Are We Developing Leaders? Connecting Undergraduate Leadership Identities to their Needs and Contexts

Abstract

Graduates of the college of agriculture are expected to have the skills needed to enter the workforce including leadership competencies. The purpose of this mixed methods case study was to identify leadership development influences on and assess the leadership needs of undergraduate student leaders (n = 17) in the College of Agricultural and Life Sciences (CALS). We conducted this study through in-person, semi-structured interviews. We utilized a concurrent, sequential, multi-phase mixed methods design with a qualitative priority. In phase one, we open coded transcriptions and used an iterative process to find emerging themes. Results revealed four themes: engaged leadership, leadership experiences, group dynamics, and resources. In phase two, we employed a cross case comparison to explore similarities and differences across emergent themes related to leadership identity. It was evident differing hierarchical and relational views of leadership existed based upon leadership identities.

Keywords: leadership identity; undergraduate student leaders

Introduction

Graduates of agricultural education programs must be prepared to enter the workforce, equipped with the capacity to address 21st century issues (AGree, 2012; Crawford & Fink 2020). Colleges of agriculture have the responsibility to prepare graduates with employability skills necessary for success in their future careers and tools to be catalysts of change in the food and agricultural system (Crawford & Fink, 2020; Easterly et al., 2017). Several studies report that serving as a leader in a club or organization increases these skills and leadership development (Dugan & Komives, 2007; Dugan et al., 2013, Ewing et al., 2009; Foreman & Retallick, 2012; Haber & Komives, 2009). Other experiences noted for building leadership capacity are undergraduate leadership courses, teaching assistantships, mentorship opportunities, and community engagement (Chung & Personette, 2019). Intentional leadership programming also prepares students and other industry professionals for the workforce (Dugan & Komives, 2010; Harrison, 2022; Kaufman et al., 2012; Osteen & Coburn, 2012; Shalicky et al., 2018). Educators must develop these programs with an understanding of the environmental influence and contexts in which they are built (Owen, 2012).

Ho and Odom (2015) shared the high demand for leadership in a variety of contexts. When discussing adult leadership programs, Kaufman et al. (2010) suggested "an agricultural leadership development program should focus on three areas: (a) knowledge of the changing industry; (b) relationship building across industry sectors; and (c) practical, transferable skill development" (p. 123). Agricultural leadership programs are often situated in land-grant universities based on their historical mission for extension and outreach efforts (Osteen & Coburn, 2012). Leadership development programs have a long history at land-grant institutions that proceeded the 1970s' trend of campus-based student leadership programs (Osteen & Coburn, 2012).

In 2007, Dugan and Komives stated there are three overarching problems in higher education leadership programming: a gap between theory and practice, a lack of understanding of the developmental needs of students, and the degree of environmental influence on leadership development. Later, Osteen and Coburn (2012) postulated "effective and relevant leadership programs

emerge from their institutional contexts and environments" (p. 6). This expanded to include a sequential model of developmental readiness that begins with pre-college leadership capacity and linearly moves through individual, group, and societal leadership domains (Dugan et al., 2013). When students have the opportunity to actively practice their leadership skills, they can foster their leadership capacity by exploring their leader identity (Chung & Personette, 2019). With this in mind, we designed this mixed method case study to explore environmental impacts and needs of students on leadership identity development in the College of Agricultural and Life Sciences (CALS) at a university in the pacific northwest. We utilized the Leadership Identity Development (LID) model (Komives et al., 2005) as a guiding framework for assessing leadership identity development of student leaders. Further, we propose this study as a method for assessing leadership development needs in your college.

Review of Undergraduate Leadership Programs

The underlying belief of undergraduate leadership programs regards leadership as something that can be learned and developed (Owen, 2012). Jenkins (2013) suggested "regardless of a student's major or career path, leadership education complements any academic track and helps prepare students across the disciples to be leaders in a global society" (p. 60). Formal leadership programs are a method for providing leadership education and often result in positive outcomes for students, institutions, and communities (Skalicky et al., 2018; Zimmerman-Oster & Burkhardt, 1999). However, not all leadership development programs are created alike, and it is essential to consider the different programmatic elements that impact effective leadership programs.

Owen (2012) conducted the Multi-Institutional Study of Leadership (MSL) to further understand college leadership development. This study proposed that effective leadership programs are grounded in leadership literature and theory, have well-defined organizational values, involve stakeholders at all levels, and include partnerships across the campus (Owen, 2012). The MSL resulted in a focus on four components of leadership education: student needs and outcomes, effective institutional practices, the extent of environmental factors, and a further understanding of the Social Change Model (SCM) as a theoretical frame (Owen, 2012). Osteen and Coburn (2012) posit effective leadership programs should be built with student needs and environmental factors in mind and also emerge from institutional contexts and environments.

The MSL has been administered every three years since 2012; and, as of 2017, over 350 campuses and 610,000 students have participated. (Correia-Harker & Hall, 2019). This research continues to provide a broader understanding of leadership development in higher education. Martinez et al. (2020) revealed that engagement in study abroad and community service activities is associated with increased socially responsible leadership. In another study, Leupold et al. (2020) reported a significant relationship between leadership development programs and self-efficacy but found they did not correlate with resilience. However, this study also revealed other intentional experiences such as on-campus jobs and study abroad programs had a similar impact (Leupold et al., 2020). This study examined a variety of leadership development program from numerous institutions, which most likely vary in level of effectiveness and intentionality. Therefore, it supports the need for context-specific program development, with specific student needs in mind.

Astin's (1993) Input-Environment-Output (I-E-O) model of student learning provides a framework for examining the environment and context of the institution. In the I-E-O model, inputs include one's demographics, background, and experiences prior to college (Astin, 1993). A student's environment accounts for all experiences they are afforded and engage in throughout college; and outputs are regarded as the knowledge, values, and skills a student leaves college with (Astin, 1993). Haber and Komives (2009) stated "examining the influence of multiple environmental variables

simultaneously could expand our understanding of how different experiences contribute to different leadership outcomes" (p. 137). By exploring the leadership experiences and views of students, we can further understand their inputs and environment to inform the development of an effective leadership development program.

Literature Review/Theoretical Framework

Numerous leadership definitions exist and are utilized by leadership scholars today. Over the past century, leadership perspectives have progressed from "great men" theories to exploring traits exhibited by leaders in positional roles to examining situational leadership behaviors (Komives & Johnson, 2009). Current leadership scholars conceptualize leadership as a process that involves all individuals regardless of position or status (Owen, 2012). Connors et al. (2006) argued "leadership is a process that develops overtime and is influenced by an individual's personal characteristics, experiences, and influences" (p. 105). This definition implies one's leadership capacity is centralized on the *process* in which they develop their skills and knowledge of leadership—and that process is influenced by one's environment, experiences, and characteristics.

This shift in the understanding and definition of leadership contributed to the development of relational leadership, which is a theoretical model that is purposeful, inclusive, empowering, ethical, and process-oriented (Komives & Johnson, 2009). The relational leadership model promotes socially responsible leadership development, which is highly regarded as the desired outcome for student leadership development (Osteen & Coburn, 2012). The SCM is the most widely implemented relational leadership model for campus-based student leadership programs (Haber & Komives, 2009) and focuses on driving positive change through the examination of the individual, group, and community (Higher Education Research Institute [HERI], 1996). Although these models provide a framework for developing leadership programs, they do not provide insight on how relational leadership develops. Therefore, we used the LID model as the foundation for this study.

Leadership Identity Development (LID) Model

Komives et al. (2005) developed the LID model as a means for assessing the process of how leadership identity evolves over time. Komives et al. (2005) suggested "students' changing view of themselves with others influenced their broadening view of leadership and their personal definitions of leadership" (p. 605). This process includes movement from the understanding of a leader as an external adult or older peer to the student being a leader based on a position to leadership coming from all members of a group (Komives et al., 2005). Priest and Middleton (2016) explain how multilevel views of identity impact shifts from personal to collective in the LID model. Members who reach the final stage of the model understand the process of leadership as life-long learning (Komives et al., 2005). This helix model allows students to return to previous stages and gain a deeper understanding of a stage and relational leadership (Komives et al., 2005).

The LID model includes six stages that students progress through: awareness, exploration/engagement, leader identified, leadership differentiated, generativity, and integration/synthesis (Komives et al., 2006). Progression through the LID model stages is influenced by a broadening view of leadership, developing self, group influences, developmental influences, and the changing view of self with others (Komives et al., 2006). Stage one, awareness, one recognizes leadership exists, but associates leaders with external individuals, such as authority figures (Komives et al., 2006). Students often transition to stage two when an adult acknowledges the student has leadership potential (Komives et al., 2006). In stage two, exploration/engagement, students begin to explore their interests through engagement with peers or involvement in groups or activities (Komives

et al., 2006). Theoretically, individuals often experience stages one and two prior to attending college (Wagner, 2011).

The transition from stage two to stage three is often hallmarked by a student's realization of their potential for leadership, which is typically reinforced by a role model or authority figure (Komives et al., 2006). In stage three, leader identified, students view leadership as a position and the individual in the position as the leader (Komives et al., 2006). In stages three and four, there are two distinct phases: emerging and immersion. In stage three, emerging occurs when a student identifies new leadership skills and ways to apply them (Komives et al., 2006). The immersion phase occurs as the student shifts from one leader role to another in different organizations (Komives et al., 2006).

Transition from stage three to stage four often requires reflective learning and happens when students recognize their inability to do everything and see need for others' skills and strengths (Komives et al., 2006). Scholars discuss this transition as the movement from a hierarchical view to a more relational or systemic view of leadership (Wielkiewicz et al., 2012). In the fourth stage, leadership differentiated, students grasp this idea that leadership is relational and view all members of the group as leaders, regardless of position (Komives et al., 2006). In the emerging phase of stage four, individuals observe leadership as coming from any individual in the group. In the immersion phase, students actively work to build a sense of community in their group (Komives et al., 2006).

In the transition to stage five, students begin to commit to goals, promote group values, and develop others. In stage five, generativity, students aim to develop leadership capacity in their group and have a commitment to the sustainability of the group (Komives et al., 2006). In stage six, integration/synthesis, students view leadership as a lifelong process and acknowledge their ability to be a leader in a variety of contexts (Komives et al., 2006). The transition from stage five to stage six requires reflection where students consider their transition from college into their next phase of life (Komives et al., 2006). Students move through these stages at different paces, but environments, contexts, and experiences impact transitions and development. Priest et al. (2018) indicated mentoring, coaching, and advising along with other development influences such as meaningful involvement and reflective learning (Komives et al., 2005) can influence transition through stages.

Student Involvement and Leadership Positions

Dugan and Komives (2007) suggested mentoring, campus involvement, and involvement in service all positively impacted SCM values. They concluded campus involvement at any level increased one's SCM values and their leadership potential (Dugan & Komives, 2007). Wolfinbarger et al. (2021) indicated working in collaborative teams for engineering competitions contributed to one's LID. Additional studies revealed students who serve in a positional leadership role, such as a club officer, reported increased leadership development (Dugan & Komives, 2007; Ewing et al., 2009; Foreman & Retallick, 2012; Haber & Komives, 2009). Rosch and Coers (2013) corroborated these findings but indicated that results for students in agriculture may vary from non-agricultural students.

In Rosch and Coers' (2013) study, agriculture students were involved in more campus organizations and held more leadership roles. However, an agriculture student's extracurricular involvement did not indicate growth in leadership capacity, and often they did not participate in leadership training events offered on campus (Rosch & Coers, 2013). Rosch and Coers (2013) recommended leadership educators in the agricultural sector work to engage students in activities that promote cognitive complexity and leadership capacity by incorporating opportunities to discuss social issues from different viewpoints.

Purpose and Research Questions

The purpose of this mixed method case study was to identify leadership development influences and assess the leadership needs of undergraduate student leaders in CALS at a university in the pacific northwest. An aim of this study was to provide a method for assessing context and environmental specific needs related to identity development to further institutional capacity to develop meaningful and intentional leadership programmatic efforts. This research aligns with research priority 3 of the American Association for Agricultural Education National Research Agenda, *Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century* (Stripling & Ricketts, 2016) by assessing leadership development and skill acquisition essential in preparing undergraduate students for employment in the agricultural sector. This study sought to address the following questions:

RQ 1: How do student leaders in CALS view leadership and themselves as student leaders?

RQ 2: How do the leadership identities of student leaders in CALS influence their view on leadership and themselves as student leaders?

Methods

In this case study, we utilized a concurrent, sequential, multi-phase mixed methods design with a qualitative priority (Creamer, 2018). We chose this method to gain a description of the experiences and perceptions of participants related to an issue within a bounded system (Creswell, 2014; Merriam, 2009). Table 1 includes the research design, which included a sequential approach to qualitative analysis using both emergent thematic and pre-set coding procedures. We conducted a cross case comparison to explore similarities and differences (Creamer, 2018) in emergent themes related to leadership identity development.

Table 1

Research Design: Research Approach, Analysis, and Outputs for Each Research Question

Research Question	Approach	Analysis and Outputs
RQ 1: How do student leaders in CALS view leadership and themselves as student leaders?	Qualitative	We separated interview transcripts into meaning units and employed thematic coding.
RQ 2: How do the leadership identities of student leaders in CALS influence their view on leadership and themselves as student leaders?	Mixing	We utilized an inclusion rubric based on the LID stages to score data. We examined previous thematic codes for similarities and differences based on LID stage scores.

We conducted a census of all undergraduate club and organization presidents in CALS at the university in the pacific northwest as the population for this study. We obtained a list of all 22 undergraduate clubs and organizations from the college website and cross checked the list with the academic programs office in CALS for accuracy. We contacted the student leaders (N = 22) via an email form and asked them to join the study. The final sample included 17 participants, representing 18 clubs and organizations.

We conducted the research with a demographic questionnaire and an in-person, audio recorded, semi-structured interview in a central location on campus. We collected information about students'

major, grade level, age, current membership in organizations, and leadership roles held at the university. We asked participants 10 open-ended questions grounded in the leadership development stages of the Komives et al. (2006) LID model. Two researchers conducted the interviews in October of 2018. Both interviewers journaled their thoughts and reflections. Interviews were approximately 30 minutes. We transcribed interviews verbatim and separated the complete transcripts into "meaning units," or pieces of datum that represented a singular idea or concept (Elo & Kyngäs, 2008).

In phase one, we employed an iterative process to aid in the trustworthiness of the coding and meaning making process (Creswell, 2014). Three researchers independently open-coded meaning units from three interviews (Corbin & Strauss, 1990). We used the constant comparative method to collaboratively identify categories (Merriam, 2009). We collaborated to compare open codes, identify initial categories, discuss potential themes, and ensure inter-coder reliability (Rossman & Rallis, 2012). This collaborative process included compiling codes from each researcher and verbally discussing reasoning for codes. We then divided the remaining interviews and used focused coding (Charmaz, 2014) with analytical memos for variation from initial categories. In this iterative process, we concluded thematic analysis by collaborating to verbally discuss and adjust initial categories until we met saturation and agreed upon the emerging themes.

In phase two, we recoded each meaning unit with pre-set codes relating to the stages of the LID model. Prior to coding, we developed a rubric (Table 2) to quantize the qualitative data (Pearce, 2012). We scored each meaning unit individually on a scale of one to six based on the six stages of the LID model (Komives et al., 2006). We calculated inter-coder reliability at 80% with no ratings more than one level apart. We then collaboratively discussed scoring of each meaning unit until we met saturation. We determined saturation when assigned scores no longer varied between researchers (Creswell, 2014). We then determined each participant's LID score from their personal mean from their meaning units. We utilized descriptive statistics to calculate the mean score (*M*), standard deviation (*SD*), and range of LID scores.

Table 2

LID Model Category Rubric

Stage	Category	Definition
Awareness	1	Leadership is happening around you. Authority figures or external individuals in leadership positions are leaders.
Exploration/ Engagement	2	Exploring interests through involvement in groups or activities.
Leader Identified	3	Leadership is a position and the individual in a leadership position is the leader. Identification of leadership skills and the application of those skills. Experiences in leadership roles in multiple organizations.
Leadership Differentiated	4	The development of a relational view of leadership including the individual's ability to view members of the group as leaders regardless of position. Actively working to develop a sense of community in the group or organization.
Table Continued		
Generativity	5	The commitment to goals, promotion of group values, and working to develop others. A commitment to the sustainability of the group.
Integration/ Synthesis	6	Viewing leadership as a life-long process and acknowledge ways to engage in leadership in multiple facets of life.

Note. We developed the LID Model Category rubric from Komives et al. (2005) LID Model

Komives et al. (2009) posit the LID framework as a useful method for formative assessment. However, they caution against categorizing students into boxes (Komives et al., 2009). Rather than explicitly categorizing students into boxes and identifying their LID stage, we utilized a cross case comparison to explore similarities and differences (Creamer, 2018) to gain insight into their experiences and views on leadership. We compared the emergent themes and identified student leadership needs with their mean scores to explore thematic patterns for similarities and differences.

Limitations

We acknowledge several limitations of our study. The population served as a limitation because it only included individuals in presidential leadership roles in CALS organizations. These students are not representative of the general student body of CALS, but rather serve as a baseline for examination of the contextual factors impacting student LID and student leadership needs. Komives et al. (2009) reveal how assessing LID can be difficult based on the lack of a quantitative method that appropriately measures LID. To address this challenge, we chose to explore identified student leadership needs and thematic patterns for similarities and differences based on responses rather than attempting to box students into a specific LID stage. Additionally, in self-reported data, participants' responses may implicate a higher stage than their actual behaviors reflect (Komives et al., 2009). We were unable to observe the participants to make meaning of their actual behaviors.

Reflexivity

Assessing reflexivity, how one's background and biases may impact the study, is essential to increase trustworthiness, authenticity, and credibility (Creswell, 2014; Creswell & Miller, 2000). We prepared the following reflexivity statement to provide insight into how our backgrounds impacted the meaning making process.

We conducted this research project to gain insight into the environmental and contextual factors that impact student leaders in CALS to assess the need for and to develop an effective leadership development program. One researcher is a faculty member with experience in youth, college-based, and adult leadership program development. Two of the researchers are current graduate students who held previous leadership roles in the CALS. All researchers value student involvement, leadership positions, and leadership programming. The research team members worked collaboratively to monitor individual and shared biases by engaging in reflective processes to decrease the likelihood of impact on the results.

Findings

The participants in this study were undergraduate club and organization presidents in CALS. Of the 22 registered undergraduate clubs, 17 student leaders, representing 18 organizations participated in this study. Based on the size of undergraduate student population in CALS at the university in the pacific northwest, we are providing all interviewee demographical data as aggregate data to protect their confidentiality. Of the participants (n = 17), 70.6% (n = 12) identified as female and 29.4% (n = 5) as male. Participants ranged in age from 19 to 23 with an average age of 21. One participant was a sophomore (5.9%), four were juniors (23.5%), and 12 were seniors (70.6%). The students represented 11 out of the 26 majors (42.3%) in the CALS. Two of the students were not majoring in a degree offered in CALS. Of the participants, two were members in only the on-campus organization (11.8%) in which they represented, three were members in two organizations (17.6%), two were members in three organizations (11.8%), four were members in four organizations (23.5%), five were members in five organizations (29.4%), and one was a member of six organizations (5.9%). All members had held

previous leadership roles in on-campus clubs and organizations and 12 (70.6%) were in other leadership positions in an additional club or organization at the time of the study.

Phase One: Student Leaders Views on Leadership

In phase one, we sought to explore how student leaders in CALS view leadership and themselves as student leaders. Open coding of the interview transcripts and iterative meaning making process resulted in four emergent themes: engaged leadership, leadership experiences, group dynamics, and resources.

Engaged Leadership

Participants discussed their focus on developing themselves to be holistic, authentic, and genuine leaders who are passionate about their organizations. Throughout the interviews, participants often spoke about the idea that action precedes leadership. Participant 15 stated: "some of the best like examples of leadership and the best ways to learn are through like trials and adversity, and so being able to do difficult things with people…" They also spoke about the importance of seeking out the resources needed for personal growth and development.

> I've realized short comings that I've had or things that I could build on and went out and found those opportunities, things like internships or becoming an ambassador, um so that I can grow some different aspects of what I thought a leader might need to look like. (Participant 6)

Some participants stressed the importance of leading by example and engaging at the same level as their club members. Participant 3 stated: "I would say I'm a very hands-on leader. I really like to check up on people, make sure that they are able to get everything done, see if they need any help and am really always involved in the process." Several participants seemed to view leadership in an applied sense, therefore holding past experiences, and reflection as crucial to their success.

Leadership Experiences

Participants also referenced past experiences that provided them exposure to leadership, knowledge of role responsibilities, and an understanding of what a leader is. Yet, these experiences remained separate to their development. Participant 10 stated: "I did the [club] for little bit and I was the treasurer. And that was a really cool experience." Membership in 4-H and FFA were also common responses, as were participation with teams, internships, or other work experiences.

Some participants talked about their current position as a steppingstone from a previous position. They talked about being a leader as something they have stepped into rather than have embodied. Participant 1 stated: "…with [club] I had to change and become more of a leader I guess... So, I'm not a natural born leader but with the [club] I am, it kinda seems like it comes naturally to me but it's not." These participants also did not seem personally engaged in their organizations.

Group Dynamics

CALS clubs and organizations vary greatly in structure and purpose, so as we expected, there were a breadth of perspectives regarding role delineation, teamwork, officer responsibilities, and the role and importance of advisors. Some participants exhibited an understanding of the collaborative process of leadership. "Everyone in our club has a large leadership impact…even though I have the title of president, that doesn't necessarily mean that I'm the top person of the totem pole in every aspect" (Participant 6).

Several participants referenced their focus on developing others as leaders. Ensuring the future success of members in their club or organization seemed important. For example, Participant 11 stated:

> I try to figure out a way to motivate them to make correct decisions or to help the team or organization as a whole instead of directing or managing, [I'm] there to inspire and motivate and give them the tools for success.

Delegation and teamwork were also a component of this theme. Participant 15 referenced the importance of sharing responsibilities, "a leader is making other people better and giving them opportunities to lead, and just another important part of being a leader is seeing the potential in others."

The importance of shared goals and values among club and organization members was referenced during interviews as well. Participants spoke about the need for individuals to collectively create and maintain a vision for the club. We noticed the participants that reported challenges in their club referenced a lack of common goals and an overall purpose for their organization. Participant 9 stated: "half of our club wants to be a judging team and… the other half wants to be a volunteer group. It's really hard to get both sides to agree on one thing."

Resources

Participants provided their perspective on the college's role in developing leaders and needs that exist therein. Several participants were not aware of resources available to them, and wanted more information about college resources, such as facilities and funding. Participants also made recommendations for leadership programming such as conferences, student leader discussion events, leadership seminars, and a speaker series for leadership development. Participant 11 stated:

> I think that's one thing that CALS doesn't do, is bring together the leaders and just have discussions or give them the opportunity to bounce ideas off each other within their organizations. I think that could have been very impactful for me as a leader.

Phase Two: Leadership Identities Influence on Views of Leadership

In phase two, we sought to answer the question "how do the leadership identities of student leaders in CALS influence their view on leadership and themselves as student leaders?" To do this, we scored meaning units individually on a scale of one to six based on the six stages of the LID model (Komives et al., 2006) provided in the rubric (see Table 2). We utilized descriptive statistics to calculate the mean score (*M*) and standard deviation (*SD*), and LID range scores. The LID scores ranged from 2.19 to 4.22 with a mean score of 3.18 and a standard deviation of .56 ($M = 3.18$, $SD = .56$). We used a cross case comparison between emergent themes and identified student leadership needs with their mean scores to explore thematic patterns for similarities and differences. The results are displayed in Table 3.

Table 3

Comparison of LID Scores to Emergent Themes and Identified Leadership Needs

	LID Scores		
Themes	2-2.9 ($n = 5$)	3-3.9 ($n = 11$)	>4 ($n = 2$)
Engaged Leadership	Leaders get things done with a hands-on approach	Opportunities for leadership roles increase leadership capacity	Leaders understand the role of followership
Table Continued			
Leadership Experiences	Experiences in a group make a leader	Leadership roles are past experiences	Leaders evolve in organizations
Group Dynamics	Event planning and emails	Role delineation and officer responsibilities	Development of others and shared goals

Resources	Tangible resources	Mentorship and training	Leadership programming
Leadership Needs	Funding, better club advisors, internal documents	Workshops on managing others, networking	Leadership retreats, speaker series, team dynamics training

Note. Scores are based on the mean of a participant's responses based on a scoring rubric.

Participants with LID scores that ranged between 2-2.9 estimating a transition between stage two and stage three of the LID model (Komives et al., 2006). They discussed engaged leadership by identifying leaders as those who use a hands-on approach to get things done. They considered their previous leadership experiences as being a part of a group and identified resources for leadership as tangible items, such as funding or event space. When commenting on group dynamics, they viewed the role of the leader as one who plans events and sends emails to the group. When asked about their leadership needs, they identified funding, better club advisors, and the development of internal transition documents as needs.

Those with LID scores ranging between 3-3.9 were estimated to be transitioning between stage three and stage four of the LID model (Komives et al, 2006). These students were beginning to communicate a relational leadership process, but still primarily focused on hierarchical views of leadership (Wielkiewicz et al., 2012). Their responses identified opportunities to practice leadership skills through positional roles as a need for increased leadership capacity. They attributed past experiences in leadership roles as their primary leadership experiences and identified mentorship and training as their primary resources for success. When discussing group dynamics, they often commented on the need for role delineation and a breakdown of officer responsibilities as the primary function of their role in the group. They identified CALS leadership needs as workshops to manage others and networking opportunities for student leadership to meet and discuss the challenges they face.

Participants who scored on LID score higher than 4 held relational views of leadership and were most likely in stage four or higher on the LID model (Komives et al., 2006). These participants communicated an understanding of their role as both leaders and followers within the group and saw their role in group dynamics as an individual who promotes the development of others and the shared goals of the organization. When commenting on their leadership experiences, they emphasized their evolution in organizations to different leadership roles, whether positional or not and often talked about their role as an agent of change. They expressed desire for leadership programming and identified leadership retreats, speaker series on leadership, and team dynamics training as leadership needs.

Conclusions, Implications, and Recommendations

This study provides an example for other colleges of agriculture to consider how they can analyze the development of leadership. The design of the study allowed for us to understand the experiences students have had while exploring their leadership development journey and level. In addition, this study included a specific context and environment. Participants identified inputs and environments (Astin, 1993) through past and current experiences to provide a baseline for understanding potential outcomes of their on-campus student leadership roles. The overall conclusions can be drawn to provide a framework for future college-based explorations.

We conclude student leaders in CALS at a university in the pacific northwest view leadership and themselves as leaders through four emergent themes: engaged leadership, leadership experiences, group dynamics, and resources. We also observed the potential for employability skill development through participants discussion of essential skills including communication, team, leadership, and

decision making/problem solving (Crawford & Fink, 2020). Further, participants referred to several personal and leadership competencies they had developed (Easterly et al., 2017), including being dependable, taking initiative, and communicating clearly.

It was evident that a transition from a hierarchical to a systemic or relational view of leadership existed based upon leadership identities and participants discussion on their views of leadership and themselves as leaders. Because we did not assign a specific LID stage to each participant (Komives et al., 2009) but rather used a LID score to assess transitions in leadership views, we observed varying views between participants with different observed LID scores. Through the quantized data, we were able to observe differing perspectives across emergent themes from a hierarchical view to a more relational view of leadership. We propose our method of determining LID scores as a method for assessing leadership identity development based on the LID model.

In our results, we did not consider any individuals as still being solely in stage one and two of the LID model, which is consistent with expectations for students in college. Wagner (2011) also reported these stages often occur prior to entering college. Additionally, participants made comments related to components of stages five and six, but no individuals scored a mean LID score of five or higher. Considering many of our participants were towards the end of their college careers, we expected to find higher LID scores for some participants. However, Wagner (2011) also suggested that transgression between stages four, five, and six can be difficult to assess and may be more indicative of a single stage that varies in different contexts. Therefore, we recommend further research to assess differences and a greater understanding of stages four, five, and six.

In addition, we did not include demographic information as a part of our analysis. In a recent study, McKenzie (2018) explored leadership identity development of female students and concluded that as females progress through the phases, they begin to recognize gender and race in relation to societal issues. Notably, the participants in our study did not discuss their personal identity in relationship to their leadership identity at all. They reported previous organizational affiliation, experiences in prior leadership roles, and mentors, similarly to Priest et al. (2018), as common contributors of leadership identity development. This calls for further research on the intersectionality of personal identities with LID.

Rosch and Coers (2013) reported agriculture students exhibited lower levels of growth in leadership capacity from their involvement in on-campus organizations. These students also reported lower levels of participation in campus-wide leadership training events and engagement in socio-cultural discussions (Rosch & Coers, 2013). Students did not discuss participating in any campus-wide leadership training or complex social issues. However, participants did identify a need to network with other student leaders in the college. We corroborate Rosch and Coers (2013) recommendation to engage agricultural students in discussions with differing viewpoints around social issues and suggest agricultural colleges provide their own student leadership training opportunities while simultaneously promoting campus-wide opportunities. Additionally, many of our participants mentioned having been active in FFA or 4-H prior to college. This may indicate a need to help undergraduate students recognize the importance of continual leadership development capacity past youth experiences. We recommend other researchers collect data on prior involvement in FFA, 4-H, and other youth-serving organizations better understand this phenomenon.

Leupold et al. (2020) revealed a relationship between self-efficacy and leadership development programs; however, their study also indicated on-campus jobs, study abroad programs, and other intentional experiences had a comparable effect. We did not collect demographic information on these

other intentional experiences, nor were they commonly discussed by our participants. Additional research should include these factors to better understand the total picture of leadership identity development. Additionally, exploring these other intentional experiences would serve as basis for considering if the impact of leadership development is through program participation or other experiences. In this study, we provided an avenue for assessing your own university's leadership development programming needs and propose the importance of individualized initiatives specific to those needs.

With a long history and foundation seeded in outreach and extension efforts, colleges of agriculture have a responsibility to ensure they are providing students with a holistic education that challenges students to be socially responsible leaders prepared to advance the agricultural and natural resources industry. The participants in the study identified the need to reconsider current CALS efforts to develop intentional programming focused on the student's environment and contexts. Owen (2012) suggested effective leadership programs are grounded in theory, have well-defined organizational values, involve stakeholders at all levels, include partnerships across the campus, and emerge from their environments (Owen, 2012). Therefore, the next step in this process should be to engage stakeholders in reviewing the findings and strategic planning to define program values and identify opportunities for partnerships.

In the planning and design process, we recommend incorporating student leader's views on leadership, identified needs, and their current environment's influence on leadership capacity. Based on their LID scores, most participants communicated hierarchical rather than relational views of leadership. Based on this, we recommend grounding a leadership program and leadership education efforts in the SCM and LID models. The SCM focuses on driving positive change through development of self, group, and community (HERI, 1996). The LID model provides a framework for guiding this journey by outlining sets of learning outcomes and indicators of a student's transitional needs from one stage to another (Komives et al., 2009). By intertwining these two models with the mission of the college, we can develop a solid foundation to prepare socially responsible leaders.

One challenge will be developing leadership programming appropriate for undergraduates in a variety of different stages related to the LID model. Based upon our findings, we caution against making assumptions about the LID of a student based on their experiences or opportunities to practice leadership through student organizational roles. Further, we acknowledge leadership growth is complex and requires creating environments that facilitate opportunities for all CALS students. We recommend colleges of agriculture create opportunities to engage students at different LID levels by providing support through mentors and peer leaders. Mentors can positively reinforce transition through LID stages, while challenging students to consider greater purpose and ethical views (Dugan & Komives, 2007; Priest et al., 2018). Additionally, peer leaders, who have already developed a relational view of leadership, can support the development of other student leaders (Haber, 2011). This provides opportunities for growth for peer leaders and program participants, alike.

The next step in our research will be to utilize this baseline data to inform the development of a survey to receive input from a randomized sample in the CALS. This survey will incorporate questions regarding student knowledge and participation in both college- and university-wide leadership development opportunities. We recommend future research also considers barriers to participation in agricultural leadership programs. As it is important for the program to emerge from the environment, it is also important to ensure the environment is inclusive of all students. Additionally, we recommend other institutions carry out similar studies to further understand their individualized needs in relation to their environment and context and are evaluating current programs to ensure leadership development

is occurring as intended. Understanding the environment and context in relation to leadership development needs can provide valuable insight into ensuring current and future leadership initiatives are impactful (Owen, 2012) and colleges of agriculture are meeting the need of preparing their students more effectively for their future careers (Crawford et al., 2020).

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