.24	0.95	-1.02	0.45

Table 35 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.51	0.23	0.41	-1.24	0.22
	8	-1.06	0.51	0.50	-2.67	0.55
	A Great Deal	-1.06	0.51	0.50	-2.67	0.55
	Nothing	1.10*	0.17	0.00	0.56	1.64
	2	0.81*	0.18	0.00	0.23	1.39
	Very Little	0.59*	0.17	0.02	0.05	1.12
	4	0.30	0.22	0.89	-0.37	0.98
	6	0.02	0.21	1.00	-0.63	0.67
6	Quite a Bit	-0.21	0.21	0.99	-0.85	0.44
	8	0.76	0.50	0.85	-2.33	0.81
	A Great Deal	-0.76	0.50	0.85	-2.33	0.81
	Nothing	1.08*	0.20	0.00	0.47	1.69
	2	0.79*	0.21	0.01	0.15	1.44
	Very Little	0.57	0.20	0.09	-0.04	1.18
	4	0.29	0.24	0.95	-0.45	1.02
	Some Influence	-0.11	0.21	1.00	-0.67	0.63
Quite a Bit	Quite a Bit	-0.23	0.23	0.99	-0.93	0.48
	8	-0.78	0.51	0.84	-2.38	0.82
	A Great Deal	-0.78	0.51	0.84	-2.38	0.82
	Nothing	1.31*	0.19	0.00	0.71	1.91
	2	1.02*	0.20	0.00	0.38	1.66
	Very Little	0.79*	0.19	0.00	0.19	1.39
	4	0.51	0.23	0.41	-0.22	1.24
	Some Influence	0.21	0.21	0.99	-0.44	0.85
	6	0.23	0.23	0.99	-0.48	0.93
8	8	-0.55	0.51	0.98	-2.15	1.04
	A Great Deal	-0.55	0.51	0.98	-2.15	1.04
	Nothing	1.86*	0.50	0.01	0.30	3.42
	2	1.57*	0.50	0.05	0.00	3.14
	Very Little	1.35	0.50	0.15	-0.21	2.90
	4	1.06	0.51	0.50	-0.55	2.67
	Some Influence	0.76	0.50	0.85	-0.81	2.33
	6	0.78	0.51	0.84	-0.82	2.38
	Quite a Bit	0.55	0.51	0.98	-1.04	2.15
	A Great Deal	0.00	0.68	1.00	-2.15	2.15

Table 35 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.86*	0.50	0.01	0.30	3.42
	2	1.57*	0.50	0.05	0.00	3.14
	Very Little	1.35	0.50	0.15	-0.21	2.90
	4	1.06	0.51	0.50	-0.55	2.67
	Some Influence	0.76	0.50	0.85	-0.81	2.33
	6	0.78	0.51	0.84	-0.82	2.38
	Quite a Bit	0.55	0.51	0.98	-1.04	2.15
	8	0.00	0.68	1.00	-2.15	2.15

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 36.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more to keep in touch with my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.40	0.16	0.25	-0.91	0.11
	Very Little	-0.64*	0.15	0.00	-1.10	-0.18
	4	-1.02*	0.19	0.00	-1.67	-0.45
	Some Influence	-1.21*	0.16	0.00	-1.73	-0.70
	6	-1.10*	0.19	0.00	-1.69	-0.52
	Quite a Bit	-1.49*	0.18	0.00	-2.06	-0.92
	8	-1.44	0.47	0.07	-2.92	0.05
	A Great Deal	-1.94*	0.47	0.00	-3.42	-0.45
2	Nothing	0.40	0.16	0.25	-0.11	0.91
	Very Little	-0.24	0.16	0.86	-0.75	0.27
	4	-0.66*	0.20	0.04	-1.30	-0.02
	Some Influence	-0.81*	0.18	0.00	-1.37	-0.26
	6	-0.70*	0.20	0.01	-1.32	-0.08
	Quite a Bit	-1.09*	0.19	0.00	-1.70	-0.48
	8	-1.04	0.48	0.43	-2.53	0.46
	A Great Deal	-1.54*	0.48	0.04	-3.03	-0.04
Very Little	Nothing	0.64*	0.15	0.00	0.18	1.10
	2	0.24	0.16	0.86	-0.27	0.75
	4	-0.42	0.19	0.43	-1.03	0.19
	Some Influence	-0.57*	0.16	0.02	-1.08	-0.06
	6	-0.46	0.19	0.25	-1.04	0.12
	Quite a Bit	-0.85*	0.18	0.00	-1.42	-0.28
	8	-0.80	0.47	0.76	-2.28	0.69
	A Great Deal	-1.30	0.47	0.14	-2.78	0.19
4	Nothing	1.06*	0.19	0.00	0.45	1.67
	2	0.66*	0.20	0.04	0.02	1.30
	Very Little	0.42	0.19	0.43	-0.19	1.03
	Some Influence	-0.15	0.21	1.00	-0.80	0.49
	6	-0.04	0.22	1.00	-0.74	0.66

Table 36 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.43	0.22	0.59	-1.12	0.27
	8	-0.38	0.49	1.00	-1.91	1.16
	A Great Deal	-0.88	0.49	0.69	-2.41	0.66
	Nothing	1.21*	0.16	0.00	0.70	1.73
	2	0.81*	0.18	0.00	0.26	1.37
	Very Little	0.57*	0.16	0.02	0.06	2.08
	4	0.15	0.21	1.00	-0.49	0.80
	6	0.11	0.20	1.00	-0.51	0.73
6	Quite a Bit	-0.28	0.20	0.89	-0.89	0.34
	8	-0.22	0.48	1.00	-1.72	1.28
	A Great Deal	-0.72	0.48	0.85	-2.22	0.78
	Nothing	1.10*	0.19	0.00	0.52	1.69
	2	0.70*	0.20	0.01	0.08	1.32
	Very Little	0.46	0.19	0.25	-0.12	1.04
	4	0.04	0.22	1.00	-0.66	0.74
	Some Influence	-0.11	0.20	1.00	-0.73	0.51
Quite a Bit	Quite a Bit	-0.39	0.21	0.68	-1.06	0.29
	8	-0.33	0.49	1.00	-1.86	1.19
	A Great Deal	-0.83	0.49	0.74	-2.36	0.69
	Nothing	1.49*	0.18	0.00	0.92	2.06
	2	1.09*	0.19	0.00	0.48	1.70
	Very Little	0.85*	0.18	0.00	0.28	1.42
	4	0.43	0.22	0.59	-0.27	1.12
	Some Influence	0.28	0.20	0.89	-0.34	0.89
	6	0.39	0.21	0.68	-0.29	1.06
8	8	0.05	0.48	1.00	-1.47	1.57
	A Great Deal	-0.45	0.48	0.99	-1.97	1.07
	Nothing	1.44	0.47	0.07	-0.05	2.92
	2	1.04	0.48	0.43	-0.46	2.53
	Very Little	0.80	0.47	0.76	-0.69	2.28
	4	0.38	0.49	1.00	-1.16	1.91
	Some Influence	0.22	0.48	1.00	-1.28	1.72
	6	0.33	0.49	1.00	-1.19	1.86
	Quite a Bit	-0.05	0.48	1.00	-1.57	1.47
	A Great Deal	-0.50	0.65	1.00	-2.54	1.54

Table 36 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.94*	0.47	0.00	0.45	3.42
	2	1.54*	0.48	0.04	0.04	3.03
	Very Little	1.30	0.47	0.14	-0.19	2.78
	4	0.88	0.49	0.69	-0.66	2.41
	Some Influence	0.72	0.48	0.85	-0.78	2.22
	6	0.83	0.49	0.74	-0.69	2.36
	Quite a Bit	0.45	0.48	0.99	-1.07	1.97
	8	0.50	0.65	1.00	-1.54	2.54

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 37.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more to get information out of my students." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.47	0.17	0.14	-1.00	0.07
	Very Little	-0.66*	0.16	0.00	-1.15	-0.17
	4	-0.87*	0.20	0.00	-1.51	-0.23
	Some Influence	-0.84*	0.17	0.00	-1.38	-0.30
	6	-0.99*	0.20	0.00	-1.60	-0.38
	Quite a Bit	-1.43*	0.19	0.00	-2.03	-0.83
	8	-0.43	0.49	0.99	-1.98	1.11
	A Great Deal	-1.93*	0.49	0.00	-3.48	-0.39
2	Nothing	0.47	0.17	0.14	-0.07	1.00
	Very Little	-0.20	0.17	0.96	-0.72	0.33
	4	-0.40	0.21	0.62	1.07	0.27
	Some Influence	-0.37	0.18	0.52	-0.95	0.20
	6	-0.52	0.21	0.22	-1.16	0.12
	Quite a Bit	-0.96*	0.20	0.00	-1.60	-0.33
	8	0.04	0.50	1.00	-1.52	1.59
	A Great Deal	-1.46	0.50	0.08	-3.02	0.09
Very Little	Nothing	0.66*	0.16	0.00	0.17	1.15
	2	0.20	0.17	0.96	-0.33	0.72
	4	-0.21	0.20	0.98	-0.84	0.43
	Some Influence	-0.18	0.17	0.98	-0.71	0.36
	6	-0.33	0.19	0.76	-0.93	0.28
	Quite a Bit	-0.77*	0.19	0.00	-1.37	-0.17
	8	0.23	0.49	1.00	-1.31	1.78
	A Great Deal	-1.27	0.49	0.20	-2.81	0.28
4	Nothing	0.87*	0.20	0.00	0.23	1.51
	2	0.40	0.21	0.62	-0.27	1.07
	Very Little	0.21	0.20	0.98	-0.43	0.84
	Some Influence	0.03	0.21	1.00	-0.64	0.70
	6	-0.12	0.23	1.00	-0.85	0.61

Table 37 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.56	0.23	0.27	-1.23	0.16
	8	0.44	0.51	1.00	-1.16	2.04
	A Great Deal	-1.06	0.51	0.49	-2.66	0.54
	Nothing	0.84*	0.17	0.00	0.30	1.38
	2	0.37	0.18	0.52	-0.20	0.95
	Very Little	0.18	0.17	0.98	-0.36	0.71
	4	-0.03	0.21	1.00	-0.70	0.64
	6	-0.15	0.21	1.00	-0.80	0.50
6	Quite a Bit	-0.59	0.20	0.09	-1.23	0.05
	8	0.41	0.50	1.00	-1.15	0.20
	A Great Deal	-1.09	0.50	0.41	-2.65	0.47
	Nothing	0.99*	0.20	0.00	0.38	1.60
	2	0.52	0.21	0.22	-0.12	1.16
	Very Little	0.33	0.19	0.76	-0.28	0.93
	4	0.12	0.23	1.00	-0.61	0.85
	Some Influence	0.15	0.21	1.00	-0.50	0.80
Quite a Bit	Quite a Bit	-0.44	0.22	0.55	-1.15	0.26
	8	0.56	0.51	0.97	-1.03	2.14
	A Great Deal	-0.94	0.51	0.64	-2.53	0.64
	Nothing	1.43*	0.19	0.00	0.83	2.03
	2	0.96*	0.20	0.00	0.33	1.60
	Very Little	0.77*	0.19	0.00	0.17	1.37
	4	0.56	0.23	0.27	-0.16	1.29
	Some Influence	0.59	0.20	0.09	-0.05	1.23
	6	0.44	0.22	0.55	-0.26	1.15
8	8	1.00	0.50	0.56	-0.58	2.58
	A Great Deal	-0.50	0.50	0.99	-2.08	1.08
	Nothing	0.43	0.49	0.99	-1.11	1.98
	2	-0.04	0.50	1.00	-1.59	1.52
	Very Little	-0.23	0.49	1.00	-1.78	1.31
	4	-0.44	0.51	1.00	-2.04	1.16
	Some Influence	-0.41	0.50	1.00	-1.97	1.15
	6	-0.56	0.51	0.97	-2.14	1.03
	Quite a Bit	-1.00	0.50	0.56	-2.58	0.58
	A Great Deal	-1.00	0.68	0.40	-3.63	0.63

Table 37 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.93*	0.49	0.00	0.39	3.48
	2	1.46	0.50	0.08	-0.09	3.02
	Very Little	1.27	0.49	0.20	-0.28	2.81
	4	1.06	0.51	0.49	-0.54	2.66
	Some Influence	1.09	0.50	0.41	-0.47	2.65
	6	0.94	0.51	0.64	-0.64	2.53
	Quite a Bit	0.50	0.50	0.99	-1.08	2.08
	8	1.50	0.68	0.40	-0.63	3.63

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 38.

Tukey Post-Hoc Multiple Correlations for item "I have the resources necessary to use virtual reality." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.72	0.28	0.21	-1.59	0.16
	Very Little	-1.21*	0.26	0.00	-2.01	-0.40
	4	-1.98*	0.34	0.00	-3.04	-0.93
	Some Influence	-1.92*	0.28	0.00	-2.80	-1.03
	6	-2.14*	0.32	0.00	-3.15	-1.13
	Quite a Bit	-1.41*	0.32	0.00	-2.40	-0.42
	8	-2.36	0.82	0.10	-4.93	0.21
	A Great Deal	-2.36	0.82	0.10	-4.93	0.21
2	Nothing	0.72	0.28	0.21	-0.16	1.59
	Very Little	-0.49	0.28	0.72	-1.37	0.39
	4	-1.27*	0.35	0.01	-2.38	-0.16
	Some Influence	-1.20*	0.31	0.00	-2.16	-0.24
	6	-1.42*	0.34	0.00	-2.49	-0.35
	Quite a Bit	-0.70	0.34	0.50	-1.75	0.36
	8	-1.64	0.83	0.55	-4.24	0.95
	A Great Deal	-1.64	0.83	0.55	-4.24	0.95
Very Little	Nothing	1.21*	0.26	0.00	0.40	2.01
	2	0.49	0.28	0.72	-0.39	1.37
	4	-0.78	0.34	0.33	-1.83	0.27
	Some Influence	-0.71	0.28	0.24	-1.60	0.18
	6	-0.93	0.32	0.10	-1.94	0.08
	Quite a Bit	-0.21	0.32	1.00	-1.20	0.79
	8	-1.15	0.82	0.89	-3.73	1.42
	A Great Deal	-1.15	0.82	0.89	-3.73	1.42
4	Nothing	1.98*	0.34	0.00	0.93	3.04
	2	1.27*	0.35	0.01	0.16	2.38
	Very Little	0.78	0.34	0.33	-0.27	1.83
	Some Influence	0.07	0.36	1.00	-1.05	1.19
	6	-0.15	0.39	1.00	-1.35	1.07
	Quite a Bit	0.57	0.38	0.86	-0.63	1.78
	8	-0.38	0.85	1.00	-3.03	2.28

Table 38 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-0.38	0.85	1.00	-3.03	2.28
	Nothing	1.92*	0.28	0.00	1.03	2.80
	2	1.20*	0.31	0.00	0.24	2.16
	Very Little	0.71	0.28	0.24	-0.18	1.60
	4	-0.07	0.36	1.00	-1.19	1.05
	6	-0.22	0.34	1.00	-1.30	0.86
	Quite a Bit	-0.50	0.34	0.86	-0.56	1.56
	8	-0.44	0.83	1.00	-3.04	2.15
6	A Great Deal	-0.44	0.83	1.00	-3.04	2.15
	Nothing	2.14*	0.32	0.00	1.13	3.15
	2	1.42*	0.34	0.00	0.35	2.49
	Very Little	0.93	0.32	0.10	-0.08	1.94
	4	0.15	0.39	1.00	-1.07	1.37
	Some Influence	0.22	0.34	1.00	-0.86	1.30
	Quite a Bit	0.73	0.37	0.58	-0.44	1.89
	8	-0.22	0.84	1.00	-0.29	2.42
Quite a Bit	A Great Deal	-0.22	0.84	1.00	-2.87	2.42
	Nothing	1.41*	0.32	0.00	0.42	2.40
	2	0.70	0.34	0.50	-0.36	1.75
	Very Little	0.21	0.32	1.00	-0.79	1.20
	4	-0.57	0.38	0.86	-1.78	0.63
	Some Influence	-0.50	0.34	0.86	-1.56	0.56
	6	-0.73	0.37	0.58	-1.89	0.44
	8	-0.95	0.84	0.97	-3.58	1.69
8	A Great Deal	-0.95	0.84	0.97	-3.58	1.69
	Nothing	2.36	0.82	0.10	-0.21	4.93
	2	1.64	0.83	0.55	-0.95	4.24
	Very Little	1.15	0.82	0.89	-1.42	3.73
	4	0.38	0.85	1.00	-2.28	3.03
	Some Influence	0.44	0.83	1.00	-2.15	3.04
	6	0.22	0.84	1.00	-2.42	2.87
	Quite a Bit	0.95	0.84	0.97	-1.69	3.58
	A Great Deal	0.00	1.13	1.00	-3.55	3.55

Table 38 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.36	0.82	0.10	-0.21	4.93
	2	1.64	0.83	0.55	-0.95	4.24
	Very Little	1.15	0.82	0.89	-1.42	3.73
	4	0.38	0.85	1.00	-2.28	3.03
	Some Influence	0.44	0.83	1.00	-2.15	3.04
	6	0.22	0.84	1.00	-2.42	2.87
	Quite a Bit	0.95	0.84	0.97	-1.69	3.58
	8	0.00	1.13	1.00	-3.55	3.55

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 39.

Tukey Post-Hoc Multiple Comparison for item "I have the knowledge necessary to use virtual reality." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.75	0.25	0.07	-1.54	0.03
	Very Little	-1.74*	0.23	0.00	-2.46	-1.02
	4	-1.53*	0.30	0.00	-2.48	-0.59
	Some Influence	-2.27*	0.25	0.00	-3.07	-1.48
	6	-2.39*	0.29	0.00	-3.29	-1.48
	Quite a Bit	-1.93*	0.28	0.00	-2.82	-1.04
	8	-2.72*	0.74	0.01	-5.03	-0.41
	A Great Deal	-3.72*	0.74	0.00	-6.03	-1.41
2	Nothing	0.75	0.25	0.07	-0.03	1.54
	Very Little	-0.99*	0.25	0.00	-1.78	-0.20
	4	-0.78	0.32	0.27	-1.77	0.22
	Some Influence	-1.52*	0.27	0.00	-2.38	-0.66
	6	-1.63*	0.31	0.00	-2.59	-0.67
	Quite a Bit	-1.18*	0.20	0.00	-2.12	-0.23
	8	-1.96	0.74	0.18	-3.29	0.37
	A Great Deal	-2.96*	0.74	0.00	-5.29	-0.63
Very Little	Nothing	1.74*	0.23	0.00	1.02	2.46
	2	0.99*	0.25	0.00	0.20	1.78
	4	0.21	0.30	1.00	-0.73	1.16
	Some Influence	-0.53	0.25	0.49	-1.33	0.27
	6	-0.64	0.29	0.40	-1.55	0.27
	Quite a Bit	-1.85	0.28	1.00	-1.08	0.71
	8	-0.97	0.74	0.92	-3.28	1.33
	A Great Deal	-1.97	0.74	0.16	-4.28	0.33
4	Nothing	1.53*	0.30	0.00	0.59	2.48
	2	0.78	0.32	0.27	-0.22	1.77
	Very Little	-0.21	0.30	1.00	-1.16	0.73
	Some Influence	-0.74	0.32	0.33	-1.75	0.26
	6	-0.85	0.35	0.26	-1.95	0.24
	Quite a Bit	-0.40	0.34	0.96	-1.48	0.68
	8	-1.19	0.76	0.82	-3.58	1.20

Table 39 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-2.19	0.76	0.10	-4.58	0.20
	Nothing	2.27*	0.25	0.00	1.48	3.07
	2	1.52*	0.27	0.00	0.66	2.38
	Very Little	0.53	0.25	0.49	-0.27	1.33
	4	0.74	0.32	0.33	-0.26	1.75
	6	-0.11	0.31	1.00	-1.08	0.86
	Quite a Bit	0.35	0.30	0.97	-0.61	1.30
	8	-0.44	0.74	1.00	-2.78	1.89
6	A Great Deal	-1.44	0.74	0.58	-3.78	0.89
	Nothing	2.39*	0.29	0.00	1.48	3.29
	2	1.63*	0.31	0.00	0.67	2.59
	Very Little	0.64	0.29	0.40	-0.27	1.55
	4	0.85	0.35	0.26	-0.24	1.95
	Some Influence	0.11	0.31	1.00	-0.86	1.08
	Quite a Bit	0.46	0.33	0.91	-0.59	1.50
	8	-0.33	0.76	1.00	-2.71	2.04
Quite a Bit	A Great Deal	-1.33	0.76	0.71	-3.71	1.04
	Nothing	1.93*	0.23	0.00	1.04	2.82
	2	1.18*	0.30	0.00	0.23	2.12
	Very Little	0.19	0.28	1.00	-0.71	1.08
	4	0.40	0.34	0.96	-0.68	1.48
	Some Influence	-0.35	0.30	0.97	-1.30	0.61
	6	-0.46	0.33	0.91	-1.50	0.59
	8	-0.79	0.75	0.98	-3.16	1.58
8	A Great Deal	-1.79	0.75	0.31	-4.16	0.58
	Nothing	2.72*	0.74	0.01	0.41	5.03
	2	1.96	0.74	0.18	-0.37	4.29
	Very Little	0.97	0.74	0.92	-1.33	3.28
	4	1.19	0.76	0.82	-1.20	3.58
	Some Influence	0.44	0.74	1.00	-1.89	2.78
	6	0.33	0.76	1.00	-2.04	2.71
	Quite a Bit	0.79	0.75	0.98	-1.58	3.16
	A Great Deal	-1.00	1.01	0.99	-4.18	2.18
	Nothing	3.72*	0.74	0.00	1.41	6.03
	2	2.96*	0.74	0.00	0.63	5.29

Table 39 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	1.97	0.74	0.16	-0.33	4.28
	4	2.19	0.76	0.10	-0.20	4.58
	Some Influence	1.44	0.74	0.58	-0.89	3.78
	6	1.33	0.76	0.71	-1.09	3.71
	Quite a Bit	1.79	0.75	0.31	-0.58	4.16
	8	1.00	1.01	0.99	-2.18	4.18

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 40.

Tukey Post-Hoc Multiple Comparison for item "Virtual reality is not compatible with other technologies I use." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.13	0.22	1.00	-0.82	0.56
	Very Little	0.18	0.20	0.99	-0.45	0.81
	4	0.22	0.26	1.00	-0.60	1.05
	Some Influence	0.49	0.22	0.40	-0.21	1.19
	6	0.53	0.25	0.48	-0.26	1.32
	Quite a Bit	0.24	0.25	0.99	-0.54	1.02
	8	0.97	0.64	0.85	-1.04	2.99
	A Great Deal	1.47	0.64	0.35	-0.54	3.49
2	Nothing	0.13	0.22	1.00	-0.56	0.82
	Very Little	0.31	0.22	0.89	-0.37	1.00
	4	0.36	0.28	0.93	-0.51	1.23
	Some Influence	0.63	0.24	0.18	-0.12	1.37
	6	0.66	0.27	0.25	-0.18	1.50
	Quite a Bit	0.37	0.26	0.89	-0.45	1.19
	8	1.11	0.65	0.74	-0.92	3.14
	A Great Deal	1.61	0.65	0.25	-0.42	3.64
Very Little	Nothing	-0.18	0.20	0.99	-0.81	0.45
	2	-0.31	0.22	0.89	-1.00	0.37
	4	0.05	0.26	1.00	-0.78	0.87
	Some Influence	0.31	0.22	0.89	-0.38	1.01
	6	0.35	0.25	0.90	-0.44	1.14
	Quite a Bit	0.06	0.25	1.00	-0.72	0.83
	8	0.80	0.64	0.95	-1.22	2.81
	A Great Deal	1.30	0.64	0.53	-0.72	3.31
4	Nothing	-0.22	0.26	1.00	-1.05	0.60
	2	-0.36	0.28	0.93	-1.23	0.51
	Very Little	-0.05	0.26	1.00	-0.87	0.78
	Some Influence	0.27	0.28	0.99	-0.61	1.14
	6	0.31	0.30	0.99	-0.65	1.26

Table 40 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	0.01	0.30	1.00	-0.93	0.95
	8	0.75	0.66	0.97	-1.33	2.83
	A Great Deal	1.25	0.66	0.62	-0.83	3.33
	Nothing	-0.49	0.22	0.40	-1.19	0.21
	2	-0.63	0.24	0.18	-1.37	0.12
	Very Little	-0.31	0.22	0.89	-1.01	0.38
	4	-0.27	0.28	0.99	-1.14	0.61
	6	0.04	0.27	1.00	-0.81	0.88
6	Quite a Bit	-0.26	0.26	0.99	-1.09	0.57
	8	0.48	0.65	1.00	-1.55	2.51
	A Great Deal	0.98	0.65	0.85	-1.05	3.01
	Nothing	-0.53	0.25	0.48	-1.32	0.26
	2	-0.66	0.27	0.25	-1.50	0.18
	Very Little	-0.35	0.25	0.90	-1.14	0.44
	4	-0.31	0.30	0.99	-1.26	0.65
	Some Influence	-0.04	0.27	1.00	-0.88	0.81
Quite a Bit	Quite a Bit	-0.29	0.29	0.99	-1.20	0.62
	8	0.44	0.66	1.00	-1.62	2.51
	A Great Deal	0.94	0.66	0.88	-1.12	3.01
	Nothing	-0.24	0.25	0.99	-1.02	0.54
	2	-0.37	0.26	0.89	-1.19	0.45
	Very Little	-0.06	0.25	1.00	-0.83	0.72
	4	-0.01	0.30	1.00	-0.95	0.93
	Some Influence	0.26	0.26	0.99	-0.57	1.09
	6	0.29	0.29	0.99	-0.62	1.20
8	8	0.74	0.66	0.97	-1.32	2.80
	A Great Deal	1.24	0.66	0.63	-0.82	3.30
	Nothing	-0.97	0.64	0.85	-2.99	1.04
	2	-1.02	0.65	0.74	-3.14	0.92
	Very Little	-0.80	0.64	0.95	-2.81	1.22
	4	0.75	0.66	0.97	-2.83	1.33
	Some Influence	-0.48	0.65	1.00	-2.51	1.55
	6	-0.44	0.66	1.00	-2.51	1.62
	Quite a Bit	-0.74	0.66	0.97	-2.80	1.32
	A Great Deal	0.50	0.88	1.00	-2.27	3.27

Table 40 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	-1.47	0.64	0.35	-3.49	0.54
	2	-1.61	0.65	0.25	-3.64	0.42
	Very Little	-1.30	0.64	0.53	-3.31	0.72
	4	-1.25	0.66	0.62	-3.33	0.83
	Some Influence	-0.98	0.65	0.85	-3.01	1.05
	6	-0.94	0.66	0.88	-3.01	1.12
	Quite a Bit	-1.24	0.66	0.63	-3.30	0.82
	8	-0.50	0.88	1.00	-3.27	2.27

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 41.

Tukey Post-Hoc Multiple Comparison for item "A specific person (or group) is available for assistance with system difficulties." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.78	0.29	0.18	-1.70	0.15
	Very Little	-0.49	0.27	0.67	-1.33	0.36
	4	-1.59*	0.35	0.00	-2.69	-0.49
	Some Influence	-1.40*	0.30	0.00	-2.33	-0.47
	6	-1.53*	0.34	0.00	-2.59	-0.47
	Quite a Bit	-1.40*	0.33	0.00	-2.43	-0.36
	8	-2.53	0.85	0.08	-5.20	0.15
	A Great Deal	-0.53	0.85	1.00	-3.20	2.15
2	Nothing	0.78	0.29	0.18	-0.15	1.70
	Very Little	0.29	0.29	0.99	-0.62	1.20
	4	-0.81	0.37	0.40	-1.97	0.34
	Some Influence	-0.62	0.32	0.57	-1.61	0.37
	6	-0.75	0.35	0.47	-1.86	0.36
	Quite a Bit	-0.62	0.35	0.70	-1.71	0.48
	8	-1.75	0.86	0.52	-4.44	0.94
	A Great Deal	0.25	0.86	1.00	-2.44	2.94
Very Little	Nothing	0.49	0.27	0.67	-0.36	1.33
	2	-0.29	0.29	0.99	-1.20	0.62
	4	-1.10*	0.35	0.05	-2.19	-0.01
	Some Influence	-0.91	0.29	0.06	-1.83	0.01
	6	-1.04	0.33	0.06	-2.09	0.01
	Quite a Bit	-0.91	0.33	0.13	-1.94	0.12
	8	-2.04	0.85	0.29	-4.71	0.63
	A Great Deal	-0.04	0.85	1.00	-2.71	2.63
4	Nothing	1.59*	0.35	0.00	-0.49	2.69
	2	0.81	0.37	0.40	-0.34	1.97
	Very Little	1.10*	0.35	0.05	0.01	2.19
	Some Influence	0.19	0.37	1.00	-0.97	1.35
	6	0.06	0.40	1.00	-1.20	1.33

Table 41 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	0.19	0.40	1.00	-1.06	1.44
	8	-0.94	0.88	0.98	-3.70	1.82
	A Great Deal	1.06	0.88	0.95	-1.70	3.82
	Nothing	1.40*	0.30	0.00	0.47	2.33
	2	0.62	0.32	0.57	-0.37	1.61
	Very Little	0.91	0.29	0.06	-0.01	1.83
	4	-0.19	0.37	1.00	-1.35	0.97
	6	-0.13	0.36	1.00	-1.25	0.99
6	Quite a Bit	0.00	0.35	1.00	-1.10	1.10
	8	-1.13	0.86	0.93	-3.83	1.57
	A Great Deal	0.87	0.86	0.98	-1.83	3.57
	Nothing	1.53	0.34	0.00	0.47	2.59
	2	0.75	0.35	0.47	-0.36	1.86
	Very Little	1.04	0.33	0.06	-0.01	2.09
	4	-0.06	0.40	1.00	-1.33	1.20
	Some Influence	0.13	0.36	1.00	-0.99	1.25
Quite a Bit	Quite a Bit	0.13	0.39	1.00	-1.08	1.34
	8	-1.00	0.87	0.97	-3.74	1.74
	A Great Deal	1.00	0.87	0.97	-1.74	3.74
	Nothing	1.40*	0.33	0.00	0.36	2.43
	2	0.62	0.35	0.70	-0.48	1.71
	Very Little	0.91	0.33	0.13	-0.12	1.94
	4	-0.19	0.40	1.00	-1.44	1.06
	Some Influence	0.00	0.35	1.00	-1.10	1.10
	6	-0.13	0.39	1.00	-1.34	1.08
8	8	-1.13	0.87	0.93	-3.87	1.61
	A Great Deal	0.87	0.87	0.99	-1.87	3.61
	Nothing	2.53	0.85	0.08	-0.15	5.20
	2	1.75	0.86	0.52	-0.94	4.44
	Very Little	2.04	0.85	0.29	-0.63	4.71
	4	0.94	0.88	0.98	-1.82	3.70
	Some Influence	1.13	0.86	0.93	-1.57	3.83
	6	1.00	0.87	0.97	-1.74	3.74
	Quite a Bit	1.13	0.87	0.93	-1.61	3.87
	A Great Deal	2.00	1.17	0.74	-1.68	5.68

Table 41 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	0.53	0.85	1.00	-2.15	3.20
	2	-0.25	0.86	1.00	-2.94	2.44
	Very Little	0.04	0.85	1.00	-2.63	2.71
	4	-1.06	0.88	0.95	-3.82	1.70
	Some Influence	-0.87	0.86	0.98	-3.57	1.83
	6	-1.00	0.87	0.97	-3.74	1.74
	Quite a Bit	-0.87	0.87	0.99	-3.61	1.87
	8	-2.00	1.17	0.74	-5.68	1.68

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 42.

Tukey Post-Hoc Multiple Comparison for item "People who are influential in my field think I should use virtual reality in my teaching." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.34	0.16	0.43	-0.84	-0.15
	Very Little	-0.50*	0.15	0.02	-0.96	-0.04
	4	-0.72*	0.19	0.01	-1.31	-0.12
	Some Influence	-0.90*	0.16	0.00	-1.40	-0.40
	6	-0.90*	0.18	0.00	-1.47	-0.33
	Quite a Bit	-1.29*	0.18	0.00	-1.85	-0.73
	8	-0.34	0.46	1.00	-1.79	1.10
	A Great Deal	-0.84	0.46	0.66	-2.29	0.60
2	Nothing	0.34	0.16	0.43	-0.15	0.84
	Very Little	-0.16	0.16	0.99	-0.65	0.34
	4	-0.38	0.20	0.62	-1.00	0.25
	Some Influence	-0.56*	0.17	0.04	-1.09	-0.02
	6	-0.56	0.19	0.10	-1.16	0.05
	Quite a Bit	-0.95*	0.19	0.00	-1.54	-0.36
	8	0.00	0.46	1.00	-1.46	1.46
	A Great Deal	-0.50	0.46	0.98	-1.96	0.96
Very Little	Nothing	0.50*	0.15	0.02	0.04	0.96
	2	0.16	0.16	0.99	-0.34	0.65
	4	-0.22	0.19	0.97	-0.81	0.38
	Some Influence	-0.40	0.16	0.24	-0.90	0.10
	6	-0.40	0.18	0.42	-0.97	0.17
	Quite a Bit	-0.79*	0.18	0.00	-1.35	-0.23
	8	0.16	0.46	1.00	-1.29	1.60
	A Great Deal	-0.34	0.46	1.00	-1.79	1.10
4	Nothing	0.72*	0.19	0.01	0.12	1.31
	2	0.38	0.20	0.62	-0.25	1.00
	Very Little	0.22	0.19	0.97	-0.38	0.81
	Some Influence	-0.18	0.20	0.99	-0.81	0.45
	6	-0.18	0.22	1.00	-0.86	0.50

Table 42 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.57	0.22	0.17	-1.25	0.10
	8	0.38	0.48	1.00	-1.12	1.87
	A Great Deal	-0.13	0.48	1.00	-1.62	1.37
	Nothing	0.90*	0.16	0.00	0.40	1.40
	2	0.56*	0.17	0.04	0.02	1.09
	Very Little	0.40	0.16	0.24	-0.10	0.90
	4	0.18	0.20	0.99	-0.45	0.81
	6	0.00	0.19	1.00	-0.61	0.61
6	Quite a Bit	-0.39	0.19	0.50	-0.99	0.20
	8	0.56	0.46	0.96	-0.90	2.01
	A Great Deal	0.06	0.46	1.00	-1.40	1.51
	Nothing	0.90*	0.18	0.00	0.33	1.47
	2	0.56	0.19	0.10	-0.05	1.16
	Very Little	0.40	0.18	0.42	-0.17	0.97
	4	0.18	0.22	1.00	-0.50	0.86
	Some Influence	0.00	0.19	1.00	-0.61	0.61
Quite a Bit	Quite a Bit	-0.39	0.21	0.63	-1.05	0.26
	8	0.56	0.47	0.96	-0.93	2.04
	A Great Deal	0.06	0.47	1.00	-1.43	1.54
	Nothing	1.29*	0.18	0.00	0.73	1.85
	2	0.95*	0.19	0.00	0.36	1.54
	Very Little	0.79*	0.18	0.00	0.23	1.35
	4	0.57	0.22	0.17	-0.10	1.25
	Some Influence	0.39	0.19	0.50	-0.20	0.99
	6	0.39	0.21	0.63	-0.26	1.05
8	8	0.95	0.47	0.54	-0.53	2.43
	A Great Deal	0.45	0.47	0.99	-1.03	1.93
	Nothing	0.34	0.46	1.00	-1.10	1.79
	2	0.00	0.46	1.00	-1.46	1.46
	Very Little	-0.16	0.46	1.00	-1.60	1.29
	4	-0.38	0.48	1.00	-1.87	1.12
	Some Influence	-0.56	0.46	0.96	-2.01	0.90
	6	-0.56	0.47	0.96	-2.04	0.93
	Quite a Bit	-0.95	0.47	0.54	-2.43	0.53
	A Great Deal	-0.50	0.63	1.00	-2.49	1.49

Table 42 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	0.84	0.46	0.66	-0.60	2.29
	2	0.50	0.46	0.98	-0.96	1.96
	Very Little	0.34	0.46	1.00	-1.10	1.79
	4	0.13	0.48	1.00	-1.37	1.62
	Some Influence	-0.06	0.46	1.00	-1.51	1.40
	6	-0.06	0.47	1.00	-1.54	1.43
	Quite a Bit	-0.45	0.47	0.99	-1.93	1.03
	8	0.50	0.63	1.00	-1.49	2.49

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 43.

Tukey Post-Hoc Multiple Comparison for item "People who I work with think I should use virtual reality in my teaching." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.32	0.16	0.54	-0.83	0.18
	Very Little	-0.49*	0.15	0.03	-0.95	-0.03
	4	-0.86*	0.19	0.00	-1.46	-0.25
	Some Influence	-0.80*	0.16	0.00	-1.31	-0.29
	6	-0.97*	0.19	0.00	-1.55	-0.39
	Quite a Bit	-1.25*	0.18	0.00	-1.82	-0.68
	8	-0.86	0.47	0.66	-2.33	0.62
	A Great Deal	-0.86	0.47	0.66	-2.33	0.62
2	Nothing	0.32	0.16	0.54	-0.18	0.83
	Very Little	-0.16	0.16	0.98	-0.67	0.34
	4	-0.54	0.20	0.18	-1.17	0.10
	Some Influence	-0.48	0.18	0.14	-1.03	0.07
	6	-0.65*	0.20	0.03	-1.26	-0.03
	Quite a Bit	-0.93v	0.19	0.00	-1.54	-0.33
	8	-0.54	0.47	0.97	-2.03	0.95
	A Great Deal	-0.54	0.47	0.97	-2.03	0.95
Very Little	Nothing	0.49*	0.15	0.03	0.03	0.95
	2	0.16	0.16	0.98	-0.34	0.67
	4	-0.37	0.19	0.59	-0.98	0.23
	Some Influence	-0.32	0.16	0.58	-0.83	0.19
	6	-0.48	0.19	0.19	-1.06	0.10
	Quite a Bit	-0.77*	0.18	0.00	-1.34	-0.20
	8	-0.37	0.47	1.00	-1.85	1.10
	A Great Deal	-0.37	0.47	1.00	-1.85	1.10
4	Nothing	0.86*	0.19	0.00	0.25	1.46
	2	0.54	0.20	0.18	-0.10	1.17
	Very Little	0.37	0.19	0.59	-0.23	0.98
	Some Influence	0.06	0.20	1.00	-0.59	0.70
	6	-0.11	0.22	1.00	-0.81	0.59

Table 43 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.40	0.22	0.69	-1.09	0.30
	8	0.00	0.49	1.00	-1.53	1.53
	A Great Deal	0.00	0.49	1.00	-1.53	1.53
	Nothing	0.80*	0.16	0.00	0.29	1.31
	2	0.48	0.18	0.14	-0.07	1.03
	Very Little	0.32	0.16	0.58	-0.19	0.83
	4	-0.06	0.20	1.00	-0.70	0.59
	6	-0.17	0.20	1.00	-0.79	0.45
6	Quite a Bit	-0.45	0.19	0.34	-1.06	0.16
	8	-0.06	0.48	1.00	-1.55	1.44
	A Great Deal	-0.06	0.48	1.00	-1.55	1.44
	Nothing	0.97*	0.19	0.00	0.39	1.55
	2	0.65*	0.20	0.03	0.03	1.26
	Very Little	0.48	0.19	0.19	-0.10	1.06
	4	0.11	0.22	1.00	-0.59	0.81
	Some Influence	0.17	0.20	1.00	-0.45	0.79
Quite a Bit	Quite a Bit	-0.28	0.21	0.92	-0.95	0.39
	8	0.11	0.48	1.00	-1.41	1.63
	A Great Deal	0.11	0.48	1.00	-1.41	1.63
	Nothing	1.25*	0.18	0.00	0.68	1.82
	2	0.93*	0.19	0.00	0.33	1.54
	Very Little	0.77*	0.18	0.00	0.20	1.34
	4	0.40	0.22	0.69	-0.30	1.09
	Some Influence	0.45	0.19	0.34	-0.16	1.06
	6	0.28	0.21	0.92	-0.39	0.95
8	8	0.40	0.48	1.00	-1.12	1.91
	A Great Deal	0.40	0.48	1.00	-1.12	1.91
	Nothing	0.86	0.47	0.66	-0.62	2.33
	2	0.54	0.47	0.97	-0.95	2.03
	Very Little	0.37	0.47	1.00	-1.10	1.85
	4	0.00	0.49	1.00	-1.53	1.53
	Some Influence	0.06	0.48	1.00	-1.44	1.55
	6	-0.11	0.48	1.00	-1.63	1.41
	Quite a Bit	-0.40	0.48	1.00	-1.91	1.12
	A Great Deal	0.00	0.65	1.00	-0.20	2.03

Table 43 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	0.86	0.47	0.66	-0.62	2.33
	2	0.54	0.47	0.97	-0.95	2.03
	Very Little	0.37	0.47	1.00	-1.10	1.85
	4	0.00	0.49	1.00	-1.53	1.53
	Some Influence	0.06	0.48	1.00	-1.44	1.55
	6	-0.22	0.48	1.00	-1.63	1.41
	Quite a Bit	-0.40	0.48	1.00	-1.91	1.12
	8	0.00	0.65	1.00	-2.03	2.03

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 44.

Tukey Post-Hoc Multiple Comparison for item "My department faculty think I should use virtual reality in my teaching." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.29	0.14	0.53	-0.75	0.16
	Very Little	-0.56*	0.13	0.00	-0.98	-0.15
	4	-0.84*	0.18	0.00	-1.39	-0.28
	Some Influence	-0.99*	0.15	0.00	-1.45	-0.53
	6	-0.94*	0.17	0.00	-1.46	-0.41
	Quite a Bit	-1.44*	0.16	0.00	-1.95	-0.92
	8	-0.94	0.43	0.40	-2.26	0.39
	A Great Deal	-0.94	0.42	0.40	-2.26	0.39
2	Nothing	0.29	0.14	0.53	-0.16	0.75
	Very Little	-0.27	0.14	0.63	-0.72	0.18
	4	-0.54	0.19	0.09	-1.13	0.04
	Some Influence	-0.70*	0.16	0.00	-1.19	-0.20
	6	-0.64*	0.18	0.01	-1.20	-0.09
	Quite a Bit	-1.14*	0.17	0.00	-1.69	-0.60
	8	-0.64	0.43	0.85	-1.98	0.70
	A Great Deal	-0.64	0.43	0.85	-1.98	0.70
Very Little	Nothing	0.56*	0.13	0.00	0.15	0.98
	2	0.27	0.14	0.63	-0.18	0.72
	4	-0.27	0.18	0.84	-0.83	0.28
	Some Influence	-0.43	0.15	0.09	-0.89	0.03
	6	-0.37	0.17	0.39	-0.89	0.15
	Quite a Bit	-0.87*	0.16	0.00	-1.38	-0.36
	8	-0.37	0.42	0.99	-1.70	0.96
	A Great Deal	-0.37	0.42	0.99	-1.70	0.96
4	Nothing	0.84*	0.18	0.00	0.28	1.39
	2	0.54	0.19	0.09	-0.04	1.13
	Very Little	0.27	0.18	0.84	-0.28	0.83
	Some Influence	-0.16	0.19	1.00	-0.74	0.43
	6	-0.10	0.20	1.00	-0.74	0.54

Table 44 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.60	0.20	0.08	-1.23	0.03
	8	-0.10	0.44	1.00	-1.48	1.28
	A Great Deal	-0.10	0.44	1.00	-1.48	1.28
	Nothing	0.99*	0.15	0.00	0.53	1.45
	2	0.70*	0.16	0.00	0.20	1.19
	Very Little	0.43	0.15	0.09	-0.03	0.89
	4	0.16	0.19	1.00	-0.43	0.74
	6	0.06	0.18	1.00	-0.50	0.61
6	Quite a Bit	-0.44	0.18	0.22	-0.99	0.10
	8	0.06	0.43	1.00	-1.29	1.40
	A Great Deal	0.06	0.43	1.00	-1.29	1.40
	Nothing	0.94*	0.17	0.00	0.41	1.46
	2	0.64*	0.18	0.01	0.09	1.20
	Very Little	0.37	0.17	0.39	-0.15	0.89
	4	0.10	0.20	1.00	-0.54	0.74
	Some Influence	-0.06	0.18	1.00	-0.61	0.50
Quite a Bit	Quite a Bit	-0.50	0.19	0.19	-1.10	0.10
	8	0.00	0.43	1.00	-1.36	1.36
	A Great Deal	0.00	0.43	1.00	-1.36	1.36
	Nothing	1.44*	0.16	0.00	0.92	1.95
	2	1.14*	0.17	0.00	0.60	1.69
	Very Little	0.87*	0.17	0.00	0.36	1.38
	4	0.60	0.16	0.08	-0.03	1.23
	Some Influence	0.44	0.20	0.22	-0.10	0.99
	6	0.50	0.19	0.19	-0.10	1.10
8	8	0.50	0.43	0.97	-0.86	1.86
	A Great Deal	0.50	0.43	0.97	-0.86	1.86
	Nothing	0.94	0.42	0.40	-0.39	2.26
	2	0.64	0.43	0.85	-0.70	1.98
	Very Little	0.37	0.42	0.99	-0.96	1.70
	4	0.10	0.44	1.00	-1.28	1.48
	Some Influence	-0.06	0.43	1.00	-1.40	1.29
	6	0.00	0.43	1.00	-1.36	1.36
	Quite a Bit	-0.50	0.43	0.97	-1.86	0.86
	A Great Deal	0.00	0.58	1.00	-1.83	1.83

Table 44 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	0.94	0.42	0.40	-0.39	2.26
	2	0.64	0.43	0.85	-0.70	1.98
	Very Little	0.37	0.42	0.99	0.96	1.70
	4	1.00	0.44	1.00	-1.28	1.48
	Some Influence	-0.06	0.43	1.00	-1.40	1.29
	6	0.00	0.43	1.00	-1.36	1.36
	Quite a Bit	-0.50	0.43	0.97	-1.86	0.86
	8	0.00	0.58	1.00	-1.83	1.83

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 45.

Tukey Post-Hoc Multiple Correlations for item "My department head thinks I should use virtual reality in my teaching." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.52*	0.16	0.04	-1.02	-0.02
	Very Little	-0.55*	0.15	0.01	-1.01	-0.09
	4	-0.91*	0.20	0.00	-1.53	-0.30
	Some Influence	-0.82*	0.16	0.00	-1.32	-0.31
	6	-1.06*	0.18	0.00	-1.63	-0.48
	Quite a Bit	-1.45*	0.18	0.00	-2.01	-0.88
	8	-1.45*	0.47	0.05	-2.91	0.01
	A Great Deal	-1.45*	0.47	0.05	-2.91	0.01
2	Nothing	0.52*	0.16	0.04	0.02	1.02
	Very Little	-0.03	0.16	1.00	-0.54	0.47
	4	-0.40	0.21	0.60	-1.04	0.25
	Some Influence	-0.30	0.17	0.73	-0.84	0.24
	6	-0.54	0.19	0.13	-1.15	0.07
	Quite a Bit	-0.93*	0.19	0.00	-1.53	-0.33
	8	-0.93	0.47	0.56	-2.40	0.54
	A Great Deal	-0.93	0.47	0.56	-2.40	0.54
Very Little	Nothing	0.55*	0.15	0.01	0.09	1.01
	2	0.03	0.16	1.00	-0.47	0.54
	4	-0.36	0.20	0.65	-0.98	0.25
	Some Influence	-0.27	0.16	0.78	-0.77	0.24
	6	-0.51	0.18	0.14	-1.08	0.07
	Quite a Bit	-0.90*	0.18	0.00	-1.46	-0.33
	8	-0.90	0.47	0.60	-2.36	0.57
	A Great Deal	-0.90	0.47	0.60	-2.36	0.57
4	Nothing	0.91*	0.20	0.00	0.30	1.53
	2	0.40	0.21	0.60	-0.25	1.04
	Very Little	0.36	0.20	0.65	-0.25	0.98
	Some Influence	0.10	0.21	1.00	-0.55	0.74
	6	-0.14	0.22	1.00	-0.85	0.56

Table 45 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.53	0.22	0.29	-1.23	0.16
	8	-0.53	0.48	0.97	-2.05	0.98
	A Great Deal	-0.53	0.48	0.97	-2.05	0.98
	Nothing	0.82*	0.16	0.00	0.31	1.32
	2	0.30	0.17	0.73	-0.24	0.84
	Very Little	0.27	0.16	0.78	-0.24	0.77
	4	-0.10	0.21	1.00	-0.74	0.55
	6	-0.24	0.20	0.95	-0.85	0.37
6	Quite a Bit	-0.63*	0.19	0.03	-1.23	-0.03
	8	-0.63	0.47	0.92	-2.10	0.85
	A Great Deal	-0.63	0.47	0.92	-2.10	0.85
	Nothing	1.06*	0.18	0.00	0.48	1.63
	2	0.54	0.19	0.13	-0.07	1.15
	Very Little	0.51	0.18	0.14	-0.07	1.08
	4	0.14	0.22	1.00	0.56	0.85
	Some Influence	0.24	0.20	0.95	-0.37	0.85
Quite a Bit	Quite a Bit	-0.39	0.21	0.65	-1.05	0.27
	8	-0.39	0.48	1.00	-1.89	1.11
	A Great Deal	-0.39	0.48	1.00	-1.89	1.11
	Nothing	1.45*	0.18	0.00	0.88	2.01
	2	0.93*	0.19	0.00	0.33	1.53
	Very Little	0.90*	0.18	0.00	0.33	1.23
	4	0.53	0.22	0.29	-0.16	1.23
	Some Influence	0.63*	0.19	0.03	0.03	1.05
	6	0.39	0.21	0.65	-0.27	1.50
8	8	0.00	0.48	1.00	-1.50	1.50
	A Great Deal	0.00	0.48	1.00	-1.50	2.91
	Nothing	1.45	0.47	0.05	-0.01	2.40
	2	0.93	0.47	0.56	-0.54	2.36
	Very Little	0.90	0.47	0.60	-0.57	2.05
	4	0.53	0.48	0.97	-0.98	2.10
	Some Influence	0.63	0.47	0.92	-0.85	1.89
	6	0.39	0.48	1.00	-1.11	1.50
	Quite a Bit	0.00	0.47	1.00	-1.50	2.01
	A Great Deal	0.00	0.64	1.00	-2.01	2.91

Table 45 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.45*	0.47	0.05	-0.01	2.40
	2	0.93	0.47	0.56	-0.54	2.36
	Very Little	0.90	0.47	0.60	-0.57	2.05
	4	0.53	0.48	0.97	-0.98	2.05
	Some Influence	0.63	0.47	0.92	-0.85	2.10
	6	0.39	0.48	1.00	-1.11	1.89
	Quite a Bit	0.00	0.48	1.00	-1.50	1.50
	8	0.00	0.64	1.00	-2.01	2.01

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 46.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality to store teaching materials." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.42	0.16	0.22	-0.93	0.10
	Very Little	-0.83*	0.15	0.00	-1.30	-0.36
	4	-1.18*	0.20	0.00	-1.79	-0.56
	Some Influence	-1.08*	0.17	0.00	-1.60	-0.56
	6	-1.32*	0.11	0.00	-1.91	-0.73
	Quite a Bit	-1.75*	0.19	0.00	-2.33	-1.17
	8	-1.49*	0.49	0.05	-2.99	0.01
	A Great Deal	-0.49	0.48	0.98	-1.99	1.01
2	Nothing	0.42	0.16	0.22	-0.10	0.93
	Very Little	-0.41	0.16	0.23	-0.93	0.10
	4	-0.76*	0.21	0.01	-1.41	-0.11
	Some Influence	-0.66*	0.18	0.01	-1.22	-0.11
	6	-0.91*	0.20	0.00	-1.53	-0.28
	Quite a Bit	-1.34*	0.20	0.00	-1.95	-0.72
	8	-1.07	0.48	0.40	-2.59	0.44
	A Great Deal	-0.07	0.48	1.00	-1.59	1.44
Very Little	Nothing	0.83*	0.15	0.00	0.36	1.30
	2	0.41	0.16	0.23	-0.10	0.93
	4	-0.35	0.20	0.71	-0.96	0.27
	Some Influence	-0.25	0.17	0.85	-0.77	0.27
	6	-0.49	0.19	0.19	-1.08	0.10
	Quite a Bit	-0.92*	0.19	0.00	-1.50	-0.34
	8	-0.66	0.48	0.91	-2.16	0.84
	A Great Deal	0.34	0.48	1.00	-1.16	1.84
4	Nothing	1.18*	0.20	0.00	0.56	1.79
	2	0.76*	0.21	0.01	0.11	1.41
	Very Little	0.35	0.20	0.71	-0.27	0.96
	Some Influence	0.10	0.21	1.00	-0.56	0.75
	6	-0.01	0.23	1.00	-0.86	0.57
	Quite a Bit	-0.58	0.22	0.21	-1.28	0.13
	8	-0.31	0.50	1.00	-1.87	1.24

Table 46 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	0.69	0.50	0.90	-0.87	2.24
	Nothing	1.08*	0.17	0.00	0.56	1.60
	2	0.66*	0.18	0.01	0.11	1.22
	Very Little	0.25	0.17	0.85	-0.27	0.77
	4	-0.10	0.21	1.00	-0.75	0.56
	6	-0.24	0.20	0.96	-0.87	0.39
	Quite a Bit	-0.67*	0.20	0.02	-1.29	-0.05
	8	-0.41	0.48	1.00	-1.92	1.11
6	A Great Deal	0.59	0.48	0.95	-0.92	2.11
	Nothing	1.32*	0.19	0.00	0.73	1.91
	2	0.91*	0.20	0.00	0.28	1.53
	Very Little	0.49	0.19	0.19	-0.10	1.08
	4	0.15	0.23	1.00	-0.57	0.86
	Some Influence	0.24	0.20	0.96	-0.39	0.87
	Quite a Bit	-0.43	0.22	0.56	-1.11	0.25
	8	-0.17	0.49	1.00	-1.71	1.38
Quite a Bit	A Great Deal	0.83	0.49	0.75	-0.71	2.38
	Nothing	1.75*	0.19	0.00	1.17	2.33
	2	1.34*	0.20	0.00	0.72	1.95
	Very Little	0.92*	0.19	0.00	0.34	1.50
	4	0.58	0.22	0.21	-0.13	1.28
	Some Influence	0.67*	0.20	0.02	0.05	1.29
	6	0.43	0.22	0.56	-0.25	1.11
	8	0.26	0.49	1.00	-1.28	1.80
8	A Great Deal	1.26	0.49	0.20	-0.28	2.80
	Nothing	1.49*	0.48	0.05	-0.01	2.99
	2	1.07	0.48	0.40	-0.44	2.59
	Very Little	0.66	0.48	0.91	-0.84	2.16
	4	0.31	0.50	1.00	-1.24	1.87
	Some Influence	0.41	0.48	1.00	-1.11	1.92
	6	0.17	0.48	1.00	-1.38	1.71
	Quite a Bit	-0.26	0.49	1.00	-1.80	1.28
	A Great Deal	1.00	0.66	0.85	-1.07	3.07
	Nothing	0.49	0.48	0.98	-1.04	1.99
	2	0.07	0.48	1.00	-1.44	1.59

Table 46 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	-0.34	0.48	1.00	-1.84	1.16
	4	-0.69	0.50	0.90	-2.24	0.87
	Some Influence	-0.59	0.48	0.95	-2.11	0.92
	6	-0.83	0.49	0.75	-2.38	0.71
	Quite a Bit	-1.26	0.49	0.20	-2.80	0.28
	8	-1.00	0.66	0.85	-3.07	1.07

*Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; * = Significant at p < .05.*

Table 47.

Tukey Post-Hoc Multiple Correlations for item "Using virtual reality makes it easier to do my work" and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.12	0.21	1.00	-0.77	0.53
	Very Little	-0.32	0.18	0.71	-0.89	0.25
	4	-0.64*	0.19	0.02	-1.21	-0.05
	Some Influence	-1.02*	0.16	0.00	-1.53	-0.51
	6	-0.86*	0.22	0.01	-1.55	-0.16
	Quite a Bit	-1.40*	0.19	0.00	-1.99	-0.80
	8	-0.69	0.42	0.77	-1.99	0.62
	A Great Deal	-2.36*	0.50	0.00	-3.93	-0.78
2	Nothing	0.12	0.21	1.00	-0.53	0.77
	Very Little	-0.20	0.21	0.99	-0.87	0.47
	4	-0.52	0.22	0.30	-1.19	0.16
	Some Influence	-0.90*	0.20	0.00	-1.52	-0.28
	6	-0.74	0.25	0.08	-1.51	0.04
	Quite a Bit	-1.28*	0.22	0.00	-1.97	-0.59
	8	-0.57	0.43	0.92	-1.92	0.78
	A Great Deal	-2.24*	0.51	0.00	-3.85	-0.62
Very Little	Nothing	0.32	0.18	0.71	-0.25	0.89
	2	0.20	0.21	0.99	-0.47	0.87
	4	-0.32	0.19	0.77	-0.92	0.28
	Some Influence	-0.70*	0.17	0.00	-1.24	-0.17
	6	-0.54	0.23	0.31	-1.25	0.17
	Quite a Bit	-1.08*	0.20	0.00	-1.69	-0.47
	8	-0.37	0.42	0.99	-1.68	0.94
	A Great Deal	-2.04*	0.50	0.00	-3.62	-0.46
4	Nothing	0.64*	0.19	0.02	0.05	1.21
	2	0.52	0.22	0.30	-0.16	1.19
	Very Little	0.32	0.19	0.77	-0.28	0.92
	Some Influence	-0.39	0.17	0.39	-0.93	0.16
	6	-0.22	0.23	0.99	-0.94	0.50

Table 47 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.76*	0.20	0.01	-1.39	-0.14
	8	-0.05	0.42	1.00	-1.37	1.27
	A Great Deal	-1.72*	0.51	0.02	-3.31	-0.13
	Nothing	1.02*	0.16	0.00	0.51	1.53
	2	0.90*	0.20	0.00	0.28	1.52
	Very Little	0.70*	0.17	0.00	0.17	1.24
	4	0.39	0.17	0.39	-0.16	0.93
	6	0.17	0.21	1.00	-0.50	0.83
6	Quite a Bit	-0.38	0.18	0.47	-0.94	0.18
	8	0.33	0.41	1.00	-0.96	1.62
	A Great Deal	-1.33	0.50	0.16	-2.90	0.23
	Nothing	0.86*	0.22	0.01	0.16	1.55
	2	0.74	0.25	0.08	-0.04	1.51
	Very Little	0.54	0.23	0.31	-0.17	1.25
	4	0.22	0.23	0.99	-0.50	0.94
	Some Influence	-0.17	0.21	1.00	-0.83	0.50
Quite a Bit	Quite a Bit	-0.54	0.23	0.33	-1.28	0.19
	8	0.17	0.44	1.00	-1.21	1.54
	A Great Deal	-1.50	0.52	0.10	-3.13	0.13
	Nothing	1.40*	0.19	0.00	0.80	1.99
	2	1.28*	0.22	0.00	0.59	1.97
	Very Little	1.08*	0.20	0.00	0.47	1.69
	4	0.76*	0.20	0.01	0.14	1.39
	Some Influence	0.38	0.18	0.47	-0.18	0.94
	6	0.54	0.23	0.33	-0.19	1.28
8	8	0.71	0.42	0.76	-0.61	2.03
	A Great Deal	-0.96	0.51	0.62	-2.55	0.63
	Nothing	0.69	0.42	0.77	-0.62	1.99
	2	0.57	0.43	0.92	-0.78	1.92
	Very Little	0.37	0.42	0.99	-0.94	1.68
	4	0.05	0.42	1.00	-1.27	1.37
	Some Influence	-0.33	0.41	1.00	-1.62	0.96
	6	-0.17	0.44	1.00	-1.54	1.21
	Quite a Bit	-0.71	0.42	0.76	-2.03	0.61
	A Great Deal	-1.67	0.63	0.17	-3.64	0.30

Table 47 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.36*	0.50	0.00	0.78	3.93
	2	2.36*	0.51	0.00	0.62	3.85
	Very Little	2.04*	0.50	0.00	-0.46	3.62
	4	1.72*	0.51	0.02	-0.13	3.31
	Some Influence	1.33	0.50	0.16	-0.23	2.90
	6	1.50	0.52	0.10	-0.13	3.13
	Quite a Bit	0.96	0.51	0.62	-0.63	2.55
	8	1.67	0.63	0.17	-0.30	3.64

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 48.

Tukey Post-Hoc Multiple Comparison for item "Using virtual reality, I can do more work." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.12	0.20	1.00	-0.75	0.50
	Very Little	-0.44	0.18	0.25	-0.99	0.12
	4	-0.63*	0.18	0.02	-1.19	-0.07
	Some Influence	-0.85*	0.16	0.00	-1.35	-0.35
	6	-0.61	0.22	0.11	-1.29	0.06
	Quite a Bit	-1.44*	0.19	0.00	-2.02	-0.86
	8	-0.40	0.40	0.99	-1.67	0.87
	A Great Deal	-2.40*	0.49	0.00	-3.93	-0.87
2	Nothing	0.12	0.20	1.00	-0.50	0.75
	Very Little	-0.32	0.20	0.83	-0.95	0.32
	4	-0.51	0.20	0.24	-1.15	0.13
	Some Influence	-0.73*	0.19	0.00	-1.32	-0.14
	6	-0.49	0.24	0.50	-1.24	0.25
	Quite a Bit	-1.32*	0.21	0.00	-1.98	-0.66
	8	-0.28	0.42	1.00	-1.58	1.03
	A Great Deal	-2.28*	0.50	0.00	-3.84	-0.72
Very Little	Nothing	0.44	0.18	0.25	-0.12	0.99
	2	0.32	0.20	0.83	-0.32	0.95
	4	-0.19	0.18	0.98	-0.77	0.38
	Some Influence	-0.42	0.16	0.23	-0.93	0.10
	6	-0.18	0.22	1.00	-0.87	0.51
	Quite a Bit	-1.01*	0.19	0.00	-1.60	-0.41
	8	0.04	0.41	1.00	-1.24	1.31
	A Great Deal	-1.96*	0.49	0.00	-3.50	-0.43
4	Nothing	0.63*	0.18	0.02	0.07	1.19
	2	0.51	0.20	0.24	-0.13	1.15
	Very Little	0.19	0.18	0.98	-0.38	0.77
	Some Influence	-0.22	0.17	0.92	-0.74	0.30
	6	0.02	0.22	1.00	-0.68	0.71

Table 48 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.81*	0.19	0.00	-1.41	-0.21
	8	0.23	0.41	1.00	-1.05	1.51
	A Great Deal	-1.77*	0.49	0.01	-3.30	-0.23
	Nothing	0.85*	0.16	0.00	0.35	1.35
	2	0.73*	0.19	0.00	0.14	1.32
	Very Little	0.42	0.16	0.23	-0.10	0.93
	4	0.22	0.17	0.92	-0.30	0.74
	6	0.24	0.21	0.96	-0.41	0.88
6	Quite a Bit	-0.59	0.17	0.02	-1.13	-0.05
	8	0.45	0.40	0.97	-0.80	1.70
	A Great Deal	-1.55*	0.48	0.04	-3.06	-0.03
	Nothing	0.61	0.22	0.11	-0.06	1.29
	2	0.49	0.24	0.50	-0.25	1.24
	Very Little	0.18	0.22	1.00	-0.51	0.87
	4	-0.02	0.22	1.00	-0.71	0.68
	Some Influence	-0.24	0.21	0.96	-0.88	0.41
Quite a Bit	Quite a Bit	-0.83*	0.23	0.01	-1.54	-0.12
	8	0.21	0.42	1.00	-1.12	1.55
	A Great Deal	-1.79*	0.50	0.01	-3.37	-0.20
	Nothing	1.44*	0.19	0.00	0.86	2.02
	2	1.32*	0.21	0.00	0.66	1.98
	Very Little	1.01*	0.19	0.00	0.41	1.60
	4	0.81*	0.19	0.00	0.21	1.41
	Some Influence	0.59*	0.17	0.02	0.05	1.13
	6	0.83*	0.23	0.01	0.12	1.54
8	8	1.04	0.41	0.22	-0.24	2.33
	A Great Deal	-0.96	0.49	0.58	-2.50	0.59
	Nothing	0.40	0.40	0.99	-0.87	1.67
	2	0.28	0.42	1.00	-1.03	1.58
	Very Little	-0.04	0.41	1.00	-1.31	1.24
	4	-0.23	0.41	1.00	-1.51	1.05
	Some Influence	-0.45	0.40	0.97	-1.70	0.80
	6	-0.21	0.42	1.00	-1.55	1.12
	Quite a Bit	-1.04	0.41	0.22	-2.33	0.24
	A Great Deal	-2.00*	0.61	0.03	-3.91	-0.09

Table 48 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.40*	0.49	0.00	0.87	3.93
	2	2.28*	0.50	0.00	0.72	3.84
	Very Little	1.96*	0.49	0.00	0.43	3.50
	4	1.77*	0.49	0.01	0.23	3.50
	Some Influence	1.55*	0.48	0.04	0.03	3.06
	6	1.79*	0.50	0.01	0.20	3.37
	Quite a Bit	0.96	0.49	0.58	-0.59	2.50
	8	2.00*	0.61	0.03	0.09	3.91

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 49.

Tukey Post-Hoc Multiple Correlations for item "I find it easy to use virtual reality to do what I want to do." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.26	0.20	0.92	-0.87	0.35
	Very Little	-0.45	0.17	0.20	-0.99	0.10
	4	-0.75*	0.18	0.00	-1.30	-0.20
	Some Influence	-1.00*	0.16	0.00	-1.48	-0.51
	6	-0.95*	0.22	0.00	-1.63	-0.26
	Quite a Bit	-1.18*	0.18	0.00	-1.75	-0.61
	8	-0.48	0.40	0.95	-1.73	0.76
	A Great Deal	-1.98*	0.48	0.00	-3.49	-0.48
2	Nothing	0.26	0.20	0.92	-0.35	-0.87
	Very Little	-0.19	0.20	0.99	-0.81	0.44
	4	-0.49	0.20	0.27	-1.12	0.14
	Some Influence	-0.73*	0.18	0.00	-1.31	-0.16
	6	-0.68	0.24	0.11	-1.43	0.07
	Quite a Bit	-0.92*	0.21	0.00	-1.57	-0.27
	8	-0.22	0.41	1.00	-1.51	1.06
	A Great Deal	-1.72*	0.49	0.02	-3.26	-0.19
Very Little	Nothing	0.45	0.17	0.20	-0.10	0.99
	2	0.19	0.20	0.99	-0.44	0.81
	4	-0.31	0.18	0.75	-0.87	0.26
	Some Influence	-0.55*	0.16	0.02	-1.05	-0.04
	6	-0.50	0.22	0.38	-1.19	0.20
	Quite a Bit	-0.73*	0.19	0.00	-1.32	-0.15
	8	-0.04	0.40	1.00	-1.29	1.22
	A Great Deal	-1.54*	0.48	0.04	-3.05	-0.03
4	Nothing	0.75*	0.18	0.00	-0.20	1.30
	2	0.49	0.20	0.27	-0.14	1.12
	Very Little	0.31	0.18	0.75	-0.26	0.87
	Some Influence	-0.24	0.16	0.86	-0.75	0.27
	6	-0.19	0.22	1.00	-0.89	0.51

Table 49 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.43	0.19	0.37	-1.02	0.16
	8	0.27	0.40	1.00	-0.99	1.53
	A Great Deal	-1.23	0.48	0.21	-2.74	0.28
	Nothing	1.00*	0.16	0.00	0.51	1.48
	2	0.73*	0.18	0.00	0.16	1.31
	Very Little	0.55*	0.16	0.02	0.04	1.05
	4	0.24	0.16	0.86	-0.27	0.75
	6	0.05	0.21	1.00	-0.60	0.70
6	Quite a Bit	-0.18	0.17	0.98	-0.73	0.35
	8	0.51	0.39	0.93	-0.73	1.74
	A Great Deal	-0.99	0.48	0.49	-2.48	0.50
	Nothing	0.95*	0.22	0.00	0.26	1.63
	2	0.68	0.24	0.11	-0.07	1.43
	Very Little	0.50	0.22	0.38	-0.20	1.19
	4	0.19	0.22	1.00	-0.51	0.89
	Some Influence	-0.05	0.21	1.00	-0.70	0.60
Quite a Bit	Quite a Bit	-0.23	0.23	0.98	-0.95	0.48
	8	0.46	0.42	0.97	-0.86	1.78
	A Great Deal	-1.04	0.50	0.49	-2.60	0.53
	Nothing	1.18*	0.18	0.00	0.61	1.75
	2	0.92*	0.21	0.00	0.27	1.57
	Very Little	0.73*	0.19	0.00	0.15	1.32
	4	0.43	0.19	0.37	-0.16	1.02
	Some Influence	0.18	0.17	0.98	-0.35	0.72
	6	0.23	0.23	0.98	-0.48	0.95
8	8	0.70	0.40	0.73	-0.57	1.96
	A Great Deal	-0.80	0.48	0.77	-2.32	0.72
	Nothing	0.48	0.40	0.95	-0.76	1.73
	2	0.22	0.41	1.00	-1.06	1.51
	Very Little	0.04	0.40	1.00	-1.22	1.29
	4	-0.27	0.40	1.00	-1.53	0.99
	Some Influence	-0.51	0.39	0.93	-1.74	0.72
	6	-0.46	0.42	0.97	-1.78	0.86
	Quite a Bit	-0.70	0.40	0.73	-1.96	0.57
	A Great Deal	-1.50	0.60	0.24	-3.38	0.38

Table 49 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.98*	0.48	0.00	0.48	3.49
	2	1.72*	0.49	0.02	0.19	3.26
	Very Little	1.54*	0.48	0.04	0.03	3.05
	4	1.23	0.48	0.21	-0.28	2.74
	Some Influence	0.99	0.48	0.50	-0.50	2.48
	6	1.04	0.50	0.49	-0.53	2.60
	Quite a Bit	0.80	0.48	0.77	-0.72	2.32
	8	1.50	0.60	0.24	-0.38	3.38

*Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; * = Significant at p < .05.*

Table 50.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more to search for information when preparing my programs." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.61*	0.17	0.02	-1.15	-0.06
	Very Little	-0.77*	0.16	0.00	-1.28	-0.27
	4	-1.33*	0.21	0.00	-1.98	-0.67
	Some Influence	-1.35*	0.18	0.00	-1.90	-0.79
	6	-1.25*	0.20	0.00	-1.88	-0.62
	Quite a Bit	-1.59*	0.20	0.00	-2.21	-0.97
	8	-1.64*	0.51	0.04	-3.24	-0.04
	A Great Deal	-1.14	0.51	0.39	-2.74	0.46
2	Nothing	0.61*	0.17	0.02	0.06	1.15
	Very Little	-0.17	0.18	0.99	-0.72	0.38
	4	-0.72*	0.22	0.03	-1.42	-0.03
	Some Influence	-0.74*	0.19	0.00	-1.34	-0.14
	6	-0.65	0.21	0.07	-1.31	0.02
	Quite a Bit	-0.98*	0.21	0.00	-1.64	-0.33
	8	-1.04	0.52	0.54	-2.65	0.58
	A Great Deal	-0.54	0.52	0.98	-2.15	1.08
Very Little	Nothing	0.77*	0.16	0.00	0.27	1.28
	2	0.17	0.18	0.99	-0.38	0.72
	4	-0.56	0.21	0.17	-1.21	0.10
	Some Influence	-0.57*	0.18	0.04	-1.13	-0.02
	6	-0.48	0.20	0.30	-1.11	0.15
	Quite a Bit	-0.82*	0.20	0.00	-1.44	-0.20
	8	-0.87	0.51	0.75	-2.47	0.73
	A Great Deal	-0.37	0.51	1.00	-1.97	1.23
4	Nothing	1.33*	0.21	0.00	0.67	1.98
	2	0.72*	0.22	0.03	0.03	1.42
	Very Little	0.56	0.21	0.17	-0.10	1.21
	Some Influence	-0.02	0.22	1.00	-0.71	0.68
	6	0.08	0.24	1.00	-0.68	0.84

Table 50 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.26	0.24	0.98	-1.01	0.49
	8	-0.31	0.53	1.00	-1.97	1.34
	A Great Deal	0.19	.52S	1.00	-1.47	1.84
	Nothing	1.35*	0.18	0.00	0.79	1.90
	2	0.74*	0.19	0.00	0.14	1.34
	Very Little	0.57*	0.17	0.04	0.02	1.13
	4	0.02	0.22	1.00	-0.68	0.71
	6	0.09	0.21	1.00	-0.58	0.76
6	Quite a Bit	-0.24	0.21	0.96	-0.91	0.42
	8	-0.30	0.52	1.00	-1.91	1.32
	A Great Deal	0.20	0.52	1.00	-1.41	1.82
	Nothing	1.25*	0.20	0.00	0.62	1.88
	2	0.65	0.21	0.07	-0.02	1.31
	Very Little	0.48	0.20	0.30	-0.15	1.11
	4	-0.08	0.24	1.00	-0.84	0.68
	Some Influence	-0.09	0.21	1.00	-0.76	0.58
Quite a Bit	Quite a Bit	-0.34	0.23	0.88	-1.06	0.39
	8	-0.39	0.52	1.00	-2.04	1.26
	A Great Deal	0.11	0.52	1.00	-1.54	1.76
	Nothing	1.59*	0.20	0.00	0.97	2.21
	2	0.98*	0.21	0.00	0.33	1.64
	Very Little	0.82*	0.20	0.00	0.20	1.44
	4	0.26	0.24	0.98	-0.49	1.01
	Some Influence	0.24	0.21	0.96	-0.42	0.91
	6	0.34	0.23	0.88	-0.39	1.06
8	8	-0.05	0.52	1.00	-1.69	1.59
	A Great Deal	0.45	0.52	1.00	-1.19	2.09
	Nothing	1.64*	0.51	0.04	0.04	3.24
	2	1.04	0.52	0.54	-0.58	2.65
	Very Little	0.87	0.51	0.75	-0.73	2.47
	4	0.31	0.53	1.00	-1.34	1.97
	Some Influence	0.30	0.52	1.00	-1.32	1.91
	6	0.39	0.52	1.00	-1.26	2.04
	Quite a Bit	0.05	0.52	1.00	-1.59	1.69
	A Great Deal	0.50	0.70	1.00	-1.71	2.71

Table 50 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.14	0.51	0.39	-0.46	2.74
	2	0.54	0.52	0.98	-1.08	2.15
	Very Little	0.37	0.51	1.00	-1.23	1.97
	4	-0.19	0.53	1.00	-1.84	1 .47
	Some Influence	-0.20	0.52	1.00	-1.82	1.41
	6	-0.11	0.52	1.00	-1.76	1.54
	Quite a Bit	-0.45	0.52	1.00	-2.09	1.19
	8	-0.50	0.70	1.00	-2.71	1.71

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 51.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality for more my personal tasks." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.42	0.16	0.16	-0.91	0.07
	Very Little	-.95*	0.14	0.00	-1.41	-0.50
	4	-1.12*	0.19	0.00	-1.71	-0.53
	Some Influence	-1.21*	0.16	0.00	-1.71	-0.70
	6	-1.30*	0.18	0.00	-1.86	-0.73
	Quite a Bit	-1.64*	0.18	0.00	-2.19	-1.08
	8	-1.24	0.46	0.15	-2.68	0.19
	A Great Deal	-1.24	0.46	0.15	-2.68	0.19
2	Nothing	0.42	0.16	0.16	-0.07	0.91
	Very Little	-0.53*	0.16	0.02	-1.03	-0.04
	4	-0.70*	0.20	0.02	-1.32	-0.08
	Some Influence	-0.78*	0.17	0.00	-1.32	-0.24
	6	-0.88*	0.19	0.00	-1.48	-0.28
	Quite a Bit	-1.22*	0.19	0.00	-1.81	-0.63
	8	-0.82	0.46	0.70	-2.27	0.63
	A Great Deal	-0.82	0.46	0.70	-2.27	0.63
Very Little	Nothing	0.95*	0.14	0.00	0.50	1.41
	2	0.53*	0.16	0.02	0.04	1.03
	4	-0.16	0.19	0.99	-0.76	0.43
	Some Influence	-0.25	0.16	0.82	-0.76	0.25
	6	-0.35	0.18	0.61	-0.91	0.22
	Quite a Bit	-0.68*	0.18	0.01	-1.24	-0.13
	8	-0.29	0.46	1.00	-1.73	1.15
	A Great Deal	-0.29	0.46	1.00	-1.73	1.15
4	Nothing	1.12*	0.19	0.00	0.53	1.71
	2	0.70*	0.20	0.02	0.08	1.32
	Very Little	0.16	0.19	0.99	-0.43	0.76
	Some Influence	-0.09	0.20	1.00	-0.72	0.54
	6	-0.18	0.22	1.00	-0.86	0.50

Table 51 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.52	0.21	0.28	-1.19	0.15
	8	-0.13	0.47	1.00	-1.61	1.36
	A Great Deal	-0.13	0.47	1.00	-1.61	1.36
	Nothing	1.21*	0.16	0.00	0.70	1.71
	2	0.78*	0.17	0.00	0.24	1.32
	Very Little	0.25	0.16	0.82	-0.25	0.76
	4	0.09	0.20	1.00	-0.54	0.72
	6	-0.09	0.19	1.00	-0.70	0.51
6	Quite a Bit	-0.43	0.19	0.36	-1.03	0.16
	8	-0.04	0.46	1.00	-1.49	1.42
	A Great Deal	-0.04	0.46	1.00	-1.49	1.42
	Nothing	1.30*	0.18	0.00	0.73	1.86
	2	0.88*	0.19	0.00	0.28	1.48
	Very Little	0.35	0.18	0.61	-0.22	0.91
	4	0.18	0.22	1.00	-0.50	0.86
	Some Influence	0.09	0.19	1.00	-0.51	0.70
Quite a Bit	Quite a Bit	-0.34	0.21	0.79	-0.99	0.31
	8	0.06	0.47	1.00	-1.42	1.53
	A Great Deal	0.06	0.47	1.00	-1.42	1.53
	Nothing	1.64*	0.18	0.00	1.08	2.19
	2	1.22*	0.19	0.00	0.63	1.81
	Very Little	0.68*	0.18	0.01	0.13	1.24
	4	0.52	0.21	0.28	-0.15	1.19
	Some Influence	0.43	0.19	0.36	-0.16	1.03
	6	0.34	0.21	0.79	-0.31	0.99
8	8	0.40	0.47	1.00	-1.08	1.87
	A Great Deal	0.40	0.47	1.00	-1.08	1.87
	Nothing	1.24	0.46	0.15	-0.19	2.68
	2	0.82	0.46	0.70	-0.63	2.27
	Very Little	0.29	0.46	1.00	-1.15	1.73
	4	0.13	0.47	1.00	-1.36	1.61
	Some Influence	0.04	0.46	1.00	-1.42	1.49
	6	-0.06	0.47	1.00	-1.53	1.42
	Quite a Bit	-0.40	0.47	1.00	-1.87	1.08
	A Great Deal	0.00	0.63	1.00	-1.98	1.98

Table 51 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.24	0.46	0.15	-0.19	2.68
	2	0.82	0.46	0.70	-0.63	2.27
	Very Little	0.29	0.46	1.00	-1.15	1.73
	4	0.13	0.47	1.00	-1.36	1.61
	Some Influence	0.04	0.46	1.00	-1.42	1.49
	6	-0.06	0.47	1.00	-1.53	1.42
	Quite a Bit	-0.40	0.47	1.00	-1.87	1.08
	8	0.00	0.63	1.00	-1.98	1.98

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 52.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality for enhancing my knowledge." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.74*	0.18	0.00	-1.29	-0.19
	Very Little	-0.96*	0.16	0.00	-1.47	-0.45
	4	-1.43*	0.22	0.00	-2.11	-0.75
	Some Influence	-1.42*	0.18	0.00	-1.97	-0.86
	6	-1.34*	0.20	0.00	-1.98	-0.71
	Quite a Bit	-1.78*	0.20	0.00	-2.40	-1.15
	8	-1.56	0.52	0.07	-3.18	0.05
	A Great Deal	-1.56	0.52	0.07	-3.18	0.05
2	Nothing	0.74*	0.18	0.00	0.19	1.29
	Very Little	-0.22	0.18	0.95	-0.77	0.34
	4	-0.69	0.23	0.07	-1.40	0.03
	Some Influence	-0.67*	0.19	0.02	-1.27	-0.07
	6	-0.60	0.21	0.12	-1.27	0.07
	Quite a Bit	-1.03*	0.21	0.00	-1.69	-0.37
	8	-0.82	0.52	0.81	-2.45	0.81
	A Great Deal	-0.82	0.52	0.81	-2.45	0.81
Very Little	Nothing	0.96*	0.16	0.00	0.45	1.47
	2	0.22	0.18	0.95	-0.34	0.77
	4	-0.47	0.22	0.42	-1.15	0.21
	Some Influence	-0.46	0.18	0.21	-1.02	0.10
	6	-0.38	0.20	0.62	-1.02	0.25
	Quite a Bit	-0.82*	0.20	0.00	-1.44	-0.19
	8	-0.61	0.52	0.96	-2.22	1.01
	A Great Deal	-0.61	0.52	0.96	-2.22	1.01
4	Nothing	1.43*	0.22	0.00	0.75	2.11
	2	0.69	0.23	0.07	-0.03	1.40
	Very Little	0.47	0.22	0.42	-0.21	1.15
	Some Influence	0.02	0.23	1.00	-0.70	0.73
	6	0.09	0.25	1.00	-0.69	0.87
	Quite a Bit	-0.34	0.25	0.90	-1.11	0.43
	8	-0.13	0.53	1.00	-1.81	1.54

Table 52 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-0.13	0.53	1.00	-1.81	1.54
	Nothing	1.42*	0.18	0.00	0.86	1.97
	2	0.67*	0.19	0.02	0.07	1.27
	Very Little	0.46	0.18	0.21	-0.10	1.02
	4	-0.02	0.29	1.00	-0.73	0.70
	6	0.07	0.22	1.00	-0.60	0.75
	Quite a Bit	-0.36	0.21	0.75	-1.03	0.31
	8	-0.15	0.52	1.00	-1.78	1.49
6	A Great Deal	-0.15	0.52	1.00	-1.78	1.49
	Nothing	1.34*	0.20	0.00	0.71	1.98
	2	0.60	0.21	0.12	-0.07	1.27
	Very Little	0.38	0.20	0.62	-0.25	1.02
	4	-0.09	0.25	1.00	-0.87	0.69
	Some Influence	-0.07	0.22	1.00	-0.75	0.60
	Quite a Bit	-0.43	0.23	0.65	-1.17	0.30
	8	-0.22	0.53	1.00	-1.88	1.44
Quite a Bit	A Great Deal	-0.22	0.53	1.00	-1.88	1.44
	Nothing	1.78*	0.20	0.00	1.15	2.40
	2	1.03*	0.21	0.00	0.37	1.69
	Very Little	0.82*	0.20	0.00	0.19	1.44
	4	0.34	0.25	0.90	-0.43	1.11
	Some Influence	0.36	0.21	0.75	-0.31	1.03
	6	0.43	0.23	0.65	-0.30	1.17
	8	0.21	0.53	1.00	-1.45	1.87
8	A Great Deal	0.21	0.53	1.00	-1.45	1.87
	Nothing	1.56	0.52	0.07	-0.05	3.18
	2	0.82	0.52	0.81	-0.81	2.45
	Very Little	0.61	0.52	0.96	-1.01	2.22
	4	0.13	0.53	1.00	-1.54	1.81
	Some Influence	0.15	0.52	1.00	-1.49	1.78
	6	0.22	0.53	1.00	-1.44	1.88
	Quite a Bit	-0.21	0.53	1.00	-1.87	1.45
	A Great Deal	0.00	0.71	1.00	-2.23	2.23
	Nothing	1.56	0.52	0.07	-0.05	3.18
	2	0.82	0.52	0.81	-0.81	2.45

Table 52 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Very Little	0.61	0.52	0.96	-1.01	2.22
	4	0.13	0.53	1.00	-1.54	1.81
	Some Influence	0.15	0.52	1.00	-1.49	1.78
	6	0.22	0.53	1.00	-1.44	1.88
	Quite a Bit	-0.21	0.53	1.00	-1.87	1.45
	8	0.00	0.71	1.00	-2.23	2.23

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 53.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more for personal contact." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.48	0.17	0.10	-1.00	0.05
	Very Little	-1.03*	0.15	0.00	-1.52	-0.55
	4	-1.13	0.20	0.00	-1.76	-0.50
	Some Influence	-1.25*	0.17	0.00	-1.78	-0.72
	6	-1.14*	0.19	0.00	-1.74	-0.53
	Quite a Bit	-1.64*	0.19	0.00	-2.23	-1.05
	8	-1.69*	0.49	0.02	-3.22	-0.16
	A Great Deal	-1.69*	0.49	0.02	-3.22	-0.16
2	Nothing	0.48	0.17	0.10	-0.05	1.00
	Very Little	-0.56*	0.17	0.03	-1.08	-0.03
	4	-0.65	0.21	0.06	-1.31	0.01
	Some Influence	-0.77*	0.18	0.00	-1.34	-0.20
	6	-0.66*	0.20	0.04	-1.30	-0.02
	Quite a Bit	-1.16*	0.20	0.00	-1.79	-0.53
	8	-1.21	0.49	0.26	-2.76	0.33
	A Great Deal	-1.21	0.49	0.26	-2.76	0.33
Very Little	Nothing	1.03*	0.15	0.00	0.55	1.52
	2	0.56*	0.17	0.03	0.03	1.08
	4	-0.10	0.20	1.00	-0.73	0.53
	Some Influence	-0.21	0.17	0.94	-0.75	0.32
	6	-0.10	0.19	1.00	-0.71	0.50
	Quite a Bit	-0.61*	0.19	0.04	-1.20	-0.01
	8	-0.66	0.49	0.92	-2.19	0.88
	A Great Deal	-0.66	0.49	0.92	-2.19	0.88
4	Nothing	1.13*	0.20	0.00	0.50	1.76
	2	0.65	0.21	0.06	-0.01	1.31
	Very Little	0.10	0.20	1.00	-0.53	0.73
	Some Influence	-0.12	0.21	1.00	-0.78	0.55
	6	-0.01	0.23	1.00	-0.73	0.72
	Quite a Bit	-0.51	0.23	0.39	-1.23	0.21
	8	-0.56	0.51	0.97	-2.15	1.02

Table 53 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	A Great Deal	-0.56	0.51	0.97	-2.15	1.02
	Nothing	1.25*	0.17	0.00	0.72	1.78
	2	0.77*	0.18	0.00	0.20	1.34
	Very Little	0.21	0.17	0.94	-0.32	0.75
	4	0.12	0.21	1.00	-0.55	0.78
	6	0.11	0.21	1.00	-0.53	0.75
	Quite a Bit	-0.39	0.20	0.58	-1.02	0.24
	8	-0.44	0.49	0.99	-1.99	1.10
6	A Great Deal	-0.44	0.49	0.99	-1.99	1.10
	Nothing	1.14*	0.19	0.00	0.53	1.74
	2	0.66*	0.20	0.04	0.02	1.30
	Very Little	0.10	0.19	1.00	-0.50	0.71
	4	0.01	0.23	1.00	-0.72	0.73
	Some Influence	-0.11	0.21	1.00	-0.75	0.53
	Quite a Bit	-0.50	0.22	0.37	-1.20	0.19
	8	-0.56	0.50	0.97	-2.13	1.02
Quite a Bit	A Great Deal	-0.56	0.50	0.97	-2.13	1.02
	Nothing	1.64*	0.19	0.00	1.05	2.23
	2	1.16*	0.20	0.00	0.53	1.79
	Very Little	0.61*	0.19	0.04	0.01	1.20
	4	0.51	0.23	0.39	-0.21	1.23
	Some Influence	0.39	0.20	0.58	-0.24	1.02
	6	0.50	0.22	0.37	-0.19	1.20
	8	-0.05	0.50	1.00	-1.62	1.52
8	A Great Deal	-0.05	0.50	1.00	-1.62	1.52
	Nothing	1.69*	0.49	0.02	0.16	3.22
	2	1.21	0.49	0.26	-0.33	2.76
	Very Little	0.66	0.49	0.92	-0.88	2.19
	4	0.56	0.51	0.97	-1.02	2.15

Table 53 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Some Influence	0.44	0.49	0.99	-1.10	1.99
	6	0.56	0.50	0.97	-1.02	2.13
	Quite a Bit	0.05	0.50	1.00	-1.52	1.62
	A Great Deal	0.00	0.67	1.00	-2.11	2.11
	Nothing	1.69*	0.49	0.02	0.16	3.22
	2	1.21	0.49	0.26	-0.33	2.76
	Very Little	0.66*	0.49	0.02	-0.88	2.19
	4	0.56	0.51	0.97	-1.02	2.15
	Some Influence	0.44	0.49	0.99	-1.10	1.99
	6	0.56	0.50	0.97	-1.02	2.13
	Quite a Bit	0.05	0.50	1.00	-1.52	1.62
	8	0.00	0.67	1.00	-2.11	2.11

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 54.

Tukey Post-Hoc Multiple Comparison for item "I intend to use virtual reality more in the future in all of my work." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.59*	0.17	0.02	-1.12	-0.06
	Very Little	-0.90*	0.15	0.00	-1.38	-0.42
	4	-0.97*	0.20	0.00	-1.60	-0.33
	Some Influence	-1.22*	0.17	0.00	-1.75	-0.69
	6	-1.26*	0.19	0.00	-1.86	-0.65
	Quite a Bit	-1.75*	0.19	0.00	-2.34	-1.15
	8	-1.09	0.49	0.40	-2.63	0.45
	A Great Deal	-2.09*	0.49	0.00	-3.63	-0.55
2	Nothing	0.59*	0.17	0.02	0.06	1.12
	Very Little	-0.31	0.17	0.66	-0.84	0.22
	4	-0.38	0.21	0.71	-1.04	0.29
	Some Influence	-0.63*	0.18	0.02	-1.20	-0.06
	6	-0.67*	0.21	0.04	-1.31	-0.02
	Quite a Bit	-1.16*	0.20	0.00	-1.79	-0.52
	8	-0.50	0.50	0.99	-2.06	1.06
	A Great Deal	-1.50	0.50	0.07	-3.06	0.06
Very Little	Nothing	0.89*	0.15	0.00	0.42	1.38
	2	0.31	0.17	0.66	-0.22	0.84
	4	-0.07	0.20	1.00	-0.70	0.57
	Some Influence	-0.32	0.17	0.62	-0.86	0.21
	6	-0.36	0.19	0.64	-0.97	0.25
	Quite a Bit	-0.85*	0.19	0.00	-1.45	-0.25
	8	-0.19	0.49	1.00	-1.74	1.35
	A Great Deal	-1.19	0.49	0.28	-2.74	0.35
4	Nothing	0.97*	0.20	0.00	0.33	1.60
	2	0.38	0.21	0.71	-0.29	1.04
	Very Little	0.07	0.20	1.00	-0.57	0.70
	Some Influence	-0.26	0.21	0.96	-0.93	0.42
	6	-0.29	0.23	0.94	-1.02	0.44

Table 54 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	2	0.38	0.21	0.71	-0.29	1.04
	Very Little	0.07	0.20	1.00	-0.57	0.70
	Some Influence	-0.26	0.21	0.96	-0.93	0.42
	6	-0.29	0.23	0.94	-1.02	0.44
	Quite a Bit	-0.78*	0.23	0.02	-1.51	-0.06
	8	-0.13	0.51	1.00	-1.72	1.47
	A Great Deal	-1.13	0.51	0.40	-2.72	0.47
	Nothing	1.22*	0.17	0.00	0.69	1.75
6	2	0.63*	0.18	0.02	0.06	1.20
	Very Little	0.32	0.17	0.62	-0.21	0.86
	4	0.26	0.21	0.96	-0.42	0.93
	6	-0.04	0.21	1.00	-0.69	0.61
	Quite a Bit	-0.53	0.20	0.19	-1.17	0.11
	8	0.13	0.50	1.00	-1.43	1.69
	A Great Deal	-0.87	0.50	0.71	-2.43	0.69
	Nothing	1.26*	0.19	0.00	0.65	1.86
Quite a Bit	2	0.66*	0.21	0.04	0.02	1.31
	Very Little	0.36	0.19	0.64	-0.25	0.97
	4	0.29	0.23	0.94	-0.44	1.02
	Some Influence	0.04	0.21	1.00	-0.61	0.69
	Quite a Bit	-0.49	0.22	0.41	-1.19	0.21
	8	0.17	0.51	1.00	-1.42	1.75
	A Great Deal	-0.83	0.51	0.78	-2.42	0.75
	Nothing	1.75*	0.19	0.00	1.15	2.34
8	2	1.16*	0.20	0.00	0.52	1.79
	Very Little	0.85*	0.19	0.00	0.25	1.45
	4	0.78*	0.23	0.02	0.06	1.51
	Some Influence	0.53	0.20	0.19	-0.11	1.17
	6	0.49	0.22	0.41	-0.21	1.19
	8	0.66	0.50	0.93	-0.93	2.24
	A Great Deal	-0.34	0.50	1.00	-1.93	1.24
	Nothing	1.09	0.49	0.40	-0.45	2.63
	2	0.50	0.50	0.99	-1.06	2.06
	Very Little	0.19	0.49	1.00	-1.35	1.74
	4	0.13	0.51	1.00	-1.47	1.72

Table 54 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
8	Some Influence	-0.13	0.50	1.00	-1.69	1.43
	6	-0.17	0.51	1.00	-1.75	1.42
	Quite a Bit	-0.66	0.50	0.93	-2.24	0.93
	A Great Deal	-1.00	0.68	0.87	-3.13	1.13
	Nothing	2.09*	0.49	0.00	0.55	3.63
A Great Deal	2	1.50	0.50	0.07	-0.06	3.06
	Very Little	1.19	0.49	0.28	-0.35	2.74
	4	1.13	0.51	0.40	-0.47	2.72
	Some Influence	0.87	0.50	0.71	-0.69	2.43
	6	0.83	0.51	0.78	-0.75	2.42
	Quite a Bit	0.34	0.50	1.00	-1.24	1.93
	8	1.00	0.68	0.87	-1.13	3.13

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 55.

Tukey Post-Hoc Multiple Comparison for item "Using virtual reality enables me to accomplish tasks more quickly." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.03	0.20	1.00	-0.65	0.58
	Very Little	-0.20	0.17	0.97	-0.74	0.34
	4	-0.43	0.18	0.26	-0.98	0.12
	Some Influence	-0.71*	0.16	0.00	-1.20	-0.22
	6	-0.84'	0.21	0.00	-1.51	-0.18
	Quite a Bit	-1.11*	0.18	0.00	-1.68	-0.54
	8	-0.20	0.40	1.00	-1.44	1.04
	A Great Deal	-2.20*	0.48	0.00	-3.70	-0.70
2	Nothing	0.03	0.20	1.00	-0.58	0.65
	Very Little	-0.17	0.20	1.00	-0.79	0.46
	4	-0.40	0.20	0.56	-1.03	0.23
	Some Influence	-0.68*	0.18	0.01	-1.25	-0.10
	6	-0.81*	0.23	0.02	-1.54	-0.08
	Quite a Bit	-1.08*	0.21	0.00	-1.73	-0.43
	8	-0.17	0.41	1.00	-1.45	1.11
	A Great Deal	-2.17*	0.49	0.00	-3.70	-0.64
Very Little	Nothing	0.20	0.17	0.97	-0.34	0.74
	2	0.17	0.20	1.00	-0.46	0.79
	4	-0.23	0.18	0.94	-0.80	0.33
	Some Influence	-0.51*	0.16	0.04	-1.02	-0.01
	6	-0.64	0.22	0.08	-1.32	0.03
	Quite a Bit	-0.91*	0.19	0.00	-1.50	-0.33
	8	0.00	0.40	1.00	-1.25	1.25
	A Great Deal	-2.00*	0.48	0.00	-3.51	-0.49
4	Nothing	0.43	0.18	0.26	-0.12	0.98
	2	0.40	0.20	0.56	-0.23	1.03
	Very Little	0.23	0.18	0.94	-0.33	0.80
	Some Influence	-0.28	0.16	0.73	-0.79	0.23
	6	-0.41	0.22	0.61	-1.09	0.27

Table 55 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.68*	0.19	0.01	-1.27	-0.09
	8	0.23	0.40	1.00	-1.02	1.48
	A Great Deal	-1.77*	0.48	0.01	-3.28	-0.26
	Nothing	0.71*	0.16	0.00	0.22	1.20
	2	0.68*	0.18	0.01	0.10	1.25
	Very Little	0.51*	0.16	0.04	0.01	1.02
	4	0.28	0.16	0.73	-0.23	0.79
	6	-0.13	0.20	1.00	-0.76	0.50
6	Quite a Bit	-0.40	0.17	0.30	-0.93	0.13
	8	0.51	0.39	0.93	-0.71	1.74
	A Great Deal	-1.49*	0.47	0.05	-2.97	0.00
	Nothing	0.84*	0.21	0.00	0.18	1.51
	2	0.81*	0.23	0.02	0.08	1.54
	Very Little	0.64	0.22	0.08	-0.03	1.32
	4	0.41	0.22	0.61	-0.27	1.09
	Some Influence	0.13	0.20	1.00	-0.50	0.76
Quite a Bit	Quite a Bit	-0.27	0.22	0.95	-0.97	0.43
	8	0.64	0.42	0.83	-0.66	1.95
	A Great Deal	-1.36	0.49	0.14	-2.91	0.20
	Nothing	1.11*	0.18	0.00	0.54	1.68
	2	1.08*	0.21	0.00	0.43	1.73
	Very Little	0.91*	0.19	0.00	0.33	1.50
	4	0.68*	0.19	0.01	0.09	1.27
	Some Influence	0.40	0.17	0.30	-0.13	0.93
	6	0.27	0.22	0.95	-0.43	0.97
8	8	0.91	0.40	0.36	-0.35	2.17
	A Great Deal	-1.09	0.48	0.38	-2.60	0.43
	Nothing	0.20	0.40	1.00	-1.04	1.44
	2	0.17	0.41	1.00	-1.11	1.45
	Very Little	0.00	0.40	1.00	-1.25	1.25
	4	-0.23	0.40	1.00	-1.48	1.02
	Some Influence	-0.51	0.39	0.93	-1.74	0.71
	6	-0.64	0.42	0.83	-1.95	0.66
	Quite a Bit	-0.91	0.40	0.36	-2.17	0.35
	A Great Deal	-2.00*	0.60	0.03	-3.87	-0.13

Table 55 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	2.20*	0.48	0.00	0.70	3.70
	2	2.17*	0.49	0.00	0.64	3.70
	Very Little	2.00*	0.48	0.00	0.49	3.51
	4	1.77*	0.48	0.01	0.26	3.28
	Some Influence	1.49*	0.47	0.05	0.00	2.97
	6	1.36	0.49	0.14	-0.20	2.91
	Quite a Bit	1.09	0.48	0.38	-0.43	2.60
	8	2.00*	0.60	0.03	0.13	3.87

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 56.

Tukey Post-Hoc Multiple Comparison for item "I find it easy for me to become skillful using virtual reality." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.40	0.19	0.51	-1.00	0.21
	Very Little	-0.49	0.17	0.11	-1.03	0.05
	4	-0.77*	0.18	0.00	-1.32	-0.22
	Some Influence	-1.01*	0.15	0.00	-1.49	-0.53
	6	-1.06*	0.22	0.00	-1.74	-0.39
	Quite a Bit	-1.28*	0.18	0.00	-1.84	-0.72
	8	-0.45	0.39	0.97	-1.69	0.78
	A Great Deal	-1.95*	0.48	0.00	-3.44	-0.46
2	Nothing	0.40	0.19	0.51	-0.21	1.00
	Very Little	-0.09	0.20	1.00	-0.71	0.53
	4	-0.38	0.20	0.64	-1.01	0.26
	Some Influence	-0.61*	0.18	0.03	-1.19	-0.04
	6	-0.67	0.24	0.11	-1.41	0.07
	Quite a Bit	-0.88*	0.21	0.00	-1.52	-0.24
	8	-0.06	0.41	1.00	-1.33	1.22
	A Great Deal	-1.56*	0.49	0.04	-3.08	-0.03
Very Little	Nothing	0.49	0.17	0.11	-0.05	1.03
	2	0.09	0.20	1.00	-0.53	0.71
	4	-0.28	0.18	0.82	-0.85	0.28
	Some Influence	-0.52*	0.16	0.04	-1.02	-0.02
	6	-0.58	0.22	0.18	-1.27	0.11
	Quite a Bit	-0.79*	0.19	0.00	-1.37	-0.21
	8	0.04	0.40	1.00	-1.21	1.28
	A Great Deal	-1.46	0.48	0.06	-2.96	0.03
4	Nothing	0.77*	0.18	0.00	0.22	1.32
	2	0.38	0.20	0.64	-0.26	1.01
	Very Little	0.28	0.18	0.82	-0.28	0.85
	Some Influence	-0.24	0.16	0.87	-0.75	0.28
	6	-0.30	0.22	0.92	-0.99	0.40

Table 56 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	8	0.32	0.40	1.00	-0.93	1.57
	A Great Deal	-1.18	0.48	0.26	-2.68	0.32
	Nothing	1.01*	0.15	0.00	0.53	1.49
	2	0.61*	0.18	0.03	0.04	1.19
	Very Little	0.52*	0.16	0.04	0.02	1.02
	4	0.24	0.16	0.87	-0.28	0.75
	6	-0.06	0.21	1.00	-0.70	0.59
	Quite a Bit	-0.27	0.17	0.81	-0.80	0.26
6	8	0.56	0.39	0.88	-0.66	1.78
	A Great Deal	-0.94	0.47	0.55	-2.42	0.54
	Nothing	1.07*	0.22	0.00	0.39	1.74
	2	0.67	0.24	0.11	-0.07	1.41
	Very Little	0.58	0.22	0.18	-0.11	1.27
	4	0.30	0.22	0.92	-0.40	0.99
	Some Influence	0.06	0.21	1.00	-0.59	0.70
	Quite a Bit	-0.21	0.23	0.99	-0.92	0.50
Quite a Bit	8	0.62	0.42	0.87	-0.69	1.92
	A Great Deal	-0.89	0.49	0.69	-2.44	0.67
	Nothing	1.28*	0.18	0.00	0.72	1.84
	2	0.88*	0.21	0.00	0.24	1.52
	Very Little	0.79*	0.19	0.00	0.21	1.37
	4	0.51	0.19	0.16	-0.08	1.10
	Some Influence	0.27	0.17	0.81	-0.26	0.80
	6	0.21	0.23	0.99	-0.50	0.92
8	8	0.83	0.40	0.50	-0.43	2.08
	A Great Deal	-0.67	0.48	0.90	-2.18	0.83
	Nothing	0.45	0.39	0.97	-0.78	1.69
	2	0.06	0.41	1.00	-1.22	1.33
	Very Little	-0.04	0.40	1.00	-1.28	1.21
	4	-0.32	0.40	1.00	-1.57	0.93
	Some Influence	-0.56	0.39	0.88	-1.78	0.66
	6	-0.62	0.42	0.87	-1.92	0.69
	Quite a Bit	-0.83	0.40	0.50	-2.08	0.43
	A Great Deal	-1.50	0.59	0.23	-3.37	0.37
	Nothing	1.95*	0.48	0.00	0.46	3.44

Table 56 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	2	1.56*	0.49	0.04	0.03	3.08
	Very Little	1.46	0.48	0.06	-0.03	2.96
	4	1.18	0.48	0.26	-0.32	2.68
	Some Influence	0.94	0.47	0.55	-0.54	2.42
	6	0.89	0.49	0.69	-0.67	2.44
	Quite a Bit	0.67	0.48	0.90	-0.83	2.18
	8	1.50	0.59	0.23	-0.37	3.37

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 57.

Tukey Post-Hoc Multiple Comparison for item "I find it easy for me to become skillful using virtual reality." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.23	0.20	0.96	-0.86	0.39
	Very Little	-0.73*	0.17	0.00	-1.27	-0.18
	4	-.77*	0.18	0.00	-1.33	-0.22
	Some Influence	-1.21*	0.16	0.00	-1.70	-0.71
	6	-1.08'	0.22	0.00	-1.76	-0.40
	Quite a Bit	-1.51*	0.18	0.00	-2.08	-0.94
	8	-1.13	0.40	0.11	-2.38	0.11
	A Great Deal	-1.97*	0.48	0.00	-3.47	-0.46
2	Nothing	0.23	0.20	0.96	-0.39	0.86
	Very Little	-0.50	0.20	0.27	-1.13	0.14
	4	-0.54	0.20	0.17	-1.18	0.10
	Some Influence	-0.97*	0.19	0.00	-1.56	-0.38
	6	-0.85	0.24	0.02	-1.61	-0.09
	Quite a Bit	-1.28*	0.21	0.00	-1.94	-0.62
	8	-0.90	0.41	0.41	-2.19	0.39
	A Great Deal	-1.74*	0.49	0.01	-3.27	-0.20
Very Little	Nothing	0.73*	0.17	0.00	0.18	1.27
	2	0.50	0.20	0.27	-0.14	1.13
	4	-0.05	0.18	1.00	-0.61	0.52
	Some Influence	-0.48	0.16	0.08	-0.99	0.03
	6	-0.36	0.22	0.80	-1.05	0.34
	Quite a Bit	-0.78*	0.19	0.00	-1.37	-0.20
	8	-0.41	0.40	0.98	-1.66	0.84
	A Great Deal	-1.24	0.48	0.20	-2.75	0.27
4	Nothing	0.77*	0.18	0.00	0.22	1.33
	2	0.54	0.20	0.17	-0.10	1.18
	Very Little	0.05	0.18	1.00	-0.52	0.61
	Some Influence	-0.43	0.16	0.18	-0.94	0.08
	6	-0.31	0.22	0.90	-1.01	0.39

Table 57 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.74*	0.19	0.00	-1.32	-0.15
	8	-0.36	0.40	0.99	-1.61	0.89
	A Great Deal	-1.19	0.48	0.25	-2.70	0.32
	Nothing	1.21*	0.16	0.00	0.71	1.70
	2	0.97*	0.19	0.00	0.38	1.56
	Very Little	0.48	0.16	0.08	-0.03	0.99
	4	0.43	0.16	0.18	-0.08	0.94
	6	0.12	0.21	1.00	-0.53	0.78
6	Quite a Bit	-0.31	0.17	0.68	-0.84	0.23
	8	0.07	0.39	1.00	-1.16	1.30
	A Great Deal	-0.76	0.47	0.80	-2.25	0.73
	Nothing	1.08*	0.22	0.00	0.40	1.76
	2	0.85*	0.24	0.02	0.09	1.61
	Very Little	0.36	0.22	0.80	-0.34	1.05
	4	0.31	0.22	0.90	-0.39	1.01
	Some Influence	-0.12	0.21	1.00	-0.78	0.53
Quite a Bit	Quite a Bit	-0.43	0.23	0.63	-1.14	0.29
	8	-0.05	0.42	1.00	-1.37	1.27
	A Great Deal	-0.89	0.50	0.70	-2.45	0.68
	Nothing	1.51*	0.18	0.00	0.94	2.08
	2	1.28*	0.21	0.00	0.62	1.94
	Very Little	0.78*	0.19	0.00	0.20	1.37
	4	0.74*	0.19	0.00	0.15	1.32
	Some Influence	0.31	0.17	0.68	-0.23	0.84
	6	0.43	0.23	0.63	-0.29	1.14
8	8	0.38	0.40	0.99	-0.89	1.64
	A Great Deal	1.13	0.40	0.11	-0.11	2.38
	Nothing	0.90	0.41	0.41	-0.39	2.19
	2	0.41	0.40	0.98	-0.84	1.66
	Very Little	0.36	0.40	0.99	-0.89	1.61
	4	-0.07	0.39	1.00	-1.30	1.16
	Some Influence	0.05	0.42	1.00	-1.27	1.37
	6	-0.38	0.40	0.99	-1.64	0.89
	Quite a Bit	-0.83	0.60	0.90	-2.71	1.04
	A Great Deal	1.96*	0.48	0.00	0.46	3.47

Table 57 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.74*	0.49	0.01	0.20	3.27
	2	1.24	0.48	0.20	-0.27	2.75
	Very Little	1.19	0.48	0.25	-0.32	2.70
	4	0.76	0.47	0.80	-0.73	2.25
	Some Influence	0.89	0.50	0.70	-0.68	2.45
	6	0.46	0.48	0.99	-1.06	1.97
	Quite a Bit	0.83	0.60	0.90	-1.04	2.71
	8	1.13	0.40	0.11	-0.11	2.38

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 58.

Tukey Post-Hoc Multiple Comparison for item "Using virtual reality enhances the quality of my work." and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.20	0.20	0.99	-0.82	0.43
	Very Little	-0.26	0.17	0.86	-0.80	0.29
	4	-0.53	0.18	0.07	-1.08	0.02
	Some Influence	-0.76*	0.16	0.00	-1.25	-0.27
	6	-0.47	0.21	0.40	-1.14	0.19
	Quite a Bit	-1.13*	0.18	0.00	-1.70	-0.56
	8	0.08	0.40	1.00	-1.18	1.33
	A Great Deal	-1.76*	0.48	0.01	-3.27	-0.25
2	Nothing	0.20	0.20	0.99	-0.43	0.82
	Very Little	-0.06	0.20	1.00	-0.70	0.58
	4	-0.33	0.21	0.81	-0.97	0.32
	Some Influence	-0.56	0.19	0.09	-1.15	0.04
	6	-0.27	0.24	0.97	-1.02	0.47
	Quite a Bit	-0.93*	0.21	0.00	-1.59	-0.27
	8	0.28	0.41	1.00	-1.02	1.57
	A Great Deal	-1.56*	0.49	0.05	-3.11	-0.01
Very Little	Nothing	0.26	0.17	0.86	-0.29	0.80
	2	0.06	0.20	1.00	-0.58	0.70
	4	-0.27	0.18	0.86	-0.84	0.30
	Some Influence	-0.50	0.16	0.06	-1.01	0.01
	6	-0.21	0.22	0.99	-0.90	0.47
	Quite a Bit	-0.87*	0.19	0.00	-1.46	-0.28
	8	0.33	0.40	1.00	-0.93	1.59
	A Great Deal	-1.50	0.48	0.06	-3.02	0.02
4	Nothing	0.53	0.18	0.07	-0.02	1.08
	2	0.33	0.21	0.81	-0.32	0.97
	Very Little	0.27	0.18	0.86	-0.30	0.84
	Some Influence	-0.23	0.17	0.90	-0.75	0.29
	6	0.06	0.22	1.00	-0.63	0.74

Table 58 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.60*	0.19	0.05	-1.19	-0.01
	8	0.60	0.40	0.86	-0.66	1.87
	A Great Deal	-1.23	0.48	0.22	-2.75	0.29
	Nothing	0.76*	0.16	0.00	0.27	1.25
	2	0.56	0.19	0.09	-0.04	1.15
	Very Little	0.50	0.16	0.06	-0.01	1.01
	4	0.23	0.17	0.90	-0.29	0.75
	6	0.29	0.20	0.90	-0.35	0.93
6	Quite a Bit	-0.37	0.17	0.44	-0.91	0.17
	8	0.83	0.39	0.47	-0.41	2.07
	A Great Deal	-1.00	0.48	0.48	-2.50	0.50
	Nothing	0.47	0.21	0.40	-0.19	1.14
	2	0.27	0.24	0.97	-0.47	1.02
	Very Little	0.21	0.22	0.99	-0.47	0.90
	4	-0.06	0.22	1.00	-0.74	0.63
	Some Influence	-0.29	0.20	0.90	-0.93	0.35
Quite a Bit	Quite a Bit	-0.66	0.22	0.09	-1.36	0.05
	8	0.55	0.42	0.93	-0.77	1.87
	A Great Deal	-1.29	0.50	0.20	-2.85	0.28
	Nothing	1.13*	0.18	0.00	0.56	1.70
	2	0.93*	0.21	0.00	0.27	1.59
	Very Little	0.87*	0.19	0.00	0.28	1.46
	4	0.60•	0.19	0.05	0.01	1.19
	Some Influence	0.37	0.17	0.44	-0.17	0.91
	6	0.66	0.22	0.09	-0.05	1.36
8	8	1.20	0.41	0.08	-0.07	2.48
	A Great Deal	-0.63	0.49	0.93	-2.16	0.90
	Nothing	-0.08	0.40	1.00	-1.33	1.18
	2	-0.28	0.41	1.00	-1.57	1.02
	Very Little	-0.33	0.40	1.00	-1.59	0.93
	4	-0.60	0.40	0.86	-1.87	0.66
	Some Influence	-0.83	0.39	0.47	-2.07	0.41
	6	-0.55	0.42	0.93	-1.87	0.77
	Quite a Bit	-1.20	0.41	0.08	-2.48	0.07
	A Great Deal	-1.83	0.60	0.07	-3.73	0.06

Table 58 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.76*	0.48	0.01	0.25	3.27
	2	1.56*	0.49	0.05	0.01	3.11
	Very Little	1.50	0.48	0.06	-0.02	3.02
	4	1.23	0.48	0.22	-0.29	2.75
	Some Influence	1.00	0.48	0.48	-0.50	2.50
	6	1.29	0.50	0.20	-0.28	2.85
	Quite a Bit	0.63	0.49	0.93	-0.90	2.16
	8	1.83	0.60	0.07	-0.06	3.73

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Table 59.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more for preparing for training materials." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.50	0.16	0.05	-1.00	0.00
	Very Little	0.83*	0.15	0.00	-1.29	-0.37
	4	-1.06*	0.20	0.00	-1.67	-0.45
	Some Influence	-1.09*	0.16	0.00	-1.60	-0.59
	6	-1.13*	0.18	0.00	-1.70	-0.55
	Quite a Bit	-1.73*	0.18	0.00	-2.29	-1.16
	8	-0.96	0.47	0.50	-2.42	0.50
	A Great Deal	-1.46*	0.47	0.05	-2.92	0.00
2	Nothing	0.50*	0.16	0.05	0.00	1.00
	Very Little	-0.33	0.16	0.49	-0.83	0.17
	4	-0.56	0.21	0.14	-1.21	0.08
	Some Influence	-0.59*	0.17	0.02	-1.14	-0.05
	6	-0.63*	0.19	0.04	-1.24	-0.02
	Quite a Bit	-1.23*	0.19	0.00	-1.83	-0.63
	8	-0.46	0.47	0.99	-1.94	1.01
	A Great Deal	-0.96	0.47	0.51	-2.44	0.51
Very Little	Nothing	0.83*	0.15	0.00	0.37	1.29
	2	0.33	0.16	0.49	-0.17	0.83
	4	-0.23	0.20	0.96	-0.85	0.38
	Some Influence	-0.26	0.16	0.79	-0.77	0.25
	6	-0.30	0.18	0.79	-0.87	0.28
	Quite a Bit	-0.90*	0.18	0.00	-1.46	-0.33
	8	-0.12	0.47	1.00	-1.59	1.33
	A Great Deal	-0.63	0.47	0.91	-2.09	0.83
4	Nothing	1.06*	0.20	0.00	0.45	1.67
	2	0.56	0.21	0.14	-0.08	1.21
	Very Little	0.23	0.20	0.96	-0.38	0.85
	Some Influence	-0.03	0.21	1.00	-0.68	0.62
	6	-0.07	0.22	1.00	-0.77	0.64

Table 59 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.66	0.22	0.08	-1.36	0.03
	8	0.10	0.48	1.00	-1.42	1.62
	A Great Deal	-0.40	0.48	1.00	-1.92	1.12
	Nothing	1.09*	0.16	0.00	0.59	1.60
	2	0.59*	0.17	0.02	0.05	1.14
	Very Little	0.26	0.16	0.79	-0.25	0.77
	4	0.03	0.21	1.00	-0.62	0.68
	6	-0.04	0.20	1.00	-0.65	0.58
6	Quite a Bit	-0.63*	0.19	0.03	-1.24	-0.03
	8	0.13	0.47	1.00	-1.35	1.61
	A Great Deal	-0.37	0.47	1.00	-1.85	1.11
	Nothing	1.13*	0.18	0.00	0.55	1.70
	2	0.63*	0.19	0.04	0.02	1.24
	Very Little	0.30	0.18	0.79	-0.28	0.87
	4	0.07	0.22	1.00	-0.64	0.77
	Some Influence	0.04	0.20	1.00	-0.58	0.65
Quite a Bit	Quite a Bit	-0.60	0.21	0.11	-1.26	0.07
	8	1.67	0.48	1.00	-1.33	1.67
	A Great Deal	-0.33	0.48	1.00	-1.83	1.17
	Nothing	1.73*	0.18	0.00	1.16	2.29
	2	1.23*	0.19	0.00	0.63	1.83
	Very Little	0.90*	0.18	0.00	0.33	1.46
	4	0.66	0.22	0.08	-0.03	1.36
	Some Influence	0.63*	0.19	0.03	0.03	1.24
	6	0.60	0.21	0.11	-0.07	1.26
8	8	0.76	0.48	0.80	-0.73	2.26
	A Great Deal	0.26	0.48	1.00	-1.23	1.76
	Nothing	0.96	0.47	0.50	-0.50	2.42
	2	0.46	0.47	0.99	-1.01	1.94
	Very Little	0.13	0.47	1.00	-1.33	1.59
	4	-0.10	0.48	1.00	-1.62	1.42
	Some Influence	-0.13	0.47	1.00	-1.61	1.35
	6	-0.17	0.48	1.00	-1.67	1.33
	Quite a Bit	-0.76	0.48	0.80	-2.26	0.73
	A Great Deal	-0.50	0.64	1.00	-2.51	1.51

Table 59 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.46*	0.47	0.05	0.00	2.92
	2	0.96	0.47	0.51	-0.51	2.44
	Very Little	0.63	0.47	0.91	-0.83	2.09
	4	0.40	0.48	1.00	-1.12	1.92
	Some Influence	0.37	0.47	1.00	-1.11	1.85
	6	0.33	0.48	1.00	-1.17	1.83
	Quite a Bit	-0.26	0.48	1.00	-1.76	1.23
	8	0.50	0.64	1.00	-1.51	2.51

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 60.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more to acquire the knowledge I need to enhance my training." and "How comfortable are you using evaluation strategies for virtual reality use?".

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.41	0.16	0.24	-0.92	0.10
	Very Little	-0.86*	0.15	0.00	-1.32	-0.39
	4	-1.31*	0.20	0.00	-1.94	-0.69
	Some Influence	-1.18*	0.16	0.00	-1.70	-0.66
	6	-1.18*	0.19	0.00	-1.77	-0.59
	Quite a Bit	-1.72*	0.18	0.00	-2.30	-1.15
	8	-1.01	0.48	0.46	-2.51	0.48
	A Great Deal	-1.51*	0.48	0.05	-3.01	-0.02
2	Nothing	0.41	0.16	0.24	-0.10	0.92
	Very Little	-0.45	0.16	0.14	-0.96	0.06
	4	-0.91*	0.21	0.00	-1.57	-0.25
	Some Influence	-.077*	0.18	0.00	-1.33	-0.22
	6	-0.77*	0.20	0.00	-1.40	-0.15
	Quite a Bit	-1.32*	0.20	0.00	-1.93	-0.71
	8	-0.61	0.48	0.94	-2.11	0.90
	A Great Deal	-1.11	0.48	0.34	-2.61	0.40
Very Little	Nothing	0.86*	0.15	0.00	0.39	1.32
	2	0.45	0.16	0.14	-0.06	0.96
	4	-0.46	0.20	0.35	-1.09	0.17
	Some Influence	-0.33	0.17	0.57	-0.84	0.19
	6	-0.33	0.19	0.73	-0.91	0.26
	Quite a Bit	-0.87*	0.18	0.00	-1.45	-0.29
	8	-0.16	0.48	1.00	-1.65	1.34
	A Great Deal	-0.66	0.48	0.90	-2.15	0.84
4	Nothing	1.31*	0.20	0.00	0.69	1.94
	2	0.91*	0.21	0.00	0.25	1.57
	Very Little	0.46	0.20	0.35	-0.17	1.09
	Some Influence	0.13	0.21	1.00	-0.53	0.80
	6	0.13	0.23	1.00	-0.59	0.85

Table 60 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.41	0.23	0.67	-1.12	0.30
	8	0.30	0.49	1.00	-1.25	1.85
	A Great Deal	-0.20	0.49	1.00	-1.75	1.35
	Nothing	1.18*	0.16	0.00	0.66	1.70
	2	0.77*	0.18	0.00	0.22	1.33
	Very Little	0.33	0.17	0.57	-0.19	0.84
	4	-0.13	0.21	1.00	-0.80	0.53
	6	0.00	0.20	1.00	-0.63	0.63
6	Quite a Bit	-0.54	0.20	0.13	-1.16	0.07
	8	0.17	0.48	1.00	-1.34	1.68
	A Great Deal	-0.33	0.48	1.00	-1.84	1.18
	Nothing	1.18*	0.19	0.00	0.59	1.77
	2	0.77*	0.20	0.00	0.15	1.40
	Very Little	0.33	0.19	0.73	-0.26	0.91
	4	-0.13	0.23	1.00	-0.85	0.59
	Some Influence	0.00	0.20	1.00	-0.63	0.63
Quite a Bit	Quite a Bit	-0.54	0.22	0.23	-1.22	0.13
	8	0.17	0.49	1.00	-1.37	1.70
	A Great Deal	-0.33	0.49	1.00	-1.87	1.20
	Nothing	1.72*	0.18	0.00	1.15	2.30
	2	1.32*	0.20	0.00	0.71	1.93
	Very Little	0.87*	0.18	0.00	0.29	1.45
	4	0.41	0.23	0.67	-0.30	1.12
	Some Influence	0.54	0.20	0.13	-0.07	1.16
	6	0.54	0.22	0.23	-0.13	1.22
8	8	0.71	0.49	0.87	-0.82	2.24
	A Great Deal	0.21	0.49	1.00	-1.32	1.74
	Nothing	1.01	0.48	0.46	-0.48	2.51
	2	0.61	0.48	0.94	-0.90	2.11
	Very Little	0.16	0.48	1.00	-1.34	1.65
	4	-0.30	0.49	1.00	-1.85	1.25
	Some Influence	-0.17	0.48	1.00	-1.68	1.34
	6	-0.17	0.49	1.00	-1.70	1.37
	Quite a Bit	0.71	0.49	0.87	-2.24	0.82
	A Great Deal	-0.50	0.66	1.00	-2.56	1.56

Table 60 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Nothing	1.51*	0.48	0.05	0.02	3.01
	2	1.11	0.48	0.34	-0.40	2.61
	Very Little	0.66	0.48	0.90	-0.84	2.15
	4	0.20	0.49	1.00	-1.35	1.75
	Some Influence	0.33	0.48	1.00	-1.18	1.84
	6	0.33	0.49	1.00	-1.20	1.87
	Quite a Bit	-0.21	0.49	1.00	-1.74	1.32
	8	0.50	0.66	1.00	-1.56	2.56

Note. Course I & J = How comfortable are you using evaluation strategies for virtual reality use?; = Significant at p < .05.*

Table 61.

Tukey Post-Hoc Multiple Correlations for item "I intend to use virtual reality more in training sessions with my students." *and "To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?".*

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Nothing	2	-0.28	0.20	0.91	-0.91	0.35
	Very Little	-0.35	0.18	0.57	-0.91	0.21
	4	-0.70*	0.18	0.01	-1.26	-0.13
	Some Influence	-0.85*	0.16	0.00	-1.35	-0.35
	6	-1.17*	0.22	0.00	-1.86	-0.49
	Quite a Bit	-1.43*	0.19	0.00	-2.02	-0.85
	8	-1.39*	0.41	0.02	-2.67	-0.10
	A Great Deal	-2.39*	0.49	0.00	-3.94	-0.84
2	Nothing	0.28	0.20	0.91	-0.35	0.91
	Very Little	-0.07	0.21	1.00	-0.72	0.57
	4	-0.42	0.21	0.53	-1.07	0.23
	Some Influence	-0.58	0.19	0.07	-1.17	0.02
	6	-0.90*	0.24	0.01	-1.65	-0.14
	Quite a Bit	-1.16*	0.21	0.00	-1.82	-0.49
	8	-1.11	0.42	0.18	-2.44	0.22
	A Great Deal	-2.12*	0.51	0.00	-3.70	-0.53
Very Little	Nothing	0.35	0.18	0.57	-0.21	0.91
	2	0.07	0.21	1.00	-0.57	0.72
	4	-0.35	0.19	0.65	-0.93	0.24
	Some Influence	-0.50	0.17	0.07	-1.02	0.02
	6	-0.82*	0.22	0.01	-1.52	-0.12
	Quite a Bit	-1.08*	0.19	0.00	-1.68	-0.48
	8	-1.04	0.41	0.23	-2.33	0.26
	A Great Deal	-2.04*	0.50	0.00	-3.60	-0.48
4	Nothing	0.70*	0.18	0.01		
	2	0.42	0.21	0.53		
	Very Little	0.35	0.19	0.65		
	Some Influence	0.16	0.17	0.99		
	6	0.48	0.23	0.46		

Table 61 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
Some Influence	Quite a Bit	-0.74*	0.19	0.01		
	8	-0.69	0.41	0.08		
	A Great Deal	-1.69*	0.50	0.02		
	Nothing	0.85*	0.16	0.00		
	2	0.58	0.19	0.07		
	Very Little	0.50	0.17	0.07		
	4	0.16	0.17	0.99		
	6	-0.32	0.21	0.84		
6	Quite a Bit	-0.58*	0.18	0.03		
	8	-0.54	0.40	0.92		
	A Great Deal	-1.54*	0.49	0.05		
	Nothing	1.17*	0.22	0.00		
	2	0.89*	0.24	0.01		
	Very Little					
	4					
	Some Influence					
Quite a Bit	Quite a Bit					
	8					
	A Great Deal					
	Nothing					
	2					
	Very Little					
	4					
	Some Influence					
	6					
8	8					
	A Great Deal					
	Nothing					
	2					
	Very Little					
	4					
	Some Influence					
	6					

Table 61 (continued).

(I) Course	(J) Course	Mean Difference	Std. Error	*p*	95% Confidence Interval	
					Lower Bound	Upper Bound
A Great Deal	Quite a Bit A Great Deal Nothing 2 Very Little 4 Some Influence 6 Quite a Bit 8					

Note. Course I & J = To what extent can you provide alternative explanation, through virtual reality, when students are confused about what you are teaching?; = Significant at p < .05.*

Objective Four: Multiple Regression

The final objective of this study was to investigate variances among the independent variables (perceived performance expectancy, perceived effort expectancy, perceived social influence, perceived facilitating conditions, self-efficacy, gender, age, academic rank, and years of teaching experience) on faculty behavioral intentions to adopt VR in academic courses. One hundred twelve respondents did not answer or did not provide answers that were able to be used to determine the regression analysis. The total number of respondents (n = 173) was used in the multiple regression analysis. Multiple regression was utilized to assess how the independent variables affect AAU Agriculture and Life Sciences faculties' behavioral intentions to adopt virtual reality. The multiple regression model coefficient is illustrated as: (Y) = a + b1x1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6 + b7x7 + b8x8 + b9x9.

When self-efficacy increased one unit, the loge of behavioral intentions to adopt virtual reality increased .18. When performance expectancy increased one unit, the loge of the behavioral intentions to adopt virtual reality increased .31. When social influence increased one unit, the loge of the behavioral intentions to adopt virtual reality increased .23. When facilitating conditions increased one unit, the loge of the behavioral intentions to adopt virtual reality increased .18. The multiple regression model for this study was illustrated as: Behavioral Intentions to adopt Virtual Reality in AAU Agricultural and Life Sciences programs = .49 + .18 Self-Efficacy + .31 Performance expectancy + .23 Social influence + .18 Facilitating conditions. The multiple regression model explained 58% of the variance on behavioral intentions in AAU Colleges of Agricultural and Life Sciences faculty. Using this model, researchers can forecast behavioral intentions to adopt virtual reality among College of Agricultural and Life Sciences faculty (see Table 62).

Table 62.

Summary of Multiple Regression Analysis

	B	*SE B*	*p*
Intercept	0.49	0.29	
Effort expectancy	0.51	0.05	0.54
Performance expectancy	0.31	0.29	0.00*
Social influence	0.23	0.18	0.00*
Self-efficacy	0.18	0.47	0.00*
Facilitating conditions	0.18	0.47	0.00*
Age	0.14	0.19	0.81
Appointment	0.06	0.02	0.65
Academic rank	0.04	0.06	0.62
Gender	0.01	0.01	0.85

**Note. $p < .05$; $R^2 = .59$; Adjusted $R^2 = .58$*

CHAPTER V

SUMMARY AND CONCLUSIONS

This thesis was developed to achieve two goals: first, to determine behavioral intentions of AAU College of Agricultural and Life Sciences faculty surrounding the adoption of virtual reality and how certain theoretical constructs are significant influencers. Second, to provide literature to the agriculture research community about virtual reality use in agricultural academia. Currently, there is a paucity of literature available to provide novice virtual reality instructors with proper training. Lindner et al. (2020) noted that lack of knowledge among teachers about virtual education instruction negatively impact student learning outcomes and lessen the quality of instruction. To address this issue, this thesis utilized Venkatesh et al.'s (2003) UTAUT constructs to better understand dissemination of virtual reality in academia. Future research can be built upon the foundation of this research and findings will assist in the approach to formal introduction of virtual reality in academia.

Conclusions for Objective 1

Objective 1 sought to determine the descriptive scores upon each construct derived from Venkatesh et al. (2003) UTAUT theory and Bandura's (1980) self-efficacy theory. Performance expectancy results indicated that faculty of these AAU institutions do not feel that these technologies provide advantages in academia. Faculty respondents indicated a disagreement upon virtual reality improving performance. Venkatesh et al. (2003) defined effort expectancy as the level unto which a person perceives the technology is easy to use. Upon review of the descriptive data for Venkatesh et al.'s (2003) effort expectancy construct, it was concluded that AAU Colleges of Agricultural and Life Sciences faculty do not believe that these technologies

are easy to use. The average means score fell between the disagree and neither agree nor disagree but leaned more towards no agreement (neither agree nor disagree); therefore, the researcher detected that faculties' perceptions of facilitating conditions aligned with a feeling of uncertainty.

Facilitating conditions' average mean scores indicated that AAU Colleges of Agricultural and Life Sciences faculty are not knowledgeable upon their institution's capability to provide proper infrastructure for virtual reality technologies. Social influence descriptive data suggested peer influence was higher than authoritative influence, which was concluded from the mean scores. Self-efficacy scores indicated small levels of efficaciousness amongst the AAU Colleges of Agricultural and Life Sciences faculty. Behavioral intentions descriptive data permitted the researchers to conclude that AAU College of Agricultural and Life Sciences faculty have little intention to adopt virtual reality. Average mean scores for behavioral intentions suggested that faculty disagree on the intentions to use virtual reality in academia.

Implications of Objective 1

The descriptive data indicated minimal use of virtual reality in academia, however, this does not correlate to a lack of opportunity. Venkatesh et al. (2003) indicated that performance expectancy had the highest influence on behavioral intentions to adopt technology. Descriptive data revealed that performance expectations are low, which implies that behavioral intentions about adopting and using virtual reality by AAU Colleges of Agricultural and Life Sciences faculty would be low. This implies that faculty need to be made aware of the performance benefits of using virtual reality, especially in light of research indicating that student learning performance increased when using virtual reality for science-based curricula (Liu et al., 2020). Venkatesh et al. (2003) defined performance expectancy as the perception the individual has

concerning using the system for enhancement in job performance. Virtual reality has been proven to enhance student performance (Liu et al., 2020); therefore, instructors should utilize VR to increase performance expectancy perceptions. The primary audience of this research was tenure-track faculty, which suggests that the perceptions of improved research performance of using virtual reality have not been conveyed adequately.

Research surrounding effort expectancy results portrayed them to be significant in predicting behavioral intentions (Venkatesh et al., 2003). Furthermore, faculty perceptions tended to align with a disagreement about the effective ease of use of VR. The basis of Venkatesh et al.'s (2003) definition of effort expectancy is how one perceives a technology is easy to use; corresponding mean scores indicated that faculty believe these technologies are difficult to operate. Facilitating conditions according to Venkatesh et al. (2003) is the belief an individual has in the infrastructural capabilities to utilize the technologies. Facilitating conditions' mean scores demonstrated that faculty have little belief in the infrastructure available to house the VR technologies that would lead to academic success. Because faculty had higher mean scores regarding social influence, the researchers were able to identify their alignment with Rogers' (2003) research on opinion leaders (those sought out by change agents to help push innovations to adoption). Thus, certain faculty within the departments are considered opinion leaders, as is evidenced by higher descriptive data. Department heads (authoritative figures) would be more closely aligned to Rogers' (2003) definition of change agents. Rogers (2003) indicated that change agents are specifically hired by organizations to help drive adoption. The change agents are responsible for garnering opinion leaders to improve innovation adoption (Rogers, 2003), therefore College of Agricultural and Life Sciences programs should acknowledge how department heads have influence on innovation adoption.

Self-efficacy means scores demonstrated that faculty have moderate confidence in using VR technologies that may provide academic success to students by enhancing communication and teaching strategies. Bandura's (1986) theory of self-efficacy refers to one's confidence in their ability to perform a behavior to generate performance. Self-efficacy descriptive data indicated that AAU Colleges of Agricultural and Life Science faculty have very little confidence in performing a VR-related task to generate an outcome. Mean scores for behavioral intentions demonstrated faculty members' low intentions of using virtual reality in their academic programs. Venkatesh et al. (2003) produced the UTAUT theory with constructs that have influence upon behavioral intentions behind using and adopting technologies. Descriptive data results indicated that respondents have little behavioral intentions to adopt virtual reality, which is confirmed by the low mean scores per construct item. Ajzen (1975) identified that behavioral intentions centered on attitudes and norms are a significant predictor of one's behavior; the researchers determined faculties' behaviors regarding the use of virtual reality will be non-existent unless adoption of virtual reality increases.

Recommendations upon Objective 1

Based on this research, it is recommended that practitioners consider the descriptive data indicated in this research and encourage them to employ practices that could induce behavior change and increase the mean scores of each construct. As aforementioned, performance expectations in this sample were low, suggesting academic programs wishing to use VR technologies provide proper training on operating the technologies. Thorough training to demonstrate how job performance can be improved by utilizing virtual reality would inherently increase performance expectation perceptions by AAU College of Agricultural and Life Sciences faculty. Furthermore, training specifically designed to demonstrate how to employ virtual reality

for research would tremendously increase performance expectations. The researchers recommend virtual reality research-based training because the substantial total of tenure-track faculty in the sample population. If faculty can have positive interactions with the technology, job performance expectancies would increase, yielding higher performance expectations perceptions.

A training that accommodates faculty needs but also provides them the knowledge required to operate virtual reality technology would be crucial for improving effort expectancy perceptions. As indicated by the findings, these perceptions demonstrated that faculty do not perceive VR technologies as "easy," thus establishing the need for training. Effort expectancy levels would be positively affected by providing proper training to demonstrate how easily these technologies can be to operate. As of the time of this writing, trainings on technologies such as the Oculus Rift, Oculus Go, Google Cardboard, HTC Vive, and PlayStation VR would be considered helpful. Each of these technologies depend on HMDs (Head-mounted displays) and non-HMDs to disseminate virtual experiences, which provide a transfer of knowledge to the users directly.

Furthermore, trainings would also provide an improvement in efficacy of using and operating virtual reality in the way faculty intend. Self-efficacy findings relayed low confidence in performing a behavior; implementing a training program to guide faculty in ways to use these technologies effectively would increase their efficaciousness. Additionally, providing a lab-based room to house VR technologies would provide necessary infrastructure to increase the faculty's confidence in the institutions' capabilities to implement a virtual reality program. A dedicated lab-room would provide a location to ensure training for current and future faculty.

Researchers should acknowledge how the roles of Rogers' (2003) opinion leaders and change agents play into Venkatesh et al.'s (2003) construct of social influence. This research discerned that faculty recognize their peers as influential in technology adoption. Technology adoption and intentions of use can stem from social influences; as such, it is recommended that AAU Colleges of Agriculture and Life Sciences department heads identify faculty opinion leaders. The adoption of technology, along with the behavioral intentions to use a technology, can be enhanced if faculty witness opinion leaders adopting and using them.

The researchers determined faculties' intentions to adopt virtual reality to be low because they are unaware of the need and rationale for learning and implementing VR for academic purposes. Providing faculty literature to support the use of virtual reality for academic success is vital for increasing behavioral intentions to adopt and use VR. Literature, coupled with a training program and lab-space to effectively use VR, could increase behavioral intentions. These recommendations target each of the constructs provided by Venkatesh et al. (2003), that proved the significant influences each construct has on behavioral intentions.

Because survey item 13 had such an impact on the alpha correlation of facilitating conditions, the researcher acknowledged that this question was not significant. Future researchers should not eliminate this question from their research using Venkatesh et al.'s (2003) UTAUT theory. Venkatesh et al. (2003) had significant results utilizing this question, therefore it should be included in technology acceptance research.

Conclusions for Objective 2

Objective two provided Pearson *r* correlations as they relate to the constructs derived from Venkatesh et al. (2003) UTAUT theory and Bandura's (1986) self-efficacy theory. The data from this research indicated that each construct has significant, positive associations regarding

behavioral intentions. Performance expectancy had the strongest relationships with virtual reality behavioral intentions. Venkatesh et al. (2003) predicted this phenomenon, as it was determined that performance expectancy has the highest significant influence on behavioral intentions in the UTAUT model. Alternatively, facilitating conditions had the weakest correlation to behavioral intentions, indicating that facilitating conditions have a weaker influence on behavioral intentions of AAU Colleges of Agricultural and Life Sciences faculty. Each of the constructs provided by Venkatesh et al. (2003) had positive associations. The researchers concluded that as faculties' perceptions of each construct increase, their behavioral intentions will subsequently rise. The Pearson *r* correlations demonstrated that each construct explained different levels of variance concerning each independent variable and behavioral intentions.

Implications of Objective 2

The Pearson correlations reported demonstrate that performance expectancy has the highest influence on faculties' behavioral intentions. These findings align with those of Venkatesh et al. (2003), who discerned that the UTAUT model indicated performance expectancy as a primary determinant. Self-efficacy was also a significant influence on behavioral intentions, with a very strong correlation. The magnitude of these constructs is very strong and confirm that Colleges of Agricultural and Life Sciences faculties' efficaciousness and expectations of positive performance were direct determinants of intentions to adopt virtual reality. This relationship, between performance expectancy and behavioral intentions, is confirmed by Venkatesh et al. (2003). Bandura (1980) relayed the ways in which outcomes of personal self-efficacy affect behavior change. Results indicate the way in which faculties' behavioral intentions when using VR can increase through higher self-efficacy and higher perceptions of performance.

Social influence was found to have a strong correlation with virtual reality intentions. This trend provides researchers with evidence to support how social influence can help drive virtual reality adoption in AAU Universities. Practitioners should determine which faculty members have the widest social network and target them, the opinion leaders, (Rogers, 2003) to disseminate the technology. Furthermore, research has shown that effort expectancy is a key determinant in behavioral intentions (Venkatesh et al., 2003. Effort expectancy correlations from this study offer evidence of a strong relationship between the faculties' perceived effort of utilizing virtual reality and their intentions to adopt it. Facilitating conditions had the lowest correlation but provided proof supporting the existence of a positive moderate association (Davis, 1971). Practitioners should recognize facilitating conditions' Pearson *r* magnitudes, as this phenomenon implies that even having necessary infrastructural capacities can increase virtual reality adoption in AAU Colleges of Agricultural and Life Sciences programs.

Recommendations upon Objective 2

Researchers and practitioners should take note of the magnitudes of each construct, primarily self-efficacy and performance expectancy. Colleges of Agricultural and Life Sciences departments wishing to promote the use of virtual reality must first raise self-efficacy levels and performance expectations. AAU Colleges of Agricultural and Life Sciences should develop practices, such as training programs, to improve faculty efficacy. Having higher confidence in using the technology for academic success can guide other faculty to adopt it. In the case of training practices, perceived effort and performance would increase when faculty become exposed to virtual reality learning. Because performance expectancy and self-efficacy have very strong positive associations to behavioral intentions, future researchers should discern how to address specific needs to increase associations in other constructs.

Transformational learning can occur through virtual reality technologies but disseminating that learning to students is controlled by the faculty within each university. Practitioners within these three AAU institutions should be made aware of the magnitude of the facilitating conditions Pearson *r*. This relationship has a significant impact on behavioral intentions, although the magnitude is smaller than the other constructs. Providing space to house and use this technology in academic settings would prove valuable in increasing the faculties' perceptions of their institutions' infrastructure. Providing necessary infrastructure can help encourage trainings and practices to establish positive faculty perceptions.

Conclusions for Objective 3

The ANOVA provided researchers a means to understand how construct perceptions were influenced by personal characteristics. Appointment (tenure and non-tenure) had significant influence upon behavioral intentions to adopt virtual reality. Race could not be analyzed due to minority underrepresentation, and gender was determined to have no significance. The researchers concluded that appointment (tenure and non-tenure) provided key information on the faculty between the three AAU Universities. The ANOVA data were critical in establishing how faculties' characteristics influence their intentions to adopt virtual reality.

Implications of Objective 3

Venkatesh et al. (2003) indicated specific personal characteristics, such as age and gender, are significant in predicting behavioral intentions. This study provides data that did not agree with those findings. What this research determined is that faculty at these institutions' Colleges of Agricultural and Life Sciences programs are primarily responsible for research. The researchers also understand that innovative teaching strategies are not at the forefront of research-focused collegiate educators. The appropriateness of utilizing virtual reality in different

programs has yet to be fully explored; therefore, faculty will need to adopt virtual reality at their own pace. The institutions cannot force research-track faculty to develop creative, innovative teaching elements to use these technologies without repercussions on the research side. Therefore, if primary research faculty develop interest in using virtual reality in both research and academic classes, virtual reality adoption can occur. Self-efficacy and performance expectations would increase due to the researchers being able to operate the technologies within research and academic teaching lenses. This phenomenon would also help provide social influences on peers at their and partner institutions, thereby increasing adoption rates. Practitioners should understand that faculty at AAU Tier-1 research institutions like the ones included in this study are primarily research focused. Therefore, if departments promote virtual reality technologies in academia, an assessment to determine tenure track and non-tenure track faculty is needed.

Gender proved to have no significant concerning behavioral intentions. This should be noted by practitioners, as it demonstrates that gender does not play a role in faculties' behavioral intentions to adopt virtual reality in AAU Colleges of Agricultural and Life Sciences. Venkatesh et al. (2003) discerned that gender is a direct influence on social influence, performance expectancy, and effort expectancy constructs. This was not the case in this research; however, the primary gender of this sample were males. Venkatesh et al. (2003) determined gender to be a significant moderating influence in past research. The ANOVA for gender and performance expectances were not significant, implying that task-orientation in AAU Colleges of Agricultural and Life Sciences faculty are not subject to only men. According to Venkatesh et al.'s (2003) reasoning behind gender being a moderating influence, results should have demonstrated that there was a significant influence in gender upon performance expectations. Venkatesh et al.

(2003) included literature suggesting how males have higher task-orientation, indicating gender roles play a part in influencing performance expectancy. What this research determined is that faculty at these institutions' Colleges of Agricultural and Life Sciences programs are primarily responsible for research.

Recommendations upon Objective 3

I recommend that AAU Universities included in this sample population and those outside of this research determine which faculty have general interests in virtual reality. Some level of interest would help promote VR adoption with proper training. If there are tenure-tracked faculty with interest in incorporating virtual reality technologies in their work, the programs could fund lab space where proper research can be conducted. Because the literature indicates that improved learning is capable through virtual reality, having research faculty incorporate it in their teaching would provide benefits to their research goals, to the students, and to the institution at large.

Because this objective determined that appointment was the only statistically significant personal characteristic, future studies should investigate other characteristics because the results of this study are not generalizable to other populations. Venkatesh et al. (2003) determined that personal characteristics outside of appointment play a significant role in determining behavioral intentions; this further supports the idea that these items should be included in future research. Since gender, age, and race were deemed not significant for this study, the researchers recommend that practitioners understand that virtual reality technologies can be disseminated outside common barriers. Older faculty could provide insight and ideas for best utilizing virtual reality technologies as can younger generations. Universities should not push virtual reality adoption to only one gender or race, as it was determined that these characteristics have no significant influence in predicating behavioral intentions. Instead, universities promoting virtual

reality adoption can gauge their educators' sense of behavioral intentions to adopt virtual reality before hiring an individual to implement the technology. Camaraderie among peers has shown to help drive innovation adoption; therefore, having individuals within a social system advocate for the innovation can encourage adoption at higher rates.

Conclusions for Objective 4

Objective four identified how variances among the independent variables would be determined and how each influences the dependent variable. The regression model provided the four crucial predictors to explain behavioral intentions: performance expectancy, self-efficacy, social influence, and facilitating conditions. This model highlighted how effort expectancy, age, gender, and appointment play no significant role in influencing faculties' behavioral intentions.

Implications of Objective 4

The model developed by Venkatesh et al. (2003) included characteristics, such as gender and age, as moderator variables with influence on performance expectancy, effort expectancy, and behavioral intentions. This was not the case in this study, as none of the personal characteristics rendered a significant beta. Performance expectancy had the highest significant beta and the most influence on behavioral intentions, which aligns with the research of Venkatesh et al. (2003). Self-efficacy, facilitating conditions, performance expectancy, and social influence generated significant results; therefore, these constructs are all significant predictors to determine behavioral intentions to adopt virtual reality among faculty from these three universities. It is important to consider that VR technologies can achieve greater adoption rates when faculties' perceptions of adopting virtual reality for preparing students for post-graduation success is higher.

As aforementioned, social influence was confirmed to have significant implications on faculties' behavioral intentions. This indicates that faculty peers hold power in pushing virtual reality adoption. As indicated by Rogers (2003), most interpersonal channels are homophilous, meaning that the individuals making up the social channel are alike. Rogers (2003) also relays that the more homophilous individuals are, the higher amount of intercommunication will occur. Furthermore, institutions should acknowledge that students and faculty within Agricultural and Life Sciences programs are more likely to be homophilous. Through greater levels of communication, virtual reality can be adopted successfully in academia, as faculty will recognize the innovation of the technology along with alternative learning opportunities.

Self-efficacy proved to have the third highest beta among the significant variables derived from the regression model. Efficaciousness is a construct constantly seen within the data regarding influencing behavioral intentions. Bandura (1980) determined that one's perceived self-efficacy can change when an individual has little prior experience. Practitioners should recognize this phenomenon and may identify ways to increase VR self-efficacy in order to provide faculty with experiences to better understand their levels of confidence using this technology. The model demonstrates different significant results for self-efficacy as a determinant for behavioral intentions than Venkatesh et al. (2003), who concluded that self-efficacy was not significant and was originally hypothesized for the UTAUT model. This difference indicates that this sample populations' intentions are significantly affected by their confidence in using virtual reality.

Facilitating conditions rendered one of the smallest significant betas. Like self-efficacy, facilitating conditions beta value demonstrates that perceptions of the infrastructure available can influence behavioral intentions to adopt virtual reality. This regression model disagreed with the

research provided by Venkatesh et al. (2003), whose research demonstrated that facilitating conditions were not significant as a determinant for behavioral intentions, yet this model demonstrates how facilitating conditions were significant at a p-value less than .05. This trend identified how important existing infrastructure is for collegiate Agricultural and Life Sciences programs.

Recommendations upon Objective 4

The researcher recommends that institutions discern how these four constructs can help identify their levels of behavioral intentions among faculty. As the literature indicates, adoption of virtual reality in agricultural academic settings is new for most faculty. It is recommended that virtual reality be trialed in different programs to understand how students perceive these technologies in relation to educational gains. Researchers have been able to demonstrate learning gain in students using virtual reality; however, these AAU institutions should measure student perceptions before adoption. If students feel that these technologies help provide them with educational value for post-graduation success, faculty need to be aware. The regression model provides a way to measure levels of behavioral intentions using each significant construct, but student perceptions can aid in understanding faculties' intentions to adopt virtual reality.

I also recommend that these three AAU institutions not focus attention on personal characteristics regarding the adoption of virtual reality. The model provides data to suggest that factors, such as gender and age are not significant determinants of AAU faculties' behavioral intentions to adopt virtual reality. Instead, further research should focus on the four constructs that showed statistically significant results. If institutions target younger faculty members, who they perceive to have higher intentions to adopt virtual reality, students' education may be hindered. Gender should also be treated similarly, as institutions should not focus on one specific

gender to push virtual reality adoption. AAU institutions should take note that faculty, regardless of personal characteristics, can provide educational opportunities using virtual reality to students.

Although this conclusion does not align with the results from Venkatesh et al. (2003) data from this study suggest that personal characteristics are not significant determinants of behavioral intentions to adopt virtual reality in the sample population. It is recommended that universities (AAU) identify how their intentions to adopt virtual reality can be specifically measured on the four constructs.

Recommendations for Agricultural Extension

For Practitioners

In agricultural extension, the study of online media to disseminate agricultural education is prevalent. Strong et al. (2022) investigated student learning in a virtual reality equine lesson. A recommendation for extension agents based upon the research findings would be to develop and utilize online media and trainings for agricultural extension efforts. The literature indicates that learning can occur through virtual reality (Beam & Hawkins, 2020), therefore extension agents should look to utilize them for beneficial learning opportunities. Self-efficacy is one of Venkatesh et al.'s (2003) constructs that rendered significant results of determining the adoption and use of virtual reality technologies. Extension agents should look to strategies to increase their efficaciousness (Strong & Harder, 2010). Having confidence to repeat a behavior such as teaching with virtual reality can help stakeholders who seek to learn via these technologies. Parikh et al. (2022) discerned that virtual reality should be developed in congruence with modernization efforts within land grant universities and their cooperative extension efforts. Cooperative extension agents should look to find avenues where learning is possible through virtual reality. Equine judging and selection, horticulture, and tractor safety are just three proven areas where virtual reality has applications to increase stakeholder learning (Strong et al., 2022; Strong & Harder, 2010; Ojado-Gonzalez, 2017). Finding areas of application for these technologies will render the best product. Virtual reality literature demonstrates that areas of agriculture and other fields can benefit from the utilization, therefore extension agents should discern those niche markets.

For Extension Researchers

Extension researchers should look to identify how the adoption of virtual reality media in agriculture can be influenced by extension agents. Social influence was one of the significant predictors of behavioral intentions of utilizing virtual reality in AAU College of Agricultural and Life Sciences departments. Utilizing Venkatesh et al.'s (2003) construct of social influence, combined with Rogers' (2003) diffusion of innovations theory, researchers should look to determine what level of significant extension agents can have upon agricultural stakeholders. The literature indicates that extension agents' role is to disseminate innovative technologies in agricultural communities (Fiaz et al., 2018; Strong et al., 2010). Asiedu-Darko (2013) stated that successful diffusion of innovative technologies requires extension agents to have improved competencies. Understanding how efficaciousness in extension agents determines the diffusion of the technology within the communities they interact in, researchers should identify how to improve agent's competency of modernized virtual reality technology. Agricultural extension and the impact on its stakeholders (Mikwamba et al., 2021) can be improved by the adoption and use of innovative technologies (Dhehibi et al., 2022).

Recommendations for Future Research

Research Study 1

The researcher endorses a series of future studies centered around the conclusions of this thesis. The first proposal is for a quantitative research study investigating how to effectively raise efficacy levels within collegiate agricultural faculty to increase the adoption of virtual reality in academia. Bandura (1986) identified four sources of self-efficacy: enactive entertainment, vicarious experiences, verbal persuasion, and physiological state. This research would examine

how each source of self-efficacy (Bandura, 1986) provides varying degrees of influence upon higher education faculty efficaciousness. Bandura (1986) acknowledged how repeated success led to enhanced self-efficacy, therefore the researchers suggest the sample population be directed to learn through virtual reality modules. The researcher presumes that successful training experiences would improve efficaciousness. Vicarious experiences (Bandura, 1986) can be introduced to the sample population through the provision of discourse amongst peers. Bandura (1986) verbal persuasion construct determined that individuals who can be persuaded produce positive results (Chambliss & Murray, 1979a, 1979b). Persuasion can occur through the provision of literature to the sample affirming how virtual reality improves student learning. When the sample can see the educational value virtual reality possesses, persuasion would theoretically occur. Effectively removing fear or discrepancies of utilizing virtual reality is the last barrier to achieve improved self-efficacy (Bandura, 1986). The researchers suggest that the prior implementation procedures (module training and literature provision) will result in eradicated negative physiological states.

To statistically analyze results, the researchers would recommend that descriptive scores, Pearson *r*, and a regression analysis be derived to determine which construct provided by Bandura (1986) has the greatest effect in increasing self-efficaciousness in College of Agricultural and Life Sciences faculty. Fraenkel et al. (2019) identified that descriptive statistics enable researchers to explain sample population means and medians. The researchers suggest quantitative descriptive statistics be utilized to establish how identified variables mean scores exists upon a determined scale (Fraenkel et al., 2019). Fraenkel et al. (2019) established that Pearson *r* correlations are suitable when quantitative data is present. A Pearson *r* correlation is conveying the level of correlation between quantitative variables (Fraenkel et al., 2019). A

multiple regression analysis would allow the researcher to determine the correlation between the dependent variable (self-efficacy) and independent variables (the four sources of self-efficacy) (Fraenkel et al., 2019).

Research Study 2

This thesis research contained more tenure-track faculty than non-tenure track. The researchers recommend a study be conducted targeting both proportions of the faculty separately (tenure-track and non-tenure-track). A study examining a defined population can provide necessary information to help disseminate and adopt virtual reality in Colleges of Agricultural and Life Sciences. As Fernandez (2017) revealed, training instructors can lead to further dissemination of virtual reality technologies. Nissim and Weissblueth (2017) examined virtual reality use for training teachers and concluded that virtual reality learning environments used to train student teachers enhanced teacher self-efficacy and enhanced innovativeness. This proposed future research should identify how training non-tenured (or tenured) faculty can lead to a higher degree of innovativeness in classrooms, specifically focused on virtual reality use. Populations should be drawn from accessible Universities' College of Agricultural and Life Sciences programs. The researcher choosing to employ this study must be knowledgeable about virtual reality technologies to provide the most acceptable and deliberate training to faculty.

Foundational aspects of the methodology would encompass sampling a specific population (tenured or non-tenured) and the employment of training encouraging improved knowledge of virtual reality for educational practice. A survey would be issued to the participants to document how this training would improve their intentions to adopt virtual reality. Fraenkel et al. (2019) suggest that survey research has the capability to describe the beliefs of the population. A simple linear regression should be utilized to understand the relationship between

training and intentions to adopt virtual reality. To lead to further adoption of virtual reality in these programs, they must recognize the need for proper environments to provide training (to raise efficaciousness) and space to utilize these technologies. It must also be noted that through training, self-efficacy expectations can rise, due to having familiarity, repeated success (Bandura, 1986) and a higher self-efficacy level.

Research Study 3

A final future research recommendation would be to evaluate students' perceptions to learning with virtual reality upon the constructs set forth by Venkatesh at el. (2003) and Bandura (1980). A survey design would need to be implemented to reach students easily across multiple campuses. Due to this current study identifying and researching three AAU Colleges of Agricultural and Life Sciences faculty, the researchers recommend looking solely at AAU University's students. This potential research would help provide literature to support virtual reality adoption amongst Colleges of Agricultural and Life Sciences faculty. Using survey design, the researchers recommend t-tests be issued to determine means and standard deviations across each construct's items. A Pearson *r* correlation would be recommended to determine magnitudes of the relationships and a linear regression model should be issued to determine how to measure students' intentions. This thesis study depicts faculties' behavioral intentions to adopt virtual reality but understanding the student aspect would help programs promoting virtual reality technology in academia. If students demonstrate higher efficaciousness paired with data to demonstrate their knowledge of using these technologies, faculty can understand how to better serve their students for post-graduation success. In turn, faculties behavioral intentions to adopt virtual reality would also be affected, therefore the researchers would recommend a follow up-study using the guidelines set by this thesis study. That follow up study would use the same

sample population as the one indicated by students' perceptions and use the survey provided by this thesis study. If researchers could determine that increasing students' perceptions had positive effects of faculties' behavioral intentions, this phenomenon would theoretically lead to higher adoption of virtual reality in higher-education academia.

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APPENDIX A

Data collection survey built upon Venkatesh et al.'s (2003) UTAUT theory and Bandura's (1993) self-efficacy theory

VR UTAUT

PART 1: VR PREFERENCES

Directions: Please rate the extent to which you agree with each statement below by selecting the most appropriate option for each statement below.

Section I: Performance Expectancy

Scale:
1 = *Strongly Disagree*
2 = *Disagree*
3 = *Agree*
4 = *Strongly Agree*

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
Using VR enables me to accomplish tasks more quickly	1	2	3	4
Using VR enhances the quality of my work	1	2	3	4
Using VR makes it easier to do my work	1	2	3	4
Using VR, I can do much more work	1	2	3	4

Section II: Effort Expectancy

Scale:
1 = *Strongly Disagree*
2 = *Disagree*
3 = *Agree*
4 = *Strongly Agree*

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
I find it easy to use VR to do what I want to do	1	2	3	4
I find it easy for me to become skillful in using VR	1	2	3	4
I find it easy to use VR	1	2	3	4
I intend to use VR more in training sessions with my students	1	2	3	4
I intend to use VR more to keep in touch with my students	1	2	3	4
I intend to use VR more to get information out to my students	1	2	3	4

Section III: Facilitating Conditions

Scale:
1 = *Strongly disagree*
2 = *Somewhat disagree*
3 = *Neither agree nor disagree*
4 = *Somewhat disagree*
5 = *Strongly disagree*

Question	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have the resources necessary to use VR	1	2	3	4	5
I have the knowledge necessary to use VR	1	2	3	4	5
VR is not compatible with other technologies I use	1	2	3	4	5
	1	2	3	4	5

A specific person (or group) is available for assistance with system difficulties					

Section IV: Social Influence

Scale:
1 = *Strongly Disagree*
2 = *Disagree*
3 = *Agree*
4 = *Strongly Agree*

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
People who are influential in my field think I should use virtual reality in my teaching.	1	2	3	4
People who I work with think I should use virtual reality in my teaching.	1	2	3	4
My department faculty think I should use virtual reality in my teaching.	1	2	3	4
My department head thinks I should use virtual reality in my teaching.	1	2	3	4

Section V: Behavioral Intentions

Scale:
1 = Strongly Disagree
2 = Disagree
3 = Agree
4 = Strongly Agree

Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
I intend to use VR more to store teaching materials	1	2	3	4
I intend to use VR more to acquire the knowledge I need to enhance my training	1	2	3	4
I intend to use VR more for preparing training materials	1	2	3	4

I intend to use VR more to contact farmers	1	2	3	4
I intend to use VR more to search for information when preparing my programs	1	2	3	4
I intend to use VR more for my personal tasks	1	2	3	4
I intend to use VR more for enhancing my knowledge	1	2	3	4
I intend to use VR more for personal contact	1	2	3	4
I intend to use VR more in the future in all of my work	1	2	3	4

Part VI: Self-efficacy

Directions: Please indicate your opinion about each of the statements below by selecting your response.

1 = Nothing (**N**)
3 = Very Little (**VL**)
5 = Some Influence (**SI**)
7 = Quite a Bit (**QB**)
9 = A Great Deal (**AGD**)

Items	N		VL		SI		QB		AD
How well can you respond to students through VR?	1	2	3	4	5	6	7	8	9
How much can you gauge student comprehension of what you taught through VR?	1	2	3	4	5	6	7	8	9
To what extent can you craft good questions from your students through VR?	1	2	3	4	5	6	7	8	9
How comfortable are you using evaluation strategies for VR use?	1	2	3	4	5	6	7	8	9
To what extent can you provide an alternative explanation, through VR, when students are confused about what you are teaching?	1	2	3	4	5	6	7	8	9
How well can you implement alternative strategies in your teaching when using VR to teach?	1	2	3	4	5	6	7	8	9

Part VII: Previous VR Experience

1. Can you share any examples of how you used virtual reality technology in class to achieve a particular learning outcome?

2. If you want to use virtual reality technologies in class more, what organizational barriers (training, software, and implementation) exist for you to use the technology to teach student?

Part VIII: PERSONAL CHARACTERISTICS

Directions: This is the last portion of the survey. Please check the statement in each section that best describes you or fill in the blank of the most appropriate answer.

1. My gender is? (Please check your response)

   Male □
   Female □
   Non-binary □
   Prefer not to answer □

2. What year were you born? (Please type in your response):

   Year _____

3. What is your identified race? (Please select one)

   American Indian/Alaskan Native □
   Asian □
   Black or African American □
   Native Hawaiian or Pacific Islander □
   White □

4. What is your current Academic Rank?

   Rank _____

5. Which is your appointment as a faculty member? (Please select one)

   Tenure Track □
   Non-Tenure Track □

6. How many years have you served as a faculty member in your college?

Years _____

7. What is the name of your academic department?

Name _____

THANK YOU!

APPENDIX B

The UTAUT Model

Venkatesh et al. (2003) UTAUT Model concerning Thesis Research
Performance Expectancy
a. I would find the system useful in my job.
b. Using the system enables me to accomplish tasks more quickly.
c. Using the system increases my productivity.
d. If I use the system, I will increase my chances of getting a raise.
Effort expectancy
a. My interaction with the system would be clear and understandable.
b. It would be easy for me to become skillful at using the system.
c. I would find the system easy to use.
d. Learning to operate the system is easy for me.
Social Influence
a. People who influence my behavior think that I should use the system.
b. People who are important to me think that I should use the system.
c. The senior management of this business has been helpful in the use of the system.
d. In general, the organization has supported the use of the system.
Facilitating Conditions
a. I have the resources necessary to use the system.
b.: I have the knowledge necessary to use the system.
c. The system is not compatible with other systems I use.
d. A specific person (or group) is available for assistance with system difficulties.
Self-Efficacy
I could complete a job or task using the system...
a. If there was no one around to tell me what to do as I go.
b. If I could call someone for help if I got stuck.
c. If I had a lot of time to complete the job for which the software was provided.
Behavioral Intentions
a. I intend to use the system in the next <n> months.
b. I predict I would use the system in the next <n> months.
c. I plan to use the system in the next <n> months.

APPENDIX C

Tschannen-Moran and Woolfolk Hoy's (2001) modified self-efficacy instrument from Bandura's (1993) work

Measuring Self-Efficacy
1. How much would mobile learning technology help you to follow course objectives?
2. How much can you do with mobile learning to learn effectively?
3. How much does mobile learning help you assist your peers with educational content?
4. How much does mobile learning help you focus on education content?
5. How much would mobile learning help you use evaluation strategies?
6. Does mobile learning help you evaluate your own learning?
7. How much does mobile learning motivate you to learn educational content?
8. How much does mobile learning get you to believe you can do well in school?
9. How much does mobile learning help you value learning?