

“Roll Up Your Sleeves and Get to Work”: Understanding Undergraduate Leadership Experiences in Student Organizations

Abstract

Leaders are needed to address the agriculture industry’s increasingly complex and interconnected problems. Colleges of agriculture who offer leadership development coursework and degree programs often support student organizations to provide critical everyday opportunities for students to practice leadership in an authentic environment. This qualitative case study examined undergraduate students’ perceptions of, and experience with, leadership in student organizations in one Midwestern college of agriculture. Results indicated that students participated in student organizations to find students with similar interests, connect with potential employers, and improve their own employability. Results also indicated that leadership was typically conflated with position, and that industrial approaches to leadership were most common. This study has implications for administrators and faculty responsible for advising student organizations, and, more broadly, for leadership development programs in colleges of agriculture.

Keywords: student organizations, leadership education, agricultural leadership, ecological paradigm, leadership skills, industrial leadership paradigm

Introduction

Colleges of agriculture (COAs) have long been engaged in leadership development efforts that prepare graduates for the agriculture classroom, agriculture industry, and rural communities (Astin, 1996; Boatman, 1999; Weeks & Weeks, 2020). Indeed, COAs play an increasingly important role in developing tomorrow’s leaders. Allen et al. wrote, “There is a need for strong leaders in the agricultural industry, and organizations are looking for college of agriculture graduates who demonstrate strong leadership abilities” (p. 56). This is critical because the agricultural industry must respond to rapid changes, and leaders play an integral role in facilitating that adaptation (National Research Council, 2009).

Not surprisingly, employers increasingly expect university graduates to possess leadership skills (Powell & Agnew, 2007). Among the skills and competencies most valued by employers are those typically addressed in agricultural leadership undergraduate curriculum, including the following: leadership, problem solving, team skills, communications, decision-making skills, professionalism, and critical thinking (Crawford & Fink, 2011; National Association of Colleges and Employers [NACE], 2021; Weeks & Weeks, 2020). Recently, a 2020 report by the Association of Public & Land-Grant Universities (APLU) confirmed these skills continue to be critical to employers in the agriculture sector when hiring college graduates (Crawford & Fink, 2020a).

The collegiate environment is ideal for leadership development, with its many immersive opportunities to participate in programs, organizations, and service-learning projects (Ewing et al., 2009). COAs are “in a perfect position to foster the next generation of leaders and professionals to address these challenges...” and should provide students with the opportunity to learn about agriculture and its challenges, as well as provide opportunities to engage in leadership (National Research Council, 2009). The popularity and longevity of these leadership development efforts can be viewed as evidence of the continued need for leadership development in graduates and, ultimately, the importance of leadership to society (Engbers, 2006; Ewing et al., 2009). Marcketti

and Kadalph concluded, “The importance of leadership education for today’s undergraduates cannot be underestimated” (2010, p. 131).

Student organizations are one important venue where we engage in leadership development in COAs. Higher education has long recognized that extracurricular activities are a viable strategy for attaining learning outcomes like leadership development—not simply a social activity (Birkenholz & Schumacher, 1994; Ewing et al., 2009; Foreman & Retallick, 2013; Layfield et al., 2000; Rubin et al., 2002). Layfield and colleagues (2000) found that one of the most important aspects of developing leadership skills is the opportunity for students to practice leadership in their everyday lives and recommends college students be provided with opportunities for involvement in student and other community organizations.

Many colleges tout these informal opportunities (i.e., student clubs and organizations) as a place to cultivate students’ leadership capabilities, and research seems support those claims (Boatman, 1999; Ewing et al., 2009). Students who participate in co-curricular opportunities on college campuses have a “clear advantage over students who choose not to engage in these means of leadership development” (Rosch & Coers, 2013, p. 84). Moreover, the leadership skills and abilities exhibited by members of collegiate organizations may be perceived as higher than those of non-members (Ewing et al., 2009). Graduates have also cited their own experiences in student organizations as crucial to their personal and professional growth (Birkenholz & Schumacher, 1994; Suvedi & Heyboer, 2004).

However, despite sustained effort among COAs to prepare graduates with leadership skills to be both competitive in the job market and to address complex problems in the agriculture industry, employers across many sectors, including agriculture, report a persistent and increasing gap between the content and skills taught in colleges and the needs of industry (Finch et al., 2013). Employers report hiring recent graduates who are ill prepared and require investment by the company to improve their workplace readiness (Casner-Lotto et al., 2009; Crawford & Fink, 2020b). This is particularly the case for applied (soft) skills, leadership among them.

Recently, the same APLU report described earlier (Crawford et al., 2020b), which found leadership skills to be valued by employers, also identified significant gaps between levels of graduate preparedness in certain key skills and the levels of importance employers place on those skills. Often, the skills employers report as being highly important in a new hire are precisely the skills graduates are not prepared in. The report highlighted 11 key importance-preparedness gaps, including gaps in the following leadership-related skills typically addressed in agricultural leadership development efforts: (a) navigating change and ambiguity; (b) recognizing and dealing constructively with conflict; (c) realizing the effects of decisions; (d) identifying and analyzing problems; and (f) communicating accurately and concisely (Crawford & Fink, 2020b).

Little is known about how—or how well—collegiate student organizations instill these, and other, leadership skills. How high school-level student organizations engage in leadership development has been studied extensively (e.g., Anderson et al., 2012; Ball et al., 2001; Connors & Swan, 2006; Hastings et al., 2011; Park & Dyer, 2010); however, “surprisingly little” (von Stein & Ball, 2008, p. 96) research has been conducted on students’ experiences in student organizations in colleges of agriculture. Research suggests there are benefits to being involved in collegiate student organizations, but which specific elements of that involvement contribute to leadership development are unknown (von Stein & Ball, 2008).

This leads us to question the nature of leadership development experiences in colleges of agriculture—specifically those related to student involvement in student organizations. If the COA student organization is considered the perfect environment for developing leadership skills in

graduates of COAs, but the graduates we are developing are generally considered lacking in key leadership-related skills, we believe it important to investigate this environment in which we so often seek to develop leadership in college students. Our limited understanding of students' experiences in student organizations and their perceived impact on students' leadership development prevents us from making meaningful changes, or additions, to the student organization experience in order to better prepare tomorrow's leaders to solve complex problems.

Literature Review

There are many potential explanations for the deficiency in leadership development among graduates of COAs described above. However, there are at least two that relate to this study, and which will be relevant to understanding its findings. The first explanation centers on how COAs conceptualize and teach leadership, and how that conceptualization is mismatched with those skills theoretically needed today. Many leadership programs are rooted in an industrial paradigm of leadership and tend to focus on preparing positional, romantic, heroic leaders, which some leadership scholars in the broader literature consider antithetical to solving the complex, interdependent problems that we tend to face today in agriculture and natural resources (Allen et al., 1999; Cletzer & Kaufman, 2018; Rost, 1993a, 1993b; Rost & Barker, 2000; Western, 2019; Wielkiewicz & Stelzner, 2005, 2010). In a nationwide study of 100 agricultural leadership course syllabi representing 44% of all agricultural leadership courses, 89% of courses analyzed focus exclusively on the industrial paradigm's leadership theories and concepts, which conceive of leadership as positional, romantic, and heroic (Cletzer et al., 2022). This could help explain the deficiency in navigating change and ambiguity, as well as identifying and analyzing problems (Crawford, 2020b).

Similarly, in a nationwide study of 55 colleges and universities, students in colleges of agriculture (COAs) were found to participate in leadership opportunities at rates similar to their peers across campus (Rosch & Coers, 2013). However, COA students engaged in socio-cultural discussions less than other students, and “the gap may be potentially large” (Rosch & Coers, 2013, p. 91). Socio-cultural discussion means engaging peers on topics of personal and societal differences (e.g., values, beliefs, identities, etc.), which is an important predictor of post-industrial/ecological leadership ability. Additionally, COA students scored lower than their peers on self-perceived tests of cognitive complexity—that is, “the degree to which they reported feeling effective in connecting divergent information and engaging in areas in which they knew little but would like to learn” (Rosch & Coers, 2013, p. 91). This could help explain the deficiencies in recognizing and dealing constructively with conflict and identifying and analyzing problems.

A second, perhaps complementary, explanation centers on the delivery method of student clubs and organizations themselves. For instance, the student organization experience might simply be disjointed and poorly planned. Dugan et al. (2007) wrote rhetorically, “Is leadership development a convenient byproduct of a college education left to chance and student self-selection, or is it an outcome that should be purposefully and systematically cultivated?” (p. 74). Similarly, Ewing et al. (2009), writing in the context of COA student organizations, noted that advisors tasked with developing these leadership skills and abilities are quite likely not thinking explicitly about leadership development when advising their clubs, which can result in less than desirable leadership outcomes. Moreover, mere participation in a student organization, even in a position of so-called leadership (e.g., being an officer), does not necessarily result in leadership development. Rosch and Coers (2013) describe the task-oriented nature of many student organizations:

Both authors have served in advisory roles to student organizations in the past and know the pressure that students may feel at times to “get through the agenda.” Such meetings

may provide a satisfactory level of task productivity yet not build the type of social atmosphere necessary for authentic engagement in a peer setting...moreover, it may leave students without the opportunity to practice the skills they will need to collaborate with or supervise diverse others in less-structured environments. (p. 91)

Furthermore, in their study of 99 institutions' leadership programs, Dugan et al. (2011) conclude that delivery method (e.g., student organizations) is much less important than the pedagogical strategies embedded in the delivery method (e.g., mentoring relationships, conversations about and across differences).

Therefore, it is likely safe to conclude that participation in student organizations is not inherently beneficial to leadership development despite being in students' "everyday lives" (Layfield et al., 2000, p. 62). Participation, holding office, or task productivity in the context of a student organization does not automatically result in leadership development, much less the type of leadership that is, at least theoretically, appropriate to solving 21st century complex problems. Finally, the leadership content taught matters, as do the pedagogical strategies employed, and there is evidence that student organization advisors are also not necessarily focused on leadership development, which can result in less than desirable leadership outcomes.

Theoretical Framework

This study utilizes the Leadership Identity Development (LID) model as a means of describing the leadership happening in student organizations (Komives et al., 2005; Komives et al., 2006). The LID model was developed through a grounded theory qualitative study of college students' perceptions of their own leadership development. It delineates six stages that would-be leaders might cycle through during their lifetime. Stage 1 is *Awareness*. In this stage, individuals gradually become aware that leadership is a phenomenon, but it is generally understood as something that others do. Stage 2, *Exploration/Engagement*, occurs when individuals seek to become intentionally involved in group activities, such as clubs or sports; they become active followers or members in a group, trying out new roles and examining the actions of positional leaders. Stage 3, *Leader Identified*, is a critical point in leadership development, particularly for high school and college students. Individuals in this stage will explore new roles, take on greater responsibility, and begin to recognize their own leadership potential. Indicators of stage 3 are: (a) seeing leadership as being tantamount to position, (b) dichotomous leader-follower roles, and (c) authoritarian approaches to leadership. LID stage 3 is in line with traditional definitions of leadership dating to the 1900s where leadership might be described as "a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse, 2013, p. 3). This understanding of leadership is rooted in what Allen et al. (1998) call an industrial, or mechanistic, paradigm, which focuses on the preeminence of individual positional leaders and the machine-like qualities of organizations. Those operating from an industrial paradigm of leadership are typically concerned with greater productivity and efficiency in guiding people to complete tasks. However, this paradigm has been increasingly viewed as untenable in a complex, interdependent, and interconnected world. Looking to a single leader, or even a small, elite group of leaders to provide *the leadership* for an organization, essentially, reduces the bandwidth needed for surmounting the immense, complex problems we face in the 21st century and makes adaptation and complex problem solving in a given human system less likely to occur (Western, 2019).

Stage 4, *Leader Differentiated*, represents a major shift in leadership development, not only for the individual, but also for leadership studies and leadership development efforts. In contrast to stage 3, indicators of stage 4 include the following: (a) belief that leadership can and should come from anywhere in the group and be non-positional; (b) seeks to engage a wide variety of group members, positional or non-positional, to accomplish group tasks; and (c) employs more

democratic leadership styles. This understanding of leadership is rooted in what scholars have termed the ecological paradigm of leadership (Allen et al., 1998; Western, 2019). In the ecological paradigm, leadership is no longer understood as the actions or *properties* of an individual leader (e.g., skills or traits) or holding a position of authority, but, rather, a collective *process* that involves both leaders and followers co-creating leadership inside a complex adaptive system. Under this paradigm, there is, of course, still individual positional leaders, but their role is to “assist in the emergence of leadership, rather than creating change through executive orders and decision” (Wielkiewicz & Stelzner, 2005, p. 331). It is particularly well-suited for solving complex problems because in this paradigm, positional leaders are expected to act as a facilitator to engage the talent, creativity, and expertise of all actors in a system, rather than selling their singular vision to solve problems. Ecological forms of leadership are still concerned with task productivity, but they are also concerned with addressing complex problems and helping organizations adapt in an increasingly fast-changing world.

Stage 5, *Generativity*, is typified by individuals accepting responsibility for the development of others and self, and the responsibility for sustaining the organization by developing a leadership pipeline. Finally, in stage 6, *Integration/Synthesis*, individuals recognize and embrace the following: leadership is a lifelong developmental process; organizations exist in complex interconnected ecosystems; and the need to leave things better than they found them (Komives et al., 2006).

Purpose & Objectives

The National Research Agenda (Roberts et al., 2016) calls on researchers to conduct studies related to several priority areas. Research Priority 5, efficient and effective agricultural education programs, calls for “accurate and reliable data that describes the quality and impact of education programs...” (Roberts et al., 2016, p. 10). This includes programs to develop 21st century skills in graduates, such as leadership and teamwork (Crawford et al., 2020a). The purpose of this case study is to explore the University of Missouri’s (Mizzou) College of Agriculture, Food and Natural Resources’ (CAFNR) undergraduate students’ perceptions about, and engagement in, leadership through student organizations. The study was guided by the following objectives:

1. Describe CAFNR’s undergraduate students’ participation and engagement in student organizations.
2. Describe CAFNR’s undergraduate students’ perceptions of their leadership experiences in student organizations according to the Leader Identity Development model.

Narratives from CAFNR students involved in this study will be valuable in helping educators and administrators gain understanding of the phenomenon of undergraduate leadership experiences within student organizations. This study may also provide perspectives about the leadership experiences of undergraduates in student clubs and organizations in other, similar colleges of agriculture. This would help to fill the knowledge gap identified by Ewing et al. (2009) and von Stein & Ball (2008), as well as aid colleges of agriculture in better preparing graduates to address complex problems (Andenoro et al., 2016) through the highly impactful learning experience of student organization participation (Layfield et al., 2000).

Methods

This qualitative single intrinsic case study stems from a social constructivist interpretive framework, which states that meaning is constructed through interactions with other people, the world, and interpretations of those shared interactions (Berger & Luckman, 1966). As researchers and authors, it is important for us to unpack the philosophical beliefs that form the foundation of

this framework. From an ontological perspective, social constructivism is built on the belief that multiple realities are constructed through those interactions and experiences. This study relied on co-construction of reality between the researchers and participants. Additionally, participants' individual values were honored. A literary style of writing using rich, thick description was used to paint the multiple (sometimes contrasting) realities and values of the study participants (Creswell, 2013).

While some may view the open-endedness of this case study as a strength, those with a more Positivist perspective may fault the methodological approach for lack of absolute truth and conclusions (Willis, 2007). To help account for this limitation, it is critical that we position ourselves as authors and researchers. Our five-member research team are faculty members of Agricultural Education & Leadership at the University of Missouri's College of Agriculture, Food and Natural Resources. Three of the team members received their undergraduate and/or graduate degrees from Mizzou. Each member of the research team is involved in teaching CAFNR undergraduate students. Two of the four are undergraduate advisors, and four advise CAFNR clubs or organizations.

Research Design

Case study research allows for detailed, rich description of a case due to triangulation of multiple forms of data (Creswell & Poth, 2018). A single intrinsic case study approach was used to explore a bounded system (CAFNR clubs and organizations at Mizzou) over time through multiple in-depth data collection methods (Creswell, 2013). The intrinsic case study design was utilized since we were interested in exploring and detailing the unique situation of participation, engagement, and leadership in CAFNR clubs and organizations. We were interested in teasing out the stories of the case (Stake, 1995) to gain a better understanding of the undergraduate experience of leadership in CAFNR clubs and organizations.

Data Sources and Collection

We collected the following three unique kinds of data to ensure the potential for data triangulation: (a) focus group interviews, (b) observations, and (c) existing documents. Specifically, data were collected through the following: three initial semi-structured focus group interviews; two follow-up semi-structured focus group interviews; observations of a club and activity enrollment fair in early fall; observations of two student council meetings in mid fall and late fall; and document analysis of the CAFNR website, social media posts, and flyers about organizational events.

Focus Group Interviews

Researchers conducted two rounds of semi-structured focus group interviews with primarily officers in CAFNR organizations who attended two fall CAFNR Student Council meetings. Focus groups allow participants to hear each other's responses and add their own comments to those responses (Patton, 2002). The first round included three focus groups, each comprised of 10-12 undergraduate students. The second round included two focus groups, each comprised of 7-10 undergraduate participants. Questions for the focus groups included background questions, experience and behavior questions, feeling questions, hypothetical questions, ideal position questions, and opinion and value questions (Patton, 2002). The second round of focus group interviews was designed to obtain deeper insight about issues that arose during the first round of interviews, observations, and document analysis. Each focus group interview was 25-35 minutes in length.

Observations

A total of six hours of observations were conducted at three different events. These observations helped to further inform key concepts that surfaced during document analysis and initial focus group interviews (Stake, 1995).

Two members of the research team observed the CAFNR Fall Round-Up, which is held annually in September. The purpose of the event is to provide an opportunity for all students to come together in one place and showcase their respective CAFNR organizations. During this observation, we were able to observe both positional club leaders (i.e., officers) as well as regular members involved in this recruitment event. Next, the same researchers observed two CAFNR Student Council business meetings; the first was held in October, and the second in November. All student organizations within CAFNR are required to send two representatives to the Student Council meetings. Typically, this role is carried out by an officer, and that officer will attend all meetings. Though, the officer in question is not always a president or vice president; often, “Student Council Representative,” is an elected position within student organizations, and many clubs pick who will attend on an ad hoc basis. By recruiting student organization members from CAFNR Student Council for focus group interviews, we ensured the widest possible cross-section of CAFNR student organizations would participate and be able to share their experiences. Observations of CAFNR Fall Round-Up and CAFNR Student Council meetings specifically focused on gathering further information about issues that were emerging in focus groups and document analysis, interactions among students, and subtle factors such as dress and body language. As suggested by Patton (2002), researchers also considered “what did not happen, especially if it ought to have happened,” (p. 295) during these observations. Researchers spent time immediately after the observations writing reflective memos about what they had observed.

Document Analysis

The research team analyzed the CAFNR website for information about the 50 organizations that are associated with the college. Additionally, the team viewed CAFNR social media posts and flyers advertising events from the various CAFNR organizations over a three-month period. Researchers considered the purpose of the documents, as well as how the documents could provide deeper understanding of CAFNR organizations. Documents were used to help provide context about clubs and organizations that could not be observed. Additionally, documents helped the research team confirm or disconfirm data through focus group interviews and observations (Stake, 1995).

Focus Group Interview Data Analysis

Stake recommends, “Each researcher needs, through experience and reflection, to find the forms of analysis that work for him or her” (Stake, 1995, p. 77). The research team chose to use the constant comparative method for data analysis (Fram, 2013; Glaser & Strauss, 1967). The method aligns with Stake’s recommendations for data analysis in case studies, offering a flexible design that adapts while proceeding from design to research. Although this data analysis technique is most commonly associated with grounded theory methodology, it has also been extensively used in case study research in the field of agricultural education (Cross & Kahn, 2018; Martin et al., 2014; Stubbs & Myers, 2016) and is commonly used outside of grounded theory research broadly (Fram, 2013).

Data analysis was an ongoing process during the three months this study was conducted. Focus group interviews were sent to a transcription service immediately after researchers conducted

each round of focus group interviews. Each member of the research individually read the first round of focus group interview transcripts, the first set of field notes and reflective memos, and viewed the CAFNR websites, flyers, and social media posts.

Data analysis followed these steps: (a) identifying the phenomenon of interest, the student leadership experience in CAFNR clubs and organizations; (b) identifying key concepts of the phenomenon; (c) making data collection decisions based on our initial understanding of the phenomenon; (d) engaging in purposeful and relevant sampling of groups and subgroups to allow categories to emerge (Glaser & Strauss, 1967).

Data were coded using open, axial, and selective coding (Corbin & Strauss, 2007). During open coding, relevant data were tagged. Open coding was performed by each member of the research team individually. During axial coding, the team related categories of data to each other. Core categories of data were identified during the selective coding phase. The research team worked together to conduct the axial and selective phases of data analysis, transforming data into categories and themes. This process continued throughout the duration of the study as a deeper understanding of the phenomenon occurred (Strauss & Corbin, 1990).

Triangulation

Information from the document analysis and observations was interwoven with data from interview transcripts. Using multiple methods allowed us to check statements made in interviews against what we observed or read (Merriam, 2009) and provided further context about the phenomenon. Our three sources of data-interviews, observations, and documents-allowed for triangulation.

Case Description

We selected a bounded single case study to explore the phenomenon of interest: undergraduate leadership experiences in student organizations. CAFNR was selected, in part, because of its claims of developing student leadership ability and expressed intention to prepare students for a complex, interconnected world. However, this case was also selected due to its accessibility to, and interest to, the researchers, all of whom are faculty within CAFNR.

Mizzou is a land grant institution located in a Midwestern state in a town of approximately 110,000 people. The university enrolls nearly 30,000 students; approximately 2,400 are pursuing undergraduate degrees in CAFNR. The college is composed of six divisions and offers 12 different undergraduate degrees. More than 50 student organizations are associated with the college. Ranging from six members to over 100, these organizations provide opportunities for students to get involved outside of the formal classroom. Clubs are diverse in scope and focus, but most have some connection to agriculture or natural resources, and most of their membership is composed of CAFNR students. Many clubs focus on skill development related to a major (e.g., Agricultural Communicators of Tomorrow), but others focus on social connection (e.g., agricultural sororities and fraternities), exposure to policy (e.g., Farm Bureau), or value-based interests (e.g., Wildlife Society).

Trustworthiness

Guba (1981) suggests four constructs that contribute to trustworthiness in qualitative research: credibility, transferability, dependability, and confirmability. Data source triangulation, methodological triangulation, and investigator triangulation contribute to credibility. Findings are

communicated with rich, thick descriptions, contributing to the transferability of this study. Keeping a detailed audit trail of all phases of the study, including the data analysis and coding process, enhanced the dependability and confirmability of the study. Additionally, carrying out this project throughout the entire semester (an extended period of time) promoted dependability.

Limitations

We acknowledge the limitations to this study. It is probable that students held back some of their deepest criticisms or concerns regarding the phenomenon of undergraduate leadership experiences due to the fact that in many cases, the researchers are also their professors. Although we cannot generalize this study beyond this case, findings can be transferable knowledge to others who may work with similar groups of students.

Findings

Four themes emerged from the triangulation of the three data sources: (a) enjoying the present, preparing for the future; (b) commitment and social pressure; (c) perceptions of leadership role; and (d) perceptions of organizational success. Participant quotes and researcher observations help to describe each of the four themes.

Theme 1: Enjoying the Present, Preparing for the Future

For the students in this study, leadership opportunities in CAFNR clubs and organizations were an important part of their undergraduate experience. Many mentioned that clubs are where they go to see friends: “When you get to an organization, I mean, the idea is to get close with one another and become friends, because that's how you—I mean, that's how it's enjoyable.” Social media posts and marketing flyers also showed the emphasis on friendship and camaraderie within the clubs and organizations.

Social and professional development purposes are intertwined in organizations. One club officer who aspires to be a veterinarian shared, “And I find that there's more of [socialness] in Dairy Club, specifically, because our pitch is you don't have to have any experience at all in this club. Dairy cows are great to learn with, so the majority of my members, you know, are out there just for fun, but also to get the experience for their vet school application.”

Student comments frequently focused on what would occur after college, not just what was currently happening. One participant stated, “I joined [organization] because I wanted to get more professional development, and get to learn more about the ag atmosphere, and I continue to stay involved because the [people in my organization] helped push me in leadership and—and my passion for ag.” Many participants reported leaning on their organizational involvement to help propel them into the future.

Participants considered making connections through organizations to be one of the most important ways they could prepare for the future. One upperclassman shared, “A lot of the times, when they get a job, it's from the connections that they have [through this organization] ...and probably something that they wouldn't have the chance of if they didn't know who that person was, or if that person didn't know that they were from being involved [in this organization].”

Participants clearly valued organizations for providing them the opportunity to have an officer position, which they equated with leadership. They believe that employers are looking for people who have served as officers in AFNR student organizations. One participant who assists at the Career Services Office within the college explained, “I also think we need to drive home the

point with students how, like, how central leadership is to helping your resume. I think—and that comes from working at CAFNR Career Services, doing resume reviews, or, like, even a couple of friends after the career fair were saying, you know, companies said they, you know, didn't have enough leadership experience, and so, I think sometimes that gets overlooked, maybe...But I think somehow driving home that aspect that it—that it is important not only to just be a member, but serve on an officer team within a club within CAFNR.”

Students believed that listing themselves as an officer on a resume “means something” to potential employers and is an important prerequisite for professional success. A student explained, “I think there's just a large misconception among students that if you're in a lot of clubs, that looks really well on you, on a—like, from a resume standpoint, and I—I think that a lot of the feedback that I've gotten from interviews with companies and employers is that, you know, they don't even look at, uh, all the clubs you're in anymore, because it's all kind of just BS, because they know that people put them on there for a resume booster.” Participants attributed limited value to membership in organizations, but they put significant value on having held an officer position.

Theme 2: Commitment and Social Pressure

Students wanted to belong to a group that is considered to be active and committed, but many participants reported struggling to figure out how to keep their members engaged. One participant shared his thoughts about holding members accountable for their participation. “So, it's kind of one of those deals where you don't want to be, you know, a group that's so select that you're just kicking out people left and right, because, you know, you don't want to be in [this organization] and, ‘Oh, well, you haven't been here, so you're gone,’ but at the same time, there has to be some sort of something to keep you around and keep you accountable, because there's just going to be people who are going to pay the \$25, get a T-shirt, and never see it [sic] again.” Observations of club and organizational meetings provided further evidence that membership according to rosters tends to be much larger than the number of members who show up to meetings.

One of the ways some of the organizations tried to keep members committed is through what they call “social pressure.” One participant explained, “Because, like I said, there are fines put into the situations, and social pressure of, ‘You need to be here and help out,’ and stuff like that. Uh, like I said, we just got done with homecoming, and a majority of our members there helping and want—and wanted to be there. So, I just think making a, uh, atmosphere that's welcoming, but also, you know, ‘Roll up your sleeves and get to work,’ that's—that's what you need to have whenever you're talking about organizations and clubs.”

Several of the most active students in CAFNR organizations shared concerns about how much commitment is too much. They admitted that they felt pressured to take on more and more organizational responsibilities and discussed how challenging that can be. A senior officer commented, “And so, the university promotes, like, a diversity of experience, and how important it is to be involved and do several different things and not put all your eggs in one basket, but also, that's really hard, because when you're involved and you're capable, people expect you to take on the absolute most, and so, that gets really difficult too with class and responsibilities and work, too.”

Theme 3: Perceptions of Leadership Role

Repeatedly, the research team heard that the positional leaders of student organizations make the decisions of the organization, and, in some cases, the officers make up the majority of meeting-attending members. “We have our officer team that almost makes up half of our membership, and so, that's the most involved right now, and so, a lot of our membership gets the

impression that we've pulled inward. They haven't really had the opportunity, um, to get super involved with our organization.”

In some student organizations, it seemed that new members, or members who weren't officers, didn't have a respected voice. One upperclassmen officer shared, “I don't know, if you see people who haven't been around very long and they say something, and it's—I mean, it's important for them to talk, and it's nice to see them speaking up, but sometimes, they don't understand all the aspects of it yet, so then, what they say really isn't all that relevant all the time.” The research team also observed that some members, particularly underclassmen, tended to not contribute to discussion in club or organizational meetings.

Another new club member who was not an officer explained, “As freshmen, we felt like we weren't being included by the upperclassmen, because we think they were in their own...well, they've known each other for years, so they kind of formed their own cliques, so to speak...We felt like we weren't being engaged, we were kind of being left out, that we were...members of a club, but we weren't—we really didn't feel like we were part of it...[upperclassmen officers] were calling the shots. Not because of out of any contempt for us, but just because they really didn't know about us...They kind of almost had no idea we were there.”

To many students who participated in the study, it seemed that holding an officer position was a prerequisite to leading, and, moreover, that leading principally meant performing tasks on behalf of members. One student stated, “So, ours [club] is so officer-driven, for the most part, so, you know, planning events, we'll get the members' input, which like I said, hasn't been much lately, but, uh, at the end, it kind of falls on the six-member officer team. So, our lack of membership involvement ties to the lack of big events we can plan, so I think when we're planning smaller events, there's not near as many opportunities for leadership.” One club that appeared to contradict this trend was the Swine Club, which focuses on the pork industry, meats judging, and swine shows. Here, the president reported starting the year by giving every member an index card and asking them to write on it what they wanted to do during the year. This type of group planning was rather uncommon.

The most common task associated with leadership was event planning. One student explained, “I'm professional development chair. Other than me, I have, like, a bunch of other girls in our chapter, um, who that way, they get a little bit more of a push to be able to still take that leadership role, um, and still help us kind of put together our events that we're planning...” In many cases, the student officers seem to be planning these events alone. They were not soliciting help from non-officer members, guiding a small team, or receiving guidance or assistance from their club advisers. One student explained that their adviser would help if asked, but it appeared that did not usually happen. “I would say, uh, my club is more student run. It's not to say that there isn't involvement from faculty, um, say if you needed their help with something, they would always be willing to—they'd be happy to help. But it's just kind of a needed by needed [sic] basis, an event-by-event basis, just kind of depending on what's going on, and if they're really needed.”

However, in a contradictory statement, one participant explained the importance of having advisor involvement. “If your advisor only comes to one meeting a semester, it's very hard to establish goals for the club, no matter how big or small it is. I mean, students can do a lot, but, um, without having that role of knowing what's going on campus from a faculty standpoint, uh, students only know so much, so, uh, yeah, but with having them there and present and involving themselves with students and, uh, the student life as well, I mean, there's an exchange of information there on what's going on campus from students and faculty, so just having that open communication, having them there at events and everything they're trying to do, is important.” Observations of several club meetings over time provided further evidence that advisor involvement looks markedly different

among various AFNR clubs and organizations, with some playing an active role and many largely absent.

Theme 4: Perceptions of Organizational Success

Students had different viewpoints about evaluating the success of their student organization. To many students, high member participation in events equaled success. As one president explained, “I measure success [of the organization] by how many people we get to attend.” Other participants were concerned about whether their members were having fun at events. One officer explained, “[Club success is] getting feedback from your members, like, the people who attend your events, and if they had a good time, or any recommendations that they have, and then, you can kind of gauge, ‘Okay, we did a good job,’ or, ‘We didn’t [do a good job].’” Level of activity seemed to be associated with a club’s success.

One participant explained that, to him, success is about adding value; “...making sure that you're having valuable events, like, adding value to the experience, is a way to measure success... if you are getting something out of it. Whether that is professionalism, community service, depending on what the event is...”

Students placed high importance of planning meaningful events and were adamant about not wasting members’ time or simply meeting for the sake of having a meeting. One participant explained, “You got to—you got to have something that draws in people and keeps them interested, because when you have meetings that don’t have any connection to anything, don't have any meaning to them, then there's no reason to go.”

Another participant added, “I think it's just your group's leadership and your officers, and if they can do something and put something together fun and worthwhile, then people are going to come to it. If it's something that is pointless, and they've been to three or four meetings that we don't really do anything, then they're not going to come back.”

Discussion

Student Organization Participation and Engagement

The first research objective of this study was to describe undergraduate students’ participation and engagement in CAFNR’s student organizations. Qualitative data revealed that for many students in this study, the clubs and organizations in which they are members provided an important part of their college experience and personal identity. Many students were drawn to clubs and organizations within their major, which often overlapped with their extracurricular interests. Students found value sharing their passion for a subject through a club with peers and professional contacts, including alumni and faculty members.

In many cases, club participation was also seen as a credentialing opportunity. Club participation was seen as a means of increasing the likelihood of a student being hired after college. And while some saw seeking a club leadership position as the logical next step in deepening commitment to the organization, most also acknowledged that they were motivated by the belief that potential employers saw more value in holding an office. In other words, they believed joining the club associated with a major was expected by potential employers, but serving as an officer was a differentiating credential that might help when searching for a job. Perhaps most notable, virtually no one reported joining a club or organization for the express purpose of expanding their leadership abilities.

No two clubs were alike. Differences in structure and purpose impacted participation levels and measures of success. For instance, students who were also in Greek organizations with selective membership and fines for non-participation reported very high attendance at meetings and events in those organizations. Other CAFNR student organizations with the built-in purpose of competition with other universities also reported positive persistence and participation among members. However, a majority of clubs, both professional and social, discussed struggling with low participation.

There are currently 50 recognized clubs within CAFNR with multiple professional clubs within degree programs. The large number of specialized clubs, coupled with a perceived value of serving as an officer, may contribute to small club memberships where officers constitute the bulk of active membership. Further, many of the study participants were officers in multiple clubs and were previously connected through leadership development events in high school. The issue of limited access to positional leadership roles raises questions about the availability of opportunities for traditional leadership development through student organizations for the “average” CAFNR student. Students who did not have high school leadership development opportunities may not feel prepared to seek out leadership positions in college student organizations and may find themselves disengaged members of multiple clubs.

Perceptions of Leadership Experiences

The second research objective was to describe CAFNR undergraduate students’ perceptions of their leadership experiences in CAFNR student organizations, according to the Leader Identity Development model. While the LID model is not an instrument meant to empirically measure the level of leadership among participants, it is a useful theoretical lens for discussing the evidence of the level of leadership that is described in the findings. Qualitative data revealed several student perceptions that are indicators of the Leader Identity Development (LID) model’s stages of leadership development (Komives, et al., 2006).

First, most club officers tended to operationalize their club leadership experience as being responsible for making decisions for the organization and planning events for members. Many students indicated that being selected as an officer or committee chair were prerequisites for being entrusted with club responsibilities and decision-making powers—for being a leader, from their perspective. Similarly, some participants reported that in their organizations the officers made up a majority of the active membership, and club leaders reported their own decision making and planning were most important to the success of the organization. Essentially, positional club leaders carried out the purpose of the organization by planning and executing events *for* their members and measured their success by how many members participated in events.

The views described above are consistent with stage 3 of the LID model, *Leader Identified* (Komives et al., 2006). Stage 3 is typified by viewing leadership as tantamount to holding a position in an organization. For example, participants frequently referred to an officer team as “the leadership” for the organization, rather than seeing leadership as being present in the entire organization (i.e., Stage 4 and up). Also, participants are unknowingly describing a leader-follower dichotomy when they discuss the separation between officers and members in their organizations, with officers primarily being responsible for decision making and providing services. This is an indicator of LID stage 3 thinking; stage 3 leaders tend to view leaders as responsible for “the leadership” of the organization and followers as largely passive recipients.

However, not all organization members could be classified in LID stage 3 (Komives et al., 2006). In contrast, two organizations, Swine Club and the Tractor Pulling Team, described their clubs’ positional leaders as inhabiting more of a facilitator role. The president of Swine Club

recalled starting the year by giving every member an index card and asking them to write what they wanted to do during the year. Later, they distributed the responsibility for enacting those ideas, and the authority to enact them, broadly among the group’s members. Similarly, the Tractor Pulling Team, with its clear, built-in common purpose of competing in tractor pulls, described a more democratic approach to leadership. This may also account for both group’s reported high participation and engagement. The sentiments above could be described as approaching LID stage 4, *Leader Differentiated* (Komives et al., 2006). Competent LID stage 4 leaders will seek to engage a wide variety of group members, positional or non-positional, to accomplish group tasks and establish group norms. They will also trend toward more democratic leadership styles and hold the belief that leadership can and should come from anywhere in the group.

Combining the results of these two research questions in light of the literature, we find two meta-level discussion points. First, differing reports in the literature on the efficacy of student organizations in leadership development could simply be due to the *definition* of leadership development used in those studies. Often, leadership development is conflated with personal and professional development. Becoming better networked, gaining valuable industry knowledge, learning about internship or job opportunities, and other career-advancing benefits are all associated with participating in student organizations in the literature — and participants in this study reported these as being important elements of their student organization experience. However, these are not leadership skills, and separating leadership development benefits from personal and professional development benefits broadly in the literature will help us to better understand the degree to which leadership development is occurring in student organizations. This study found support for the claims that participation in student organizations helps students to become better networked, both to their peers on campus and to industry professionals (i.e., personal and professional development). Students perceived these connections as being advantageous to their career prospects after leaving college. This study also found evidence that student organizations in CAFNR are providing leadership development opportunities for some students. However, these opportunities may not be as beneficial as generally believed due to the nature of the leadership practiced and the manner in which it delivered.

Second, there is a general mismatch between the leadership that is practiced in student organizations and the leadership that is called for by both ecological leadership scholars and agricultural industry employers alike. Agricultural industry employers report important deficiencies in leadership-related skills like navigating change and ambiguity, dealing constructively with conflict, and analyzing and solving problems (Crawford et al., 2020b). Ecological leadership proponents cite the importance of engaging in socio-cultural discussions (Dugan & Komives, 2007), distributing leadership responsibility and power broadly, and engaging all actors in the system to harness the talent, creativity, and expertise in a given group to help it adapt and thrive (Western, 2019). These skills and leadership approaches derived from the ecological paradigm are generally considered better suited to solving complex, 21st century problems than a more industrial view of leadership.

However, based on the participants’ descriptions of their experiences in student organizations, for most students there does not appear to be many opportunities for the development of the more advanced leadership skills described above. Some students do appear to be gaining important LID stage 3 leadership experience, such as running meetings and organizing events for members. LID stage 3 leaders see leadership as holding a position, performing tasks on behalf of followers, and engaging in more authoritarian leadership styles. Indeed, the very nature of the problems addressed in student organizations lend themselves to LID stage 3 leadership. Running meetings and organizing events for club members—as important as these skills are to possess—are relatively simple, low-level opportunities to exercise authority. Even those leaders described as

approaching LID stage 4 in performing their leadership role are still primarily engaged in performing concrete, production-oriented tasks. The importance-preparedness gaps identified by Crawford et al. (2020b) should, therefore, not be surprising. In these steady-state student organizations so focused on event-planning and competition, when would students have the opportunity to navigate change and ambiguity, or identify and analyze truly complex problems? When do students have the opportunity to engage across difference? When would students need to help the organization adapt by reassessing values, priorities, and identities? Based on students' experiences in this case, there are simply not opportunities to practice this type of leadership in the student organization experience.

Finally, the pedagogical strategies used by the faculty who are responsible for delivering leadership development programs in student organizations are critical to the development of students' leadership capacities (Dugan et al., 2011; Rosch & Coers, 2013). While discussing pedagogical strategies was not expressly the purpose of this study, there is evidence that the primary method by which leadership is developed is through event planning, and faculty advisors often are not engaged with the student organization to an extent that would suggest high-impact pedagogical strategies were being employed. Indeed, as one participant put it, it's "Roll up your sleeves and get to work." The primary means of leadership development in student organizations is the completion of production-oriented tasks like event planning.

Conclusions/Recommendations

This study uncovers undergraduate student perceptions of, and experience with, leadership in student organizations in CAFNR. It describes a situation in which motivation to join a club and seek a leadership role is as often transactional (e.g., being club officer looks good on a resumé) as it is social and developmental. It also describes an understanding and approach to leadership that, while not monolithic among CAFNR students, seems best described as LID stage 3, *Leader Identified*. This is highly problematic. If COAs are, in part, for the purpose of preparing graduates to help collaboratively solve complex, adaptive, 21st century problems that require leveraging the collective intelligence, energy, and creativity of all actors in a system, we are probably not serving them well by preparing them to be authoritarian, romantic hero leaders who believe leadership requires a position, enforces a leader-follower dichotomy, and are largely focused on completing tasks for the followers. Solving agriculture and the world's complex problems requires leaders who can engage at LID stage 4 and above, distribute leadership broadly, and engage with values, priorities, and identifies for the purpose of adaptive change (Heifetz et al., 2009; Komives et al., 2006).

The findings of this study, while not generalizable, are likely transferable to similar colleges of agriculture. If college organizations are, indeed, critical everyday venues for practicing leadership, we recommend those experiences not be solely student-directed. As Dugan et al. (2007) noted, the most important factor in leadership development appears to be less the leadership context and more the degree to which high-impact pedagogical strategies are integrated into that context. Leadership development in student organizations shouldn't be haphazard. The let-the-students-run-it strategy may be an appropriate tactic for moving students off the sideline into a leadership role (i.e., from LID stage 2, *Exploration/Engagement*, to a LID stage 3, *Leader Identified*, where students occupy a position and perform a clearly delineated leadership role), but it is very likely not the best strategy for moving students beyond LID stage 3.

Finally, we recommend further exploration of the nature of the leadership practiced in these organizations to determine if we are best preparing tomorrow's leaders to combat the complex challenges we face. Specifically, researchers should examine the experiences of non-active

students, transfer students, and commuters to identify to what extent they are involved in extracurricular clubs and have the opportunity for leadership development as an officer or other role. Additionally, researchers could also examine to what extent club leaders seek participation from the general membership and what factors seem to determine if, and under what circumstances, they do. Similarly, researchers could further investigate alumni regarding their beliefs about club membership and officers as indicators of professional success. Finally, researchers should investigate the role advisors play in developing leadership in student organizations.

References

- Allen, J., Ricketts, J.C., & Priest, K. (2007). Contributions of pre-collegiate and collegiate leadership experiences to alumni leadership development. *NACTA Journal*, September, 56-61.
- Allen, K. E., Stelzner, S. P., & Wielkiewicz, R. M. (1999). The Ecology of Leadership: Adapting to the Challenges of a Changing World. *Journal of Leadership & Organizational Studies*, 5(2), 62–82. doi:10.1177/107179199900500207.
- Andenoro, A. C., Baker, M., Stedman, N. L. P., Pennington Weeks, P. (2016). RESEARCH PRIORITY 7: Addressing Complex Problems. In T. G. Roberts, A. Harder, & M. T. Brashears (Eds.), *American Association for Agricultural Education national research agenda: 2016-2020* (pp. 29-36). Gainesville, FL: Department of Agricultural Education and Communication.
- Anderson, J., Bruce, J., & Mouton, L. (2010). 4-H made me a leader: A college-level alumni perspective of leadership life skill development. *Journal of Leadership Education*, 9(2), 35-49.
- Astin, H. S. “Leadership for Social Change.” *About Campus*, 1996, 1(3), 4–10.
- Ball, A. L., Garton, B. L., & Dyer, J. E. (2001). The influence of learning communities and 4-H/FFA participation on college agriculture students' academic performance and retention. *Journal of Agricultural Education*, 42(4). doi: 10.5032/jae.2001.04054
- Berger, P., & Luckman, T. L. (1966) *The Social Construction of Knowledge: A Treatise on the Sociology of Knowledge*. Garden City, NY: Doubleday.
- Birkenholz, R. J., & Schumacher, L. G. (1994). Leadership skills of college of agriculture graduates. *Journal of Agricultural Education*, 35(4), 1-8. doi: 10.5032/jae.1994.04001.
- Boatman, S. A. (1999). The leadership audit: A process to enhance the development of student leadership. *National Association of Student Personnel Administrators Journal*, 37 (1), 325-336. doi:10.2202/1949-6605.1100
- Casner-Lotto, J., Rosenblum, E., & Wright, M. (2009). *The ill-prepared US workforce: Exploring the challenges of employer-provided workforce readiness training*. New York, NY: The Conference Board, Inc.
- Cletzer, D. A., & Kaufman, E. K. (2018). Eco-leadership, complexity science, and 21st-century organizations: A theoretical and empirical analysis. In B. W. Redekop, D. R. Gallagher,

- & R. Satterwhite (Eds.), *Innovation in Environmental Leadership* (pp. 96-112). Routledge.
- Cletzer, D.A., Mott, R.L., Tummons, J.D., Simonsen, J.C., Peckman, J., & Preston, K. (2022). Agricultural Leadership: A National Portrait of Undergraduate Courses. *Journal of Agricultural Education*, 63(1). doi:10.5032/jae.2022.01165.
- Connors, J.J. & Swan, B.G. (2006). A synthesis of leadership development research in agricultural education:1988-2003. *Journal of Agricultural Education*, 47(2), 1-13. <https://doi.org/10.5032/jae.2006.02001>
- Corbin, J., & Strauss, A. (2007). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks, CA: Sage.
- Crawford, P., & Fink, W. (2020a). *From academia to the workforce: Navigating persistence, ambiguity, change, and conflict in the workplace*. Washington, DC: Association of Public and Land-grant Universities.
- Crawford, P., & Fink, W. (2020b). *From academia to the workforce: Critical growth areas for students today*. Washington, DC: Association of Public and Land-grant Universities.
- Crawford, P., Lang, S., Fink, W., Dalton, R., & Fielitz, L. (2011). *Comparative Analysis of Soft Skills: What is Important for New Graduates?* Washington, DC: Association of Public and Land-grant Universities.
- Cross, S. M., & Kahn, S. (2018). Science in the garden: A qualitative analysis of school-based agricultural educators' strategies. *Journal of Agricultural Education*, 59(4), 88-104. <https://doi.org/10.5032/jae.2018.04088>
- Council for the Advancement of Standards in Higher Education. (2006). *CAS professional standards for higher education* (6th ed.). Washington, DC: Council for the Advancement of Standards in Higher Education.
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. (3rd ed.) Thousand Oaks, CA: Sage.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design* (4th ed). Thousand Oaks, CA: SAGE Publications, Inc.
- Dugan, J. P., Bohle, C. W., Gebhardt, M., Hofert, M., Wilk, E., & Cooney, M. A. (2011). Influences of leadership program participation on students' capacities for socially responsible leadership. *Journal for Student Affairs Research and Practice*, 48, 65–84. <https://doi.org/10.2202/1949-6605.6206>
- Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study*. College Park, MD: National Clearinghouse for Leadership Programs.
- Dugan, J. P., & Komives, S. R. (2010). Influences on college students' capacities for socially responsible leadership. *Journal of College Student Development*, 51, 525–549. doi:10.1353/csd.2010.0009

- Engbers, T. (2006). Student leadership programming model revisited. *Journal of Leadership Education*, 5 (3), 1-13.
- Ewing, J.C., Bruce, J.A., & Ricketts, K. G. (2009). Effective Leadership Development for Undergraduates: How Important is Active Participation in Collegiate Organizations? *Journal of Leadership Education*, 7(3), 15.
- Finch, D.J., Hamilton, L.K., Baldwin, R., & Zehner, M. (2013). An exploratory study of factors affecting undergraduate employability. *Education + Training*, 55(7), 681-704. doi: 10.1108/ET-07-2012-0077
- Foreman, E. A., & Retallick, M. S. (2013). Using involvement theory to examine the relationship between undergraduate participation in extracurricular activities and leadership development. *Journal of Leadership Education*, 12(2), 56–73. <https://doi.org/10.12806/V12/I2/56>.
- Fram, S. M. (2013). The constant comparative analysis method outside of grounded theory. *Qualitative Report*, 18, 1–25. Retrieved from: <http://files.eric.ed.gov/fulltext/EJ10004995.pdf>.
- Glaser, B. G., & Strauss, A. (1967). *Discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine–Transaction.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal*. 75-91.
- Hastings, L. J., Barrett, L. A., Barbuto, J. E., & Bell, L. C. (2011). Developing a paradigm model of youth leadership development and community engagement: A grounded theory. *Journal of Agricultural Education*, 52(1), 19-29. doi: 10.5032/jae.2011.01019
- Heifetz, R. A., Grashow, A., & Linsky, M. (2009). *The practice of adaptive leadership: Tools and tactics for changing your organization and the world*. Harvard Business Press.
- Komives, S. R., Longerbeam, S. D., Owen, J. E., Mainella, F. C., & Osteen, L. (2006). A leadership identity development model: Applications from a grounded theory. *Journal of College Student Development*, 47(4), 401-418. DOI: <https://doi.org/10.1353/csd.2006.0048>.
- Komives, S. R., Owen, J. E., Longerbeam, S. D., Mainella, F. C., & Osteen, L. (2005). Developing a leadership identity: A grounded theory. *Journal of College Student Development*, 46(6), 593-611. DOI: 10.1353/csd.2005.0061
- Layfield, K. D., Radhakrishna, R. B., & Andreasen, R. J. (2000). Self-perceived leadership skills of students in a leadership program in agriculture course. *Journal of Southern Agricultural Education Research*, 50 (1), 62-68
- Levi, D., & Askay, D. A. (2020). *Group dynamics for teams*. SAGE Publications.
- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.

- Marcketti, S. B. & Kadolph, S. J. (2010). Empowering student leadership beliefs: An exploratory study. *International Journal of Teaching and Learning in Higher Education*, 22(2), 131-139.
- Martin, M., Tummons, J., Ball, A. & Bird, W. (2014). Dogs in the hall: A Case study of affective skill development in an urban veterinary program. *Journal of Career and Technical Education*, 29(1), 9-24.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey-Bass.
- National Association of Colleges and Employers [NACE]. (2021). The attributes employers seek on students' resumes. National Association of Colleges and Employers. <https://www.naceweb.org/talent-acquisition/candidate-selection/the-attributes-employers-seek-on-students-resumes/>
- National Research Council. 2009. *Transforming agricultural education for a changing world*. Washington, D.C.: National Academies Press
- Northouse, P. G. (2013). *Leadership: Theory and practice* (6th ed.). Thousand Oaks, CA: Sage Publications.
- Park, T. D., & Dyer, J. E. (2005). Contributions of agricultural education, FFA, and 4-H to student leadership in agricultural colleges. *Journal of Agricultural Education*, 46(2), 83-95. doi: 10.5032/jae.2005.02083
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Powell, D. & Agnew, D. M. (2007). Student leader preferences: What students want from involvement in student organizations. *NACTA Journal*, 51(2), 11-18.
- Roberts, T. G, Harder, A. & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- Rosch, D. M., & Coers, N. (2013). How are we educating agricultural students? A national profile of leadership capacities and involvement in college compared to non-agricultural peers. *Journal of Agricultural Education* 54(1), 83-96. doi: 10.5032/jae.2013.01083.
- Rost, J. C. (1993a). *Leadership for the twenty-first century*. Greenwood Publishing Group.
- Rost, J. C. (1993b). Leadership development in the new millennium. *Journal of Leadership Studies*, 1(1), 91-110.
- Rost, J. C., & Barker, R. A. (2000). Leadership Education in Colleges: Toward a 21st Century Paradigm. *Journal of Leadership Studies*, 7(1), 3–12. <https://doi.org/10.1177/107179190000700102>.
- Stake, R. E. (1995). *The Art of Case Study Research*. Thousand Oaks, CA: Sage Publications.

- Strauss, A. & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage Publications.
- Stubbs, E. A., & Myers, B. E. (2016). Part of what we do: Teacher perceptions of STEM integration. *Journal of Agricultural Education*, 57(3), 87-100. doi: 10.5032/jae.2016.0308
- Suvedi, M., & Heyboer, G. (2004). Perceptions of recent graduates and employers about undergraduate programs in the college of agriculture and natural resources at Michigan State University: A follow-up study. *NACTA Journal*, 48(1), 22-27.
- von Stein, M. F., & Ball, A. L. (2008, September). *Examining undergraduate student involvement in collegiate student organizations in colleges of agriculture*. Paper presented at the North Central Region Conference of American Association for Agricultural Education, Ithaca, NY.
- Weeks, W. G., & Weeks, P. P. (2020). Agricultural sciences and natural resources: Developing future agricultural leaders. *New Directions for Student Leadership*, 2020(165), 37–48. <https://doi.org/10.1002/yd.20367>
- Western, S. (2019). *Leadership: A critical text*. SAGE Publications Limited.
- Wielkiewicz, R. M., & Stelzner, S. P. (2005). An ecological perspective on leadership theory, research, and practice. *Review of General Psychology*, 9(4), 326-341. <https://doi.org/10.1037/1089-2680.9.4.326>.
- Wielkiewicz, R. M., & Stelzner, S. P. (2010). An ecological perspective on leadership theory, research, and practice. In B. W. Redekop (Ed.), *Leadership for environmental sustainability* (pp. 36-54). Routledge.
- Willis, J. (2007). *Foundations of qualitative research: Interpretive and critical approaches*. Thousand Oaks, CA: Sage.