

STUDENTS' APPLICATION OF TEAM LEADERSHIP SKILLS IN AN UNDERGRADUATE AGRICULTURAL LEADERSHIP COURSE WHEN LEARNING EXPERIENTIALLY

Abstract

Undergraduate agricultural leadership education opportunities are prevalent and growing. However, additional attention should be placed on the quality of educational leadership experiences. The purpose of this study was to explore how the context of a learning experience impacts student application of team leadership skills. The findings and implications of this study are reported in three themes: (a) contextual dimensions of educational experiences, (b) agricultural disconnect, and (c) team leadership skill application. Recommendations for practitioners include providing students with real-life leadership skill application experiences, regulating assignments to have agricultural connections, and integrating opportunities for student reflection. Future research should consider questions such as: (a) what other educational leadership experiences may have considerable learning impacts? and (b) what other pedagogical methodologies are useful in teaching agricultural and team leadership education?

Introduction/Literature Review

The creation of public higher education sought to address national challenges and serve the public through education, research, extension, innovation, and discovery (Fogel, 2012). The land-grant institution was established to provide equal opportunity for citizens to earn an education (Cross, 2012). More specifically, programs of agriculture, food, and natural resources have been a primary initiative of the land-grant system and higher education since its inception (Campbell, 1998). Postsecondary agricultural education prepares students for entry into the agricultural workforce (Phipps et al., 2008), and leadership education is integral to the central mission of education in agriculture (Barrick & Garton, 2010).

The United States Department of Labor (n.d.) suggested businesses and employers are calling for leadership skills in areas such as communication, teamwork, collaboration, and problem-solving. Teamwork skills are defined as knowing your role and when to lead, collaborating as a supportive team member, developing positive relationships with colleagues, and open communication (U.S. Department of Labor, n.d.). Brown (2010) emphasized the importance of these skills, stating, "agricultural leadership has never been in higher demand" (p. 6). One method to meet the need for leadership is through professional education courses in agricultural leadership at the undergraduate, post-secondary level (Everett & Raven, 2015; Everett & Raven 2018; Fritz & Brown, 1998; Schumacher & Swan, 1993; Velez et al., 2015). Colleges

of agriculture and programs of agricultural education frequently integrate leadership development courses into undergraduate programs of study (Fritz & Brown, 1998; Schumacher & Swan, 1993).

According to Velez et al. (2015), undergraduate agricultural leadership education opportunities are “prevalent and growing” (p. 124). These opportunities encompass student enrollment in various leadership majors, minors, programs, and courses. While there are growing quantities of leadership courses available to students, is additional attention on the quality of educational leadership experiences needed? Velez et al. (2015) claimed it will be vital for the profession of agricultural education to shift its focus toward leadership pedagogy and providing purposeful experiences that enhance student growth. Similarly, Alexander et al. (2017) concluded the growth of agricultural leadership education was superb; however, focus should be given to the promotion of higher levels of learning through students’ evolution across Bloom’s Taxonomy from understanding to creating.

Lamm et al. (2014) analyzed the use of group projects (project teams) as a pedagogical approach in undergraduate agricultural leadership classes. The authors suggested project teams should be used due to their ability to aid students in developing interpersonal and management skills during experiential learning. Authors also recommended ensuring students have a felt connection to their project work to increase team members’ intrinsic motivation. They found intrinsic motivation could also be increased through the encouragement of autonomous learning, offering students choices, and seeking student feedback (Lamm et al., 2014). Everett and Raven (2018) identified agricultural leadership students’ optimum experience level in an undergraduate course at Michigan State University. In this course, students engaged in experiential learning activities, and their optimum experience level (a point where one is most likely to have control,

attention, curiosity, and intrinsic interest in an activity) was measured. Students who had leadership experiences prior to course enrollment were more likely to achieve an optimal experience level (Everett & Raven, 2018). The authors also reported that experiential learning as a pedagogical approach in leadership courses has instructional value and provides students with opportunities to apply course content (Everett & Raven, 2018).

Coers et al. (2009) found students had positive perceptions toward group and team work after participating in a groups and teams course. Authors recommended continued use of qualitative research methods to explore the impacts of groups and teams courses (Coers et al., 2009). The National Leadership Education Research Agenda’s first priority also emphasized the importance of effective pedagogy: teaching, learning, and curriculum development (Andenoro et al., 2013). This research priority suggests transdisciplinary perspectives for leadership education are necessary to inform teaching and learning associated with leadership. It also suggests the case study approach could illustrate the best practices of leadership educators in formal courses (Andenoro et al., 2013).

At the University of Florida, students in the Department of Agricultural Education and Communication (AEC) can specialize in communication and leadership development (University of Florida, n.d.). Non-AEC students across the college and university are encouraged to take courses in the department to build their leadership skillsets. Courses which aim to accomplish this include topics in effective oral communication, business writing, intercultural communication, moral leadership, fostering innovation through leadership, leadership development, leadership for organizational change, global leadership, leadership in groups and teams, and more (University of Florida, n.d.). While there is an array of leadership courses offered to students, how can the quality of such courses be continuously

maintained? Specifically, in AEC 4434: Communication and Leadership in Groups and Teams, students engage in an experience-based project in which to apply the skills and competencies taught throughout the semester. Therefore, this study aimed to consider the educational value and merit of such a project, and how components of experiential learning, learning contexts, and team leadership theory may influence the quality of student learning.

Conceptual Framework

The overarching theory that guided this study is the theory of experiential learning. Kolb (2015) defined experiential learning as a process by which experiences are transformed into knowledge. Dewey (1938) called for a theory of experience because education is a product of one's experiences. While this may be the case, it is noted, "[this] does not mean that all experiences are genuinely or equally educative" (Dewey, 1938, p. 25). The quality of one's learning depends on the quality of experience one

has (Dewey, 1938). Kolb (1984) explained experiences can be grasped via concrete experience and abstract conceptualization. Experiences are transformed into knowledge through reflective observation and active experimentation (Kolb, 1984, 2015). Kolb purported the two modes of grasping knowledge and transforming knowledge are equally important, and learners should engage with each component for learning to occur.

Theorists concur that experiential learning is a cyclical process in which there is no beginning or endpoint, but rather one's experiences are interconnected and build upon one another (Dewey, 1938; Joplin, 1981; Roberts, 2006).

Experiential Learning Contexts. Roberts (2006) proposed a model to contextualize the experiential learning process. Because learning is often dependent on the context in which it occurs, Roberts (2006) suggested four dimensions to define experiential learning contexts: duration, intended outcome, setting, and level (Figure 1).

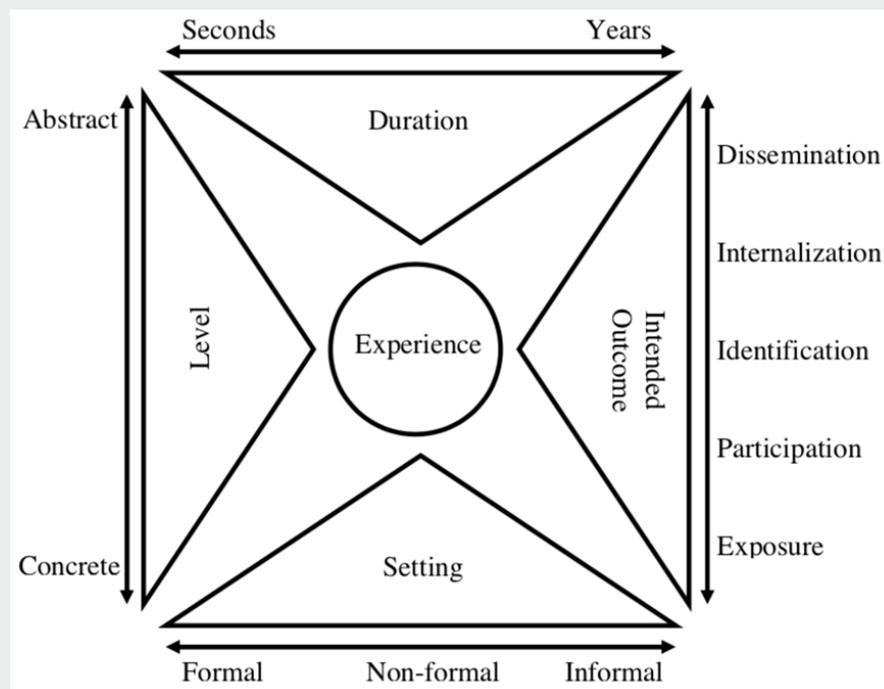


Figure 1. Roberts' (2006) Model of Experiential Learning Contexts

The duration of learning experiences is situated on a continuum of seconds to years. The level of an experience ranges from very concrete, such as a direct, real-life experience, to very abstract, such as non-realistic experiences. The setting of an experience can be classified as formal, non-formal, or informal. Formal settings are those such as classrooms and school. Non-formal settings are less structured activities which occur outside of a school setting. Informal experiences are those that are unplanned and unorganized activities. Lastly, the intended outcome of an experience could be defined as exposure, participation, identification, internalization, or dissemination (Roberts, 2006; Steinaker & Bell, 1979). If the intended outcome is exposure, learners would develop awareness. If learners physically interact with a phenomenon, the intended outcome is participation. An intended outcome of identification would constitute learner involvement with the experience. In internalization, the lifestyle of the learner is changed as a result of the experience. If the learner shared their learning experience with others as an intended outcome, they will have reached dissemination. Each of these four dimensions can be used to define the context of a learning experience (Roberts, 2006). This model is useful for conceptualizing students' learning experiences across contextual dimensions (Heinert & Roberts, 2016).

Team Leadership. Hill (2019) proposed the Hill Model for Team Leadership which emphasizes the desired outcomes of teamwork as a result of team excellence. The model begins with leadership decisions followed by internal and external leadership actions and ends with an outcome of overall team effectiveness. This model emphasizes team leadership as being a result of team-based problem-solving. Leadership should be shared amongst the entire team, which means the actions that occur are monitored by and decided upon by the whole team. The outcome of team effectiveness can be broken down into performance and development. Performance is defined as "task accomplishment" and development is defined as "team maintenance" (Hill, 2019). Teams are ultimately

deemed effective, as defined by Hill (2019), if they (a) get the job done and (b) maintain a cohesive team.

Purpose and Objectives

The purpose of this study was to explore how the context of a learning experience impacts student application of team leadership skills. This study aligns with priority one of the National Leadership Education research agenda (Andenoro et al., 2013) and was guided by two objectives:

1. Contextualize the learning experiences AEC 4434: Communication and Leadership in Groups and Teams students received during their capstone project.
2. Describe students' application of team leadership skills based on the context of their learning experience.

Methodology

The case study approach was selected for this study to gain an in-depth understanding of a case within a real-life setting (Yin, 2009). The scope of this study was a single case within a bounded system and emphasized the evaluation of the pedagogical approaches and contexts best suited for leadership skill application. Therefore, the intrinsic case study approach was best suited for this research (Creswell, 2013; Stake, 1995). A defining feature of a case study, as noted by Creswell (2013), is a description of the case. This particular case was a semester-long, undergraduate, leadership course offered in the College of Agriculture and Life Science at the University of Florida. This case focused on the application of leadership skills when learning experientially. Therefore, this study emphasized the group project assignment that students worked on throughout the entire semester. Each group was tasked with selecting a project that would provide a service or educational component to benefit the local community. Group members were given the freedom to select the context (duration, level, setting, and intended outcome) of their projects which allowed

the context to vary from group to group. Groups were required to submit a project proposal at the beginning of the semester, work on and complete the project during the semester, and submit a project video to summarize their project at the end of the course. Since this project aligned with experiential learning and involved leadership skill application in a team setting, it was the ideal case to study.

Reflexivity. Self-reflexivity allows qualitative researchers to be honest and authentic by identifying authors' strengths and shortcomings (Tracy, 2010). This process of self-auditing includes the researchers sharing their own experiences and biases, but also sharing a critical account of how the research was conducted. Authors should also share their level of involvement with the study and participants for the sake of transparency and sincerity (Tracy, 2010).

Four researchers conducted this study: two faculty members and two doctoral students of agricultural education and communication at the University of Florida. Two of us specialize in agricultural leadership education and two of us specialize in agricultural teacher education. Three of the four agricultural educators have work experience as school-based agricultural educators in three different states. One of the researchers has former work experiences as an academic advisor and program coordinator at the post-secondary level. One of the researchers served as the course instructor and had direct and frequent contact with the participants. One researcher served as a graduate assistant to the course instructor and attended approximately five class sessions over the course of the semester. The two remaining researchers were not involved in course instruction and did not have contact with the students during the semester. Three of the researchers had minimal contact with participants during the focus group data collection time. While there were varying levels of interaction and relationships with the participants, each of the authors attempted to limit their personal biases and understandings through the practice of bracketing (Creswell, 2013; Tufford & Newman, 2010). The bracketing process occurred throughout the study, in which the researchers worked to filter

their biases and preconceptions of the phenomenon being studied. A primary method of bracketing utilized in this study was frequent reflection by the researchers about their engagement with the data (Tufford & Newman, 2010).

Participants. Purposeful or purposive sampling is recommended in case study research due to the need to select a specific case in which to study (Creswell, 2013; Miles et al., 2020). All participants were enrolled in the Fall 2019 section of AEC 4434: Communication and Leadership in Groups and Teams at the University of Florida. This course focuses on the development of leadership and communication skills within the context of groups and teams. This introductory course lends itself to experiential learning and offers key topics such as effective group and team practices, processes of teams, group and team member relationships, and improving team performance. Therefore, participants (N = 28) were purposefully selected due to their novice status and the many contexts in which they would be learning and applying leadership skills. Additionally, this bounded system is reflective of similar courses of agricultural leadership which are taught nationally within departments and colleges of agricultural sciences and education.

A majority of the participants identified as female (n = 22), seniors (n = 22), and studying in the College of Agriculture and Life Sciences (n = 18). A variety of majors were represented including agricultural education and communication (n = 8), family, youth, and community science (n = 5), business (n = 4), and liberal arts and sciences (n = 4), among others. The instructor for the course assigned students to teams. Four teams consisted of five members, with the remaining two teams composed of four members. This aligns with research indicating ideal team size is four to eight members (Griffith & Dunham, 2015; Laughlin, et al., 2006).

Data Sources, Collection, and Analysis Strategies.

High quality case studies present an in-depth understanding of the phenomenon as illustrated by numerous sources of data (Creswell, 2013). Data were a product of regularly scheduled course learning activities. In accordance with IRB-approved protocol, all students were asked to consent to the inclusion of their data after the semester concluded and final grades had been submitted. The primary source of data for this study were focus group interviews at the completion of the semester. A focus group is generally composed of a small group of people who are prompted by an interviewer to answer questions about a specific topic in an open environment (Rossman & Rallis, 2003). These focus groups were facilitated by three of the researchers and three additional graduate students of agricultural education and communication. The researcher who is also the instructor of the course did not aid in conducting focus groups due to her close relationship to the participants.

The students were divided into six focus groups for two rounds of questioning which lasted approximately 35 minutes each. Focus groups were conducted at the end of the semester after all students' projects and assignments were completed. The questions were developed based on the conceptual framework and objectives which guided this study. The focus group facilitators met beforehand to discuss the question guide, and each facilitator adhered closely to the question guide, asking probing questions as necessary. Audio recordings were transcribed by an external transcription service before analysis and coding.

The second source of data included pre-project proposals that were submitted by each project group. Documents can be collected and included within a data set, especially when they support and connect with other data sources such as participant interviews (Bogdan & Biklen, 1998; Creswell, 2013). In these written proposals, students described the specifics of their project including their project idea, the methods for implementation, their tentative timeline and supplies, and group member responsibilities. The project proposals were important supportive

data in defining the context of each group's learning experience and to determine the initial project goals of the group.

The third and final source of data for this study were the groups' project videos. The use of video recording as a source of data is an unobtrusive method of data collection that can produce rich data (Bogdan & Biklen, 1998). As part of their group project, groups were instructed to assemble a video to summarize their project. Since the size and scope of group projects varied, these videos allowed the researchers to experience the groups' various projects since it was not always feasible to be physically present for their projects.

Creswell (2013) suggested prior to coding, researchers should read and familiarize themselves with their data to a point in which they can reflect upon its meaning and seek multiple forms of evidence to support emerging categories and themes. Thus, the focus group transcripts, proposal documents, and project videos were reviewed thoroughly by the researchers. The course syllabus and objectives were also used as a frame of reference when analyzing the team-leadership skills applied by participants. The constant comparative method was used for coding the data. Creswell (2013) defined this method as the, "process of taking information from data collection and comparing it to emerging categories" (p. 86). A round of inductive open coding was conducted independently by two of the researchers who then met to negotiate and agree upon the coding categories (Creswell 2013). This was followed by an axial coding process in which the research team situated data onto a category matrix that aligned with the theoretical elements of this study using a Microsoft Excel document. Ultimately, three themes emerged from the data and were agreed upon by the researchers. In accordance with IRB approved protocol, confidentiality of participants is maintained throughout this manuscript.

Quality of Study. Lincoln and Guba (1985) recommended studies should have credibility

and transferability for rigor and trustworthiness. Credibility is defined by Tracy (2010) as, "the trustworthiness, verisimilitude, and plausibility of the research findings" (p. 842). The first method in which we aimed to establish credibility is through providing a thick and rich description of the data (Tracy, 2010). We have attempted to immerse the reader into the case and provide supportive quotes from participants to better tell the story of what occurred. Additionally, credibility was achieved by using multiple data sources, investigators, and theories allowing for triangulation (Creswell, 2013). Transferability has been reached when readers feel they can connect what has occurred with their own experiences (Tracy, 2010). Stake (1978) discussed how it is idiotic to generalize because, all too often, generalization leads to oversimplification. Rather, a naturalistic generalization (transferability) is preferred with case study research because readers can connect vicariously through the experiences of others. The transferability of this study is achieved by discussing emergent themes which are theoretical and practical in nature (Tracy, 2010).

Limitations. Since two of the researchers served as an instructor and a graduate assistant to the participants, students could have given responses in their written documents or interviews they felt would be desired, and this was identified as a limitation of this study. A second limitation to this study would be the limited interview time during the focus groups. Focus groups were conducted during a regularly scheduled class day which was two hours in length. While participants were not rushed nor had their response/discussion time shortened in any way, it is possible that longer interviews could have provided a more in-depth body of data.

Results

The findings and implications of this study are reported in three themes. The first theme is the contextual dimensions of educational experiences. This theme aligns with Roberts' (2006) model of experiential learning contexts, and had four sub-themes: level,

duration, setting, and intended outcome. The second theme which arose is agricultural disconnect. This theme emerged as a result of most groups selecting capstone projects that were unrelated to agriculture. The final theme, team leadership skills application, aligns with the purpose and objectives of the course and with Hill's (2019) model for team leadership. There were three sub-themes which emerged: team development, communication, and conflict management.

Contextual Dimensions of Educational Experiences. Objective one of this study was to contextualize the learning experiences students received during the course capstone project. Each group's pre-project proposals, project videos, and in-depth interviews were analyzed to determine the contextual dimensions prescribed by Roberts (2006). These project elements were used to compare each group project to Roberts' (2006) model to determine the level within each contextual dimension (level, duration, setting, and intended outcome) the project was most aligned. A summary of these contextual dimensions is presented in Table 1.

Table 1

Contextual Dimensions of Undergraduate Leadership Students' Educational Experiences During a Course Group Capstone Project

Group/Experience	Level	Duration	Setting	Intended Outcome
Group 1 – Implement a service project for a local charity group	Concrete	Weeks	Non-formal	Exposure / Participation
Group 2 – Host a sports tournament for campus international students	Concrete	Months	Non-formal	Identification
Group 3 – Conduct an educational day trip to experience historical landmarks	Abstract- Concrete	Weeks / Months	Non-formal	Participation
Group 4 – Create and distribute a mental and physical health survey for campus students	Abstract- Concrete	Days / Weeks	Non-formal	Identification
Group 5 – Conduct a fundraiser for a local high school marching band	Concrete	Weeks	Non-formal	Participation / Identification
Group 6 – Design and implement an agricultural lesson for second graders at a local school	Concrete	Months	Formal and non-formal	Internalization / Dissemination

The first sub-theme identified was the level of students' experiences along a continuum from abstract to concrete. Most groups selected a concrete experience for their capstone project. Concrete experiences allowed students to interact directly with a phenomenon. When explaining the scope of their project, a Group Three Participant stated:

...we actually planned a trip that we went on, and had travel time, and had to pick a date that worked for all of us. I think working together-wise, it was a lot, because we couldn't really do anything individually beyond the planning process.

During concrete experiences, students frequently interacted with their group mates and other stakeholders. Throughout the Group Five project video, participants discussed the importance of communication with one another as a team. Participants also shared the variety of stakeholders they interacted with to achieve their project goals.

This included interaction with members of the local high school, their school marching band, their local community, and faculty and students from the University of Florida.

In groups who selected projects that were defined as abstract-concrete, it was noted participants met in person less frequently. Often, methods of virtual connection were used to communicate. "We generally met through Google Hangout. That's where we held the majority of our meetings. That was just the easiest place to do it, considering everybody's schedules. We also communicated a lot through our group chat in GroupMe" [Group Four Participant].

The duration of groups' experiences was the second sub-theme that aligned with Roberts' (2006) model of experiential learning contexts. Groups' experiences ranged on a continuum from days to months. While groups were expected to work on their selected project throughout the semester, they oversaw their

their own timeline. Most groups met multiple times in the weeks leading up to the execution of their projects. A Group Two Participant explained the timeline of their project in the following statement:

I think we began as soon as she described the project, and we started thinking about it, and then we completed it putting on the three v. three soccer tournament at the end of October. Then from there, we just worked on the video until this date. Throughout that, what was that, two months we were probably working on it.

While the project planning phases for groups lasted weeks, the actual implementation of most projects was relatively short ranging from a few hours to a couple of days. Because of this, defining the duration of groups' experiences was challenging. An example of this was shared by a Group Three Participant who said:

All of our planning took place beforehand, and then our actual project was—we drove to St. Augustine together, and then spent the day at—we had five stops, so we just went to different historical sites in St. Augustine, and then drove back.

The third sub-theme was the setting of student's experiences. A non-formal learning setting is one which occurs outside of a formal, classroom-style learning environment (Roberts, 2006). The capstone project in this course was designed to be implemented outside of regularly scheduled class time; therefore, the setting for all groups was defined as non-formal. Non-formal settings have defined goals and can include experiences such as service projects, outdoor programs, and internships (Roberts, 2006). When discussing their community service project, a Group One Participant stated:

I think at the end of the day, our biggest goal was to help people, and this was a kind of smaller scale where we could do that. This was one of the only events Ronald McDonald House would let us do, kind of. It was a limit three to five people...

This was one of the main ones that they had available for us to actually execute at the house. That was our thing. We wanted to be at the house and kind of have some interaction, even though it wasn't many.

The project conducted by Group Six was defined as both formal and non-formal. While the students in this group were participating in a non-formal learning setting, the project they conducted was to provide a formal learning experience for others. A formal learning experience occurs in a classroom or laboratory (Roberts, 2006). When reflecting on their experience, a Group Six Participant shared the following statement:

We did it in a STEM lab, and we had a PowerPoint presentation and stuff like that. The kids were really loud and stuff, but they were pretty engaged. A lot of them learned from it 'cause most of them thought that their food originally came from just a grocery store. By the end of it, all of them understood what we were sayin'.

The fourth and final sub-theme was the intended outcome of the group projects. There were a wide range of outcomes achieved by the six groups on a continuum from exposure to dissemination. At the exposure level, students are simply introduced to an experience. Moving further along the continuum, if students interact with a phenomenon and recall concepts, then they have achieved participation (Roberts, 2006; Steinaker & Bell, 1979). The project conducted by Group One reached both exposure and participation levels. This was largely due to the way in which group members shared responsibilities. Some group members were responsible for planning and preparation and others were responsible for executing the project. A Group One Participant stated:

...we decided to split that role up where the two of us were financially responsible for getting all the ingredients, paying for all that, figuring out how much we need, and then delivering it to the three of us

who were gonna bake.

Groups Two, Four, and Five achieved identification. Steinaker & Bell (1979) defined identification as directed field work in which learners retrieve data and information. This is well-illustrated by Group Four's project. "It was a 10-question survey that addressed the—just asking about the mental and physical health of UF students. We created the survey...We shared it with our other classes and our student organizations. We accumulated 160 responses" [Group Four Participant]. Group Six participants achieved levels of internalization and dissemination. Internalization is defined as utilizing or applying skills in new contexts. Further, students will have achieved dissemination when they explain their experiences and knowledge to others (Steinaker & Bell, 1979). The project conducted by Group Six involved the creation of an agricultural lesson plan (internalization) which was later taught to second grade students (dissemination). Dissemination would also have been achieved in this group through sharing the lesson and materials with the local school's teachers.

Agricultural Disconnect. The second theme that emerged in this study was agricultural disconnect. This undergraduate team leadership course is taught within a College of Agriculture and Life Sciences, and 64% (n = 18) of the students enrolled in the course were from the College of Agriculture and Life Sciences. However, it was noted that the focus of only one group project was directly related to agriculture. When discussing the decision to select their project, a Group One Participant stated, "I think all of us, when we were coming up with ideas and stuff, it was all community service based. It was really, every single idea we came up with was helping people". When sharing the overall goal of their project, a Group Two Participant stated it was, "to try to create a community and just a welcoming environment for international students to have fun playing games with a different type of people in a different type of setting." In their post-project video, Group Three discussed the historical sites they visited such as a church, an old schoolhouse, a local (non-agricultural) college, and a lighthouse. While educational in nature, none of

these historic sites had an agricultural emphasis.

Of the six groups who participated, only one group, Group Six, had an agricultural connection to their project. In their post-project video, a Group Six Participant discussed the desire to increase agricultural literacy via their project. They administered a pre-test to the elementary students and found only 50% of the class correctly identified farms as the source of food.

At the end of the workshop, we posed the question again where does your food come from, and, um, all but one child really confidently answered that it came from the farm and the other one explained that it came from the farm and then the grocery store and then made it to his house [Group Six Post-Project Video, 1:32].

Team Leadership Skill Application. The third and final theme in this study was team leadership skill application. While the contextual dimensions of group capstone projects may have varied, all groups were able to apply team leadership skills learned in class during their project experience. There were three major areas of team leadership skill application discussed by participants which are illuminated in three sub-themes: team development, communication, and conflict management. Interestingly, these three areas of skill application aligned directly with the course objectives listed in the syllabus. The first sub-theme, team development, emerged as a result of all six groups discussing their own team development over the course of the project and relating it to Tuckman and Jensen's (1977) five stages of group development. A Group Two Participant stated:

I think we definitely went through all of the stages of development that we talked about with the forming, the norming. It was cool to go through that without thinking about it, but then looking back on it and seeing how we really did apply what we learned to our actual team development.

In students' focus group interviews and post-project videos, students reflected upon how their team aligned with the developmental stages. In the post-project video by Group Six, a participant shared "One of the major, uh, points of this class were Tuckman's five stages of team development and it was easy to analyze within our group because we followed each of the stages pretty easily and effectively" [Group Six Post-Project Video, 2:50].

The second sub theme that emerged was communication. In all six groups, communication skills were discussed as being a key component to their overall team success. In some cases, communication with fellow teammates was a challenge that needed to be worked through. For example, a Group Four Participant explained, "A lot of the challenges that we faced came just from communication and just making sure that everybody had clarity on the decisions that were being made and the roles and responsibilities that people had." However, it was noted that this educational experience often provided groups with the chance to overcome challenges by applying the team leadership skills learned in class. A Group One Participant shared:

I think one of the challenges was—actually in the beginning was communication. It was. [Laughter] I think we used what we learned about communication and just directly solving the issue to kind of overcome it, and also just knowing our strengths and weaknesses.

The third emergent sub-theme identified was conflict management. All six of the groups discussed conflicts which arose during the project, and how they utilized conflict management strategies to overcome conflict. A Group Four Participant explained how they ran into conflict early on, stating, "We just had a lot of assumptions within our team, which created conflict in the beginning. Then we started to get to know each other, and it smoothed out towards the end." However, Hill (2019) would posit effective team leadership is being able to get the job done while simultaneously maintaining a cohesive team. This capstone project facilitated groups though an

experience where conflicts arose, and students had to overcome them. When discussing their challenges, a Group One Participant stated:

I also definitely think conflict management. Not that we had a lot of conflict. It was just that when someone said something that was a good idea that maybe not be as practical, it was like, how do approach that while still validating that idea without being like, "That won't work." I think, again, that kind of ties into communication, but just communicating honestly and openly without kind of attacking the person individually.

Conclusions, Recommendations, and Discussion

The purpose of this research study was practical in nature: to consider the educational value and merit of the group capstone project experience, and how it influenced the quality of student learning. Therefore, an overarching conclusion of this study was this capstone project allowed students to apply the team leadership skills taught in class in real-life contexts. When analyzing the three subthemes of team leadership skill applications which emerged from students' projects, they align with Hill's (2019) model which emphasizes team performance, team development, and team-based problem solving. Similar to Everett and Raven (2018), this study provided evidence that experiential learning can be an effective pedagogical approach in agricultural leadership education. If a major purpose of education is to transfer knowledge to practical settings, a capstone experience which allows students to apply their knowledge and skills should be valued by educators. In Kolb's (1984, 2015) model of experiential learning, active experimentation is fundamental to transferring experiences into knowledge. Therefore, those seeking to provide truly educative experiences to their students should include opportunities for real-life application.

Congruent with Lamm et al. (2014), this experience

provided students with autonomous learning and student choice. As a result of this study, we agree that providing students with learning autonomy and choices is imperative, especially in a capstone project such as this one. However, it is recommended that similar courses taught within colleges of agriculture should regulate the scope of projects and assignments to have agricultural connections. It is further recommended that future research should be conducted to investigate team leadership needs within the agricultural industry to allow leadership educators to align courses to meet such needs.

Two data sources analyzed in this study included students' focus group interviews and their post-project videos, both of which were forms of student reflection practices. Reflecting on one's experiences is integral to the experiential learning process (Kolb, 2015; Roberts, 2006). Those wishing to provide impactful learning experiences should integrate methods of student reflection into their course design. Furthermore, while the scope of this study focused on group learning and reflection, future studies should be conducted that emphasize individual students' perspectives and reflections on their participation and their teammates' participation.

Lastly, future research should consider what experiences are most impactful for student learning. Since this project was just one assignment in the course, what other educational leadership experiences may have considerable learning impacts? Additionally, while experiential learning proved to be a valuable approach in this course, what other pedagogical methodologies are useful in teaching agricultural and team leadership education?

Research that informs pedagogical practices within leadership education is important. This study evidences that experiential learning is an impactful pedagogical practice when implementing team leadership curriculum. Intentionality and careful consideration should be exercised by leadership educators to increase the quality of educational experiences provided to students which emulate career and industry leadership needs.

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