

Examining the Leadership Attitudes and Beliefs and Leadership Identity Development of
College of Agricultural and Life Sciences Undergraduate Students

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Introduction and Theoretical Framework

Colleges of agriculture (COA) are responsible for providing their graduates with both the content knowledge and employability skills necessary for success in their chosen field and advancement of the agricultural industry (Crawford & Fink, 2020). One of these necessary tools is leadership. However, not all opportunities and experiences aimed at developing leadership in undergraduate students are equally effective. For example, a study conducted by Rosch and Coers (2013) uncovered COA students were more involved in organizations and held more leadership positions but had less leadership growth than their peers. Cletzer et al. (2021) revealed most agricultural leadership courses originate from the industrial rather than ecological paradigm, even though the paradigm shift occurred in the late 1990s (Rost, 1997). The industrial paradigm focuses on positional leadership, skills, traits, competencies, or behaviors and often romanticizes the leader (Allen et al., 1999). The ecological paradigm focuses on approaches to leadership aimed at working collaboratively and solving complex problems (Western, 2019). In order to prepare students to meet the needs of the agricultural sector and solve current challenges, which are continually increasing in number and complexity, it is important to understand current ecological perspectives of COA students prior to developing effective leadership experiences.

The leadership identity development (LID) model (Komives et al., 2005), an ecological perspective, demonstrates the evolution of leadership identity through six stages and is strongly influenced by an individual broadening their view of leadership, self-development, group influence, developmental influence, and one's changing view of self in respect to others (Komives et al., 2006). Komives et al. (2006) suggests that most college students are between stages three and four. The transition from stage three to four is where views, theoretically, should change from hierarchical to a more systemic view. This systemic view of leadership is rooted in the ecological paradigm (Avolio et al., 2009; Wielkiewicz, 2000).

A previous qualitative study by Pratt et al. (2019) on the LID model and influences on the development of current student leaders in the College of Agricultural and Life Sciences (CALs) at the University of Idaho (UI) revealed that student leaders often relate their LID to their roles as engaged leaders, previous leadership experiences, group dynamics, and the resources available. This study also suggested that student leaders have varying perspectives related to hierarchical and systemic views of leadership; future research with a larger sample of students with current, prior, and no leadership role experience was recommended to assist in further understanding the LID and views of CALs students (Pratt et al., 2019). Therefore, we developed this census study to continue examining the LID of students and how their hierarchical and systemic views relate to their development. Additionally, this study aimed to assess relationships between demographics and college experiences and the LID and leadership views of students.

Methods

We conducted a census survey of all undergraduate students enrolled in the CALs at the UI in the Spring of 2021. The survey took approximately 15 minutes to complete and included 10 demographic and involvement items, four open-ended questions related to the LID model, and the Leadership Attitudes and Beliefs Scale-III (LABS-III). LABS-III is 28-item instrument that has previously been used with college students and assesses views on leadership through hierarchical and systemic thinking scales (Wielkiewicz, 2000). We created four open-ended

questions related to the LID model from the results of the previous study conducted by (Pratt et al., 2019) requested that participants provide two to three sentence responses. To analyze the four open-ended questions and create LID scores, we quantized the qualitative data using a rubric (Pearce, 2012) and scored each response on a scale of one to six based on the six stages of the LID model. We calculated inter-coder reliability at 76%. We combined the scores of the four open-ended questions for a cumulative LID score. We used descriptive statistics and correlations to analyze the data.

Results

We used descriptive statistics to describe the leadership attitudes and beliefs and LID scores of CALS undergraduate students. Students reported hierarchical thinking scores from 25.00 to 69.00 with a mean of 45.38 ($SD = 8.61$). Systemic thinking scores ranged from 45.00 to 70.00 with a mean of 60.90 ($SD = 0.50$). Cumulative LID scores ranged from 2.00 to 5.17 with a mean of 3.48 ($SD = 0.50$). We used Pearson correlations and one-way ANOVAs to examine the relationships in leadership attitudes and beliefs and LID scores based on demographics and student experiences. The results of the one-way ANOVAs based on demographics did not indicate significant differences. The Pearson correlations are reported in Table 1.

Table 1

Correlations between Age and Involvement and LABS-III of CALS Undergraduate (n = 121)

	Hierarchical Thinking	Systemic Thinking	LID Scores
Age	-.274*	.096	-.084
Clubs & Org Involvement	-.109	-.121	-.065
CALS Clubs & Orgs Invol.	-.111	-.187*	.007
Leadership Positions Held	-.115	-.121	-.113
CALS Lead. Positions Held	-.150	-.145	-.032

Note. Significance at the $*p < .05$ level, 2-tailed.

Conclusions, Recommendations, and Implications

Based on the results of our analysis, CALS undergraduates have mid-range hierarchical and relatively high systemic views of leadership. This indicates that students have ecological perspectives centralized around holistic considerations for interwoven concepts within organizations (Wielkiewicz, 2000). However, they also still hold on to the industrial premise of hierarchical thinking to some degree and view leadership from a top-down model with stock placed in positions and titles. The combination of LABS-III and LID scores on the surface suggest that continued hierarchical thinking could be hindering movement to a LID score of 4 or higher and a more ecological perspective of leadership. We observed slight negative correlations between hierarchical thinking and age and systemic thinking and involvement in CALS clubs and organizations. For age this indicated that the older the student the lower their hierarchical thinking score, which is consistent with the evolution of LID. However, the observation related to systemic thinking indicates that the more clubs or organizations in the college a student is involved in the lower their systemic thinking, which calls for a reconsideration of how organizations and clubs can be modeling systemic and ecological perspectives of leadership. This leads to the recommendation to continue developing new opportunities that provide an ecological perspective of leadership. It also calls for future longitudinal research to assess the LID of COA students throughout their time at the university to assess growth.

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