A Course Focused on the Critical Issues in Agriculture: Students' Acceptance and Use of Mobile Learning

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Abstract

Higher education has adopted innovative teaching strategies and devices to influence student learning to meet the demands of a technology-driven society. Mobile learning is the use of mobile technology to access educational content. Agricultural leadership educators have studied technology use, preferences and level of acceptance from instructor and student perspectives. Quantitative methods were used to measure the effects of personal characteristics on students' likely acceptance of mobile learning. Students (n=84) enrolled in a critical issues in agricultural leadership course at Texas A&M University completed questionnaire to assess their level of performance expectancy, effort expectancy, behavioral intention and self-efficacy toward mobile learning. A majority of students agreed mobile learning would be easy to use, be used in the near future, contribute positively to their performance and influence their learning in school. Findings in this study indicate students are ready and accepting of mobile learning as a viable tool for learning; however agricultural leadership educators should be aware that successful technological incorporation includes feasibility and the alignment with course learning outcomes. Further research should include replication with a larger sample size, investigation of the impact of mobile learning in the classroom and examination of the relationship between mobile learning use and leadership skills and competencies.

Introduction

Over the last several decades the number of technological advancements has grown exponentially. Individuals use technology to stay abreast with current events, communicate with others and as forms of entertainment. Businesses rely on technology to conduct meetings, gain competitive advantages and monitor their market shares. Students are no exception and are attached to their digital cameras, cell phones, PDAs, video, mp3 players and i-devices. They use the technology to gather information, play games, shop, socially network and learn (Hanson et al., 2011).

Higher education has quickly adopted innovative teaching strategies and technological devices to influence student learning (Laird and Kuh, 2005; Renes and Strange, 2011; Sherer and Shea, 2011). The millennial generation, also known as the "connected" generation, presents educators with new challenges of engagement and high impact learning. Educators have developed distance learning programs to meet students' increasing technological savvy. Whole degree programs are offered online due to the advent of eLearning. Colleges and universities are now relying on social media, the use of applications and creating practical simulations in Second Life (Allen et al., 2010; Leggette et al., 2012).

In agricultural and leadership education, several scholars have researched technological use, perceptions and efficacy from instructor and student perspectives. Alston et al. (2003) found instructors had a favorable perception in regards to the future use of technology in the agricultural classroom. Rhoades et al. (2008) surveyed undergraduate students concerning their use of technology in and out of the classroom and their preferences for increased use in podcasts, ePortfolios, RSS (Rich Site Summary) feeds, iPods or mp3 players and blogs and found instructors have made little progress in adopting these technologies. A recent study assessed students' varying acceptance of Second Life, Twitter and content management systems and found the technology should be presented to students in a manner which clearly conveys its educational benefits (Murphrey et al., 2012). A majority of students using tablet computers in agriculture and biology courses reported positive impacts on their learning environments (Shuler et al., 2010).

Using technology in the classroom also prepares students for the demands of their future careers. Boyd and Murphrey (2002) found computer-based simulations have the potential to increase student's learning of leadership concepts. Agricultural education undergrads indicated Web-enhanced courses taught them real-world skills in technology use, provided problem solving opportunities and enabled collaborative online communication forums (Alston and English, 2007). Another study found a video production assignment "*allowed [students] to learn both in a different way and also learn skills that could be used as a leader in the future*" (Guthrie, 2009, p. 134). Educators should remain cognizant of the career skills and abilities innovative teaching strategies and delivery tools provide for enhanced practical learning.

Leadership is a relational process between two or more members of a group working toward goal attainment (Bass, 1990). Leaders across all contexts adjust their leadership style to meet the needs of their followers and style flexibility is a critical component of situational leadership, leader-member exchange and transformational and transactional leadership. In organizations, leaders use a variety of facilitation strategies, support and training and technology incorporation methods to meet the needs of organizational members. A few studies have empirically researched leadership and its effect on information technology acceptance and use. Devaraj et al. (2008) found the five-factor model of personality, a trait approach to leadership, to be a useful predictor of users' attitudes and beliefs toward technology. Schepers et al. (2005) found that the transformational leadership style positively influences followers' perceived usefulness of technology. Charismatic leadership was also found to positively influence follower performance expectancy and effort expectancy scores related to technology (Neufeld et al., 2007).

Despite the number of studies of instructional strategies and device acceptance, little research exists in the literature investigating mobile learning in agricultural leadership education. Mobile learning is the use of mobile technology, in the form of a smartphone or tablet device, to allow learners the ability to access educational context at any time or place (Peng et al., 2009). Mobile learning can engage students in the classroom to work with one another and collect and evaluate information instantly. Mobile technologies can create more collaborative learning environments (Alexander, 2004).

As leaders in the classroom, agricultural leadership educators should investigate innovative means to engage students and create impactful learning experiences. Mobile learning may be a means to create more significant learning experiences. This study served to investigate students' likely acceptance of mobile learning as a viable educational mode in an agricultural leadership education course.

Theoretical Framework

The theoretical framework for this study was based on technology acceptance and self-efficacy. Davis (1989) developed the theory of reasoned action to explain individual's acceptance and use of technology. Venkatesh et al. (2003) constructed the Unified Theory of Acceptance and Use of Technology (UTAUT) to expand the theory of reasoned action by delineating individual's behavioral intention to use technology. The four factors of the UTAUT are performance expectancy, effort expectancy, social influence and facilitating conditions. The social influence and facilitating conditions factors embody behavioral intention.

Performance expectancy is the extent an individual believes using technology will improve their likelihood to accomplish an objective (Venkatesh et al., 2003). The level of ease associated with the use of technology is the effort expectancy factor. Social influence is the degree an individual perceives the value of using a specific piece of technology over another. Venkatesh et al. (2003) indicated facilitating conditions is the degree an individual believes the infrastructure exists to use the technology.

Venkatesh et al. (2003) UTAUT has been used to frame numerous studies associated with students' acceptance and usage of technology. The UTAUT was utilized as the theoretical framework for Lin and Anol's (2008) study of students' acceptance and use of instant messaging to deliver course content. Shin et al. (2011) employed the UTAUT as the framework in their study with students' acceptance of smartphones as learning devices. The UTAUT was incorporated to study the adoption of technology for informal learning environments (Straub, 2009). A few studies using the UTAUT investigated the influence of demographic variables such as gender, age and prior technology experiences. Marchewka et al. (2007) implemented the UTAUT to support a study of college students' acceptance and usage of course management software. The study found that age and gender did not have a significant effect on Blackboard usage. Pardamean and Susanto (2012) framed their study on mathematics students' acceptance of blog technology with the UTAUT. The researchers found no significant differences between males and females or the level of experience for blogging acceptance. Murphrey et al. (2012) used the UTAUT to frame their study of students' acceptance of Second Life, Twitter and content management systems. The study found female students accepted the technologies more than males. Irby and Strong (2013) used UTAUT and self-efficacy to examine mobile learning acceptance in agricultural leadership students.

Self-efficacy theory was developed by Bandura (1977) to explain an individual's perceived capacity to reach a specific outcome. Self-efficacy is derived from four types of experiences: performance accomplishments or personal mastery; vicarious experience or observation of other's mastery; verbal persuasion through other's positive feedback; and emotional arousal or how one feels. Bandura found that individuals with developmental experiences increase the likelihood of higher self-efficacy and will encourage themselves to seek out challenging objectives. Individuals with low self-efficacy tend to avoid perceived difficult endeavors. Self-efficacy is a predictor of individual's potential to seek out and accomplish internal or external responsibilities. Tschannen-Moran and Woolfolk Hoy (2001) suggested studying individual's self-efficacy is a simple line of inquiry but powerful in terms of how data may be used to assist in improving current and future teaching strategies.

Diverse leadership researchers have incorporated self-efficacy as the theory to scaffold studies. Increased self-efficacy can enhance students' transformational leadership skills (Fitzgerald and Schutte, 2010). McCormick (2001) used self-efficacy to frame a study focusing on effective leadership traits. Villanueva and Sánchez (2007) utilized self-efficacy in the theoretical framework to study students' emotional intelligence. Walumbwa et al. (2011) implemented self-efficacy theory to examine the role between ethical leadership and employee performance. Self-efficacy was identified as a factor in follower's leadership effectiveness (van Knippenberg et al., 2004). Choi et al. (2003) studied the effect of self-efficacy's role in different leadership teams. The study investigated the participant characteristics and found no effects of age, gender, or race.

Purpose and Objectives

The purpose of this exploratory descriptive study was to examine the level of mobile learning acceptance of undergraduate students enrolled in a course covering critical issues in agricultural leadership in the Agricultural Leadership, Education and Communications department at Texas A&M University. More specifically, the study addressed the following objectives:

1. Describe agricultural leadership students' level of performance expectancy, effort expectancy, behavioral intention and self-efficacy focused on mobile learning; and
2. Determine relationships between performance expectancy, effort expectancy, behavioral intention and self-efficacy based on student characteristics (gender, grade classification, GPA and employment status).

Methodology

Survey research was the approach for this study. The target population was all undergraduate students in the agricultural leadership degree program at Texas A&M University. The accessible population was students (N = 99) enrolled in a critical issues in agricultural leadership course at Texas A&M University. Data was collected through the use of paper survey administered during class. Although a census study, the course selection was used as a slice in time (Oliver and Hinkle, 1981) sampling of students due to the variability in participant demographics and representativeness of the target population. Fraenkel et al. (2012) suggested census studies enable researchers to eliminate potential sampling errors and to generalize findings to a target population.

The critical issues course is an introductory class for new students entering the agricultural leadership program at Texas A&M University. The purpose of the course is to help students identify personal goals and learning skills that promote academic and career success in college. Students also research the skills and competencies employers seek in new hires. They identify, name and describe career settings for a degree in agricultural leadership; plan a course of study; and create developmental plans for fulfilling professional and personal goals.

This study implemented the UTAUT scale created by Venkatesh et al. (2003) to assess mobile learning acceptance. The UTAUT constructs examined in this study were performance expectancy, effort expectancy and behavioral intention. Facilitating conditions and social influence were not examined as these constructs did not fit the study objectives. Mobile learning acceptance was measured on the UTAUT's seven-point summated scale: 1 = strongly disagree, 2 = moderately disagree, 3 = somewhat disagree, 4 = neutral (neither disagree nor agree), 5 = somewhat agree, 6 = moderately agree and 7 = strongly agree.

A modified version of the Teacher Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk Hoy's (2001) was used to assess students' self-efficacy of mobile learning. Tschannen-Moran and Woolfolk Hoy developed the Teacher Sense of Efficacy Scale based upon Bandura's (1977) self-efficacy theory. The TSES utilized a nine-point summated scale for each item with anchors: 1 = nothing, 3 = very little, 5 = some influence, 7 = quite a bit and 9 = a great deal. Participants' gender, grade classification, grade point average and employment status were the personal characteristics examined by the researchers.

The researchers employed a 28 item combined instrument including the UTAUT scale, TSES and questions related to participants' personal characteristics. Content validity of the combined instrument was assessed by a team of researchers from Texas A&M University. The reliability coefficients for each construct were calculated ex post facto. The internal consistency of the performance expectancy construct was α = .94, effort expectancy α = .92, behavioral intention α = .98 and self-efficacy α = .95. Each construct had acceptable reliability coefficients (Cronbach, 1951).

To address objective one of the study, descriptive statistics were implemented to describe agricultural leadership students' level of performance expectancy, effort expectancy, behavioral intention and self-efficacy. Agresti and Finlay (2009) postulated that descriptive statistics uncover characteristics of dissimilar groups in order to measure their attitudes toward a distinctive factor. Descriptive statistics are techniques to arrange, summarize, calculate and describe a dataset. Mean and standard deviation were two descriptive statistical measures used in the study. The mean is the average score of a distribution and standard deviation represents the spread of a distribution (Fraenkel et al., 2012).

The second objective of the study was to determine if significant differences existed between performance expectancy, effort expectancy, behavioral intention and self-efficacy based on student characteristics (gender, grade classification, GPA and employment status). Agresti and Finlay (2009) indicated a t-test reveals whether the difference between two means is statistically significant. The researchers employed t-tests to determine if significant differences existed among gender and performance expectancy, effort expectancy, behavior intention and self-efficacy. Differences between GPA and performance expectancy, effort expectancy, behavior intention and self-efficacy were assessed with t-tests due to two dominant student GPA categories.

Eighty-four (n = 84) participants responded to the questionnaire resulting in an 84.48% response rate. The majority of respondents were male (n = 53, 63.10%), juniors (n = 46, 54.76%), worked part-time (n = 46, 55.4%) and had a GPA between 2.99 and 2.50 (n = 33, 39.80%). The limitations of this study are the population as they were students enrolled in a single course in the Agricultural Leadership, Education and Communications department at Texas A&M University. However, the results do offer agricultural leadership education academics insight on factors that affect students' acceptance and use of mobile learning.

Findings

The data is presented as means and standard deviations as the data was normally distributed indicating kurtosis and skewness were not apparent in the dataset. The first objective of the study was to describe agricultural leadership students' level of performance expectancy, effort expectancy, behavioral intention and self-efficacy. The item earning the highest mean for the performance expectancy construct was "Using mobile learning enables me to accomplish tasks more quickly" (M = 5.40, SD = 1.67). "If I use mobile learning, I will increase my chances of getting a good grade" (M = 4.81, SD = 1.60) earned the lowest performance expectancy score (Table 1).

Table 2 illustrates the descriptive statistics for the effort expectancy construct of the UTAUT. The highest means occurred for the items "It would be easy for me to become skillful at using mobile learning" (M = 5.26, SD = 1.52) and "Learning to operate mobile learning is easy for me" (M = 5.21, SD = 1.64). The lowest mean was associated with the item "My interaction with mobile learning would be clear and understandable" (M = 4.95, SD = 1.64).

Table 3 illustrates the descriptive statistics for the behavioral intention construct of the UTAUT. The item earning the highest score was "I predict I will use mobile learning in the next 12 months" (M = 5.24, SD = 1.63).

Table 1. Descriptive Statistics for the Performance Expectancy Construct (N = 84)

Items	N	M	*SD*
Using mobile learning enables me to accomplish tasks more quickly.	84	5.40	1.67
I would find mobile learning useful in school.	84	5.26	1.75
Using mobile learning increases my productivity.	84	5.01	1.57
If I use mobile learning, I will increase my chances of getting a good grade.	84	4.81	1.60

Note. Overall: *M* = 5.13, *SD* = 1.50. Scale: 7 = *strongly agree*, 6 = *moderately agree*, 5 = *somewhat agree*, 4 = *neutral*, 3 = *somewhat disagree*, 2 = *moderately disagree*, 1 = *strongly disagree*.

Table 2. Descriptive Statistics for the Effort Expectancy Construct (N = 84)

Items	N	M	*SD*
It would be easy for me to become skillful at using mobile learning.	84	5.26	1.52
Learning to operate mobile learning is easy for me.	84	5.21	1.64
I would find mobile learning easy to use.	84	5.08	1.68
My interaction with mobile learning would be clear and understandable.	84	4.95	1.64

Note. Overall: *M* = 5.12, *SD* = 1.47. Scale: 7 = *strongly agree*, 6 = *moderately agree*, 5 = *somewhat agree*, 4 = *neutral*, 3 = *somewhat disagree*, 2 = *moderately disagree*, 1 = *strongly disagree*.

Table 3. Descriptive Statistics for the Behavioral Intention Construct (N = 84)

Items	N	M	*SD*
I predict I will use mobile learning in the next 12 months	84	5.24	1.63
I plan to use mobile learning in the next 12 months.	84	5.11	1.56
I intend to use mobile learning in the next 12 months.	84	4.99	1.63

Note. Overall: *M* = 5.10, *SD* = 1.55. Scale: 7 = *strongly agree*, 6 = *moderately agree*, 5 = *somewhat agree*, 4 = *neutral*, 3 = *somewhat disagree*, 2 = *moderately disagree*, 1 = *strongly disagree*.

"I intend to use mobile learning in the next 12 months" earned the lowest score (M = 4.99, SD = 1.63) in the behavioral intention construct.

Describing students' level of self-efficacy was a part of the first objective (Table 4). The two items earning the highest scores were "How much does mobile learning help you to follow course objectives?" (M = 5.96, SD = 2.10) and "How much can you do with mobile learning to learn effectively?" (M = 5.90, SD = 1.67). "How much does mobile learning help you value learning?" (M = 4.87, SD = 1.85) earned the lowest score within the self-efficacy construct.

The second objective of the study was to determine if significant differences existed between personal characteristics and performance expectancy, effort expectancy and self-efficacy. There was a significant difference in gender, F (1, 81) = 6.84, p < .05 and effort expectancy (Table 5). The effect size was medium (η^2 = .30). Tukey's post hoc analysis was conducted to determine if differences existed in gender. There was a significant difference (p < .05) between females (M = 5.71, SD = 1.15) and males (M = 4.85, SD = 1.54).

There was a significant difference in gender, F (1, 81) = 4.30, p < .05 and performance expectancy. The effect size was small (η^2 = .24). Tukey's post hoc analysis was performed to determine if differences emerged in gender. There was a significant difference (p < .05) between females (M = 5.61, SD = 1.27) and males (M = 4.90, SD = 1.57).

There was a significant difference in gender, F (1, 81) = 3.99, p < .05 and self-efficacy. The effect size was small (η^2 = .23). Tukey's post hoc analysis was implemented to determine if differences occurred in gender. There was a significant difference (p < .05) between females (M = 5.85, SD = 1.56) and males (M = 5.10, SD = 1.66).

There was a significant difference in GPA, F (1, 69) = 3.89, p < .05 and performance expectancy (Table 6). The effect size was negligible (η^2 = .17). Tukey's post hoc analysis was employed to determine if differences existed in GPA. There was a significant difference (p < .05) between students with GPAs from 3.49 to 3.00 (M = 5.53, SD =.62) and students with GPAs from 2.99 to 2.50 (M = 4.91, SD = 1.32).

There was a significant difference in GPA, F (1, 69) = 3.64, p < .05 and effort expectancy. The effect size was negligible (η^2 = .14). Tukey's post hoc analysis was conducted to determine if differences existed in GPA. There was a significant difference (p < .05) between students with GPAs from 3.49 to 3.00 (M = 5.59, SD =.86) and students with GPAs from 2.99 to 2.50 (M = 4.73, SD = 1.32).

Table 4.Descriptive Statistics for the Self-efficacy Construct (N = 84)

Items	N	M	*SD*
How much does mobile learning help you to follow course objectives?	84	5.96	2.10
How much can you do with mobile learning to learn effectively?	84	5.90	1.67
How much does mobile learning help you assist your peers with educational content?	84	5.43	2.16
How much does mobile learning help you focus on educational content?	84	5.40	2.10
How much does mobile learning help you use evaluation strategies?	84	5.33	1.90
Does mobile learning help you evaluate your own learning?	84	5.26	2.10
How much does mobile learning motivate you to learn educational content?	84	5.07	1.83
How much does mobile learning get you to believe you can do well in school?	84	4.93	1.76
How much does mobile learning help you value learning?	84	4.87	1.85

Note. Overall: *M* = 5.35, *SD* = 1.65. Scale: 9 = *a great deal*, 7 = *quite a bit*, 5 = *some influence*, 3 = *very little*, 1 = *nothing*.

Table 5. Results for t-tests with Effort Expectancy, Self-efficacy, Performance Expectancy and Gender (N = 83)

Consructs	N	M	SD	F	*p*	Effect Size
Effort expectancy						
Females	30	5.71	1.15	6.84*	.01	.30
Males	53	4.85	1.54			
Performance expectancy						
Females	30	5.61	1.27	4.30*	.04	.24
Males	53	4.90	1.57			
Self-efficacy						
Females	30	5.85	1.56	3.99*	.04	.23
Male	53	5.10	1.66			

*Note: *p* < .05.

Table 6. Results for t-tests with Performance Expectancy, Effort Expectancy, and GPA (N = 71)

Constructs	N	M	SD	F	*p*	Effect Size
Performance expectancy						
3.49 to 3.00	32	5.53	.62	3.89*	.03	.17
2.99 to 2.50	39	4.91	1.39			
Effort expectancy						
3.49 to 3.00	32	5.59	.86	3.64*	.04	.14
2.99 to 2.50	39	4.73	1.32			

*Note: *p* < .05.

Conclusions

This study examined undergraduate agricultural leadership students' perspectives of mobile learning. For the construct of performance expectancy, a majority of students agreed that mobile learning would contribute positively to their performance. A majority of students studying critical issues in agriculture agreed that mobile learning is at a level that would be easy to use. The construct of behavioral intention indicates whether or not students intended to use mobile learning in the near future and students agreed they intended to use mobile learning soon. A majority of students believed mobile learning could influence their learning in school.

Females had higher levels of agreement with mobile learning and believed mobile learning would contribute positively to their performance, would be easy to use and believed that mobile learning could positively influence their learning. Students earning higher GPAs believed mobile learning would enhance their performance and be easier to use in courses as compared to students' perceptions with lower GPAs. While the limitations of this study are the dataset and population from a single course, the results do offer insight on factors that influence the mobile learning perceptions and beliefs of students studying critical issues in agriculture.

Implications

The framework for this study was Venkatesh et al. (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) and Bandura's (1977) self-efficacy theory. The UTAUT attempts to explain the factors involved in an individual's behavioral intention to use technology. Findings from this study indicated that students in a course covering critical issues in agricultural leadership were willing and able to utilize mobile learning in an educational context. Students indicated mobile learning could positively influence their performance. Mobile learning allows students to access content for educational purposes at any point in time or place (Peng et al., 2009). With the immediate accessibility of information through a mobile device, students can quickly access pertinent information to support in-class learning resulting in improved classroom participation and productivity. Agricultural leadership students also believed mobile learning is easy to use and stated their intention to use mobile learning soon. Students believed they could develop mobile learning skills and learning to use mobile learning is straightforward.

Self-efficacy theory posits an individual with high self-efficacy will view difficult tasks as something to accomplish rather than avoid (Bandura, 1977). In this study, agricultural leadership students suggested mobile learning could influence their learning. Students with high mobile learning self-efficacy believed mobile learning could be used to accomplish more complex tasks in the classroom. Likewise, students believed the use of mobile learning could motivate them to learn effectively, assist them in learning leadership concepts and help them teach their peers about leadership. The results of this study infer the majority of agricultural leadership students in a critical issues course would persevere and engage in mobile learning successfully.

When it comes to smartphones and tablet devices, students are knowledgeable and their use is becoming a norm in this day and age (Hanson et al., 2011). Students witness their peers, family and faculty using mobile technology in their everyday lives and for various purposes. Self-efficacy is determined not only by personal competence but through critical evaluation from other credible sources, individuals' emotional reactions to a task and direct observation of task completion (Bandura, 1977). Thus, before implementation, agricultural leadership educators should consider student's accessibility to mobile learning devices and their emotional responses when using such technology. Educators should also evaluate their personal mastery and their ability to model mobile learning effectively.

Recommendations

This study expands our understanding of the relationships between students' acceptance of mobile learning and their personal characteristics. Agricultural leadership students indicated their acceptance and readiness for mobile learning use. This supports research that indicated agricultural students' preference for increased use of technology (Rhoades et al., 2008). Practitioners should consider incorporating mobile learning in the classroom but be aware that successful technological incorporation includes feasibility and the alignment with course learning outcomes. Although viewed favorably, Alston et al. (2003) stated that agricultural educators found cost of technology as a potential barrier to the future use of instructional technology. The potential barriers to mobile learning implementation should be evaluated within agricultural leadership programs, respectively. Furthermore, agricultural leadership educators should be aware that differences exist among gender and use of mobile learning. Differences also exist between GPA and mobile learning acceptance. Consideration should be given to the purposeful design of course content using mobile learning for diverse audiences.

Despite potential barriers, agricultural leadership educators should provide higher level learning outcomes to challenge students in their thinking. Mobile learning may be a way to enhance this learning. The use of tablet devices and smartphones can create positive learning environments giving students the opportunity to increase interactions with their classmates and the instructor to collaboratively solve complex problems (Shuler et al., 2010). Several studies aforementioned indicated the importance of leadership development through the use of innovative teaching strategies (Alston and English, 2007; Boyd and Murphrey, 2002; Guthrie, 2009). Instructional delivery methods in agricultural leadership courses impact a student's learning environment and their capacity to develop leadership proficiency. The use of mobile learning in the classroom could be a potential teaching approach in agricultural leadership education preparing students for personal and occupational success.

Given the limitations of the research design, the study should be replicated with a larger sample of agricultural leadership students. Replication with a randomized sample of students can provide additional insights and allow the researcher to generalize to the target population (Fraenkel et al., 2012). While significant differences were found among the variables of gender and GPA, more research should look into why these differences exist. Further research should also be conducted to empirically investigate the impact of mobile learning in the classroom environment and evaluate the readiness and acceptance of mobile learning from the practitioner's perspective. Future research should compare these students' responses with students in other majors at this institution and others across the nation. Additionally, attention should be directed to research the relationship between mobile learning use and leadership skills and competencies. Leadership is an applied discipline (Bass, 1990). Students learn from the ability to directly transfer classroom knowledge to leadership experiences. Mobile learning could be one method agricultural leadership educators can use in connecting students to different contexts of leadership and aid in bringing in examples from outside the classroom.

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