

Identifying Inputs to Leadership Development within an Interdisciplinary Leadership Minor

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Abstract

Researchers conducted a qualitative analysis of students' experiences while enrolled in an interdisciplinary leadership minor with the intent to determine programmatic inputs that spur leadership development. Based on students' reflections, three domains of programmatic inputs for leadership development within the minor were identified. These domains include leadership development at the individual level, leadership development at the group level, and leadership development through experiential learning. Themes within these three domains are also identified providing additional insight into the participants' experiences while enrolled in the leadership minor. Based on these findings, researchers proposed a framework for leadership development within an interdisciplinary minor. Recommendations for future research and application of the proposed framework are discussed.

Introduction and Theoretical Framework

College graduates with leadership skills are highly marketable (Astin & Astin, 2000) and one of the functions of post-secondary institutions is to develop marketable employees (Council for the Advancement of Standards in Higher Education [CAS], 2012). Consequently, post-secondary institutions have increased leadership opportunities for students (Dugan, 2006; Engbers, 2006). In the process of providing leadership opportunities, institutions should consider effective strategies for the development of leadership among students (Astin & Astin, 2000). This study explores students' perceptions of an interdisciplinary leadership minor with a

goal to identify effective programmatic and curricular inputs for leadership development.

Leadership minors are designed as a place within the academic curriculum for students to engage in leadership development (Johnson White, 2006). Leadership minors offer students an opportunity to explore leadership theories, develop leadership skills, and further their leadership development through a variety of in-class and out-of-class experiences. Interdisciplinary leadership minors are unique in that they are transcript visible, provide students pursuing various degrees a chance to engage in leadership development, and provide a variety of coursework options from multiple disciplines within the university. While the literature on general leadership development among college students is vast, there is very little attention given to the leadership development of college students through a leadership minor (Haber-Curran & Tillapaugh, 2013). Furthermore, little research has been conducted specific to leadership minors to determine programmatic standards and inputs necessary for leadership development. However, an exploration of the literature on leadership development among college students outside the context of leadership minors will provide a foundation from which to consider the findings of our study.

An investigation into the components of successful college leadership programs, supported by the Kellogg Foundation, identified “hallmarks” of leadership development programs (Zimmerman-Oster & Burkhardt, 1999). Included in these hallmarks are elements of problem solving, self-assessment and reflection, skill-building, mentoring, targeted training, student recognition, and community involvement. Additional research supports these hallmarks, specifically self-assessment (Albert & Vadla, 2009; May, Hodges, Chan, & Avolio, 2003; Zimmerman-Oster & Burkhardt, 1999) and individual reflection (Burbach, Matkin, & Fritz, 2004; Zimmerman-Oster & Burkhardt, 1999).

Similarly, Astin and Astin (2000) identified necessary components of college student leadership development. Their recommendations were based on their theorized purpose of leadership programs at the college level, “to empower students to become agents of positive social change in the larger society” (2000, p. 19). Based on their defined purpose for college student leadership development, Astin and Astin identified experiences necessary for leadership development at the post-secondary level. Astin and Astin posited that leadership development programs should include aspects of self-knowledge, authenticity, empathy, commitment, competence, group projects, collaboration, shared purpose, division of labor, disagreement with respect, and an environment of learning. Additional research supports the recommendation that leadership development at the college level requires group learning (Allen & Hartman, 2009; Engbers, 2006).

Based on the literature surrounding leadership development at the college level, our conceptual framework involves those identified components of leadership development as a reference for leadership development in the context of a leadership minor (see Figure 1). Due to the lack of literature surrounding leadership development in leadership minors, the framework does not specify programmatic inputs necessary for leadership development through a leadership minor.

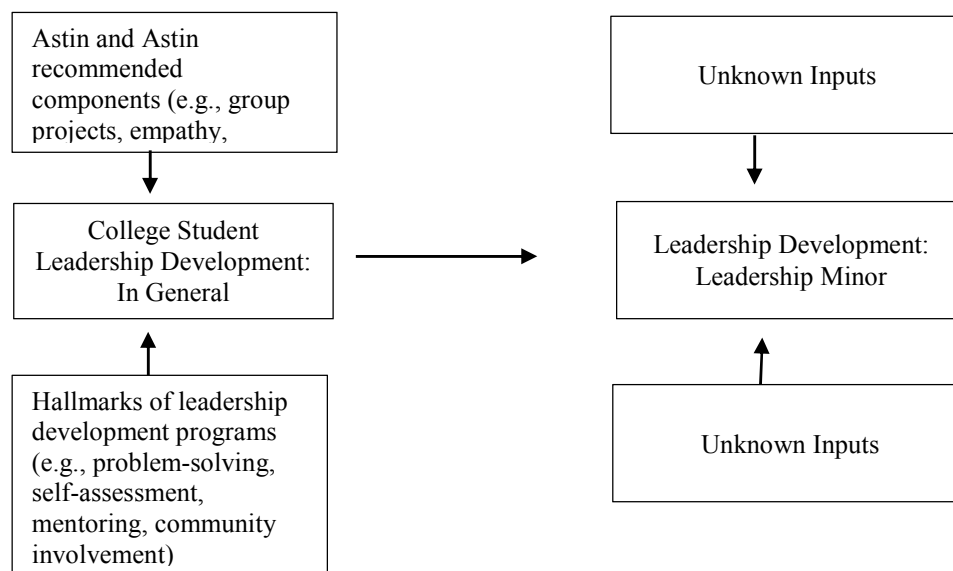


Figure 1. Conceptual framework developed for this study (Astin & Astin, 2000; Zimmerman-Oster & Burkhardt, 1999).

This research was conducted by analyzing students' experiences while enrolled in an interdisciplinary leadership minor at Oregon State University. The leadership minor at Oregon State University was developed with a goal to provide college students with a variety of learning opportunities and experiences for the purpose of leadership education and development. The Council for the Advancement of Standards (CAS) recommended that leadership programs be intentional, coherent, theory-based, pluralistic, and responsive to individual needs (Roberts, 1997). In 1997, the Council further encouraged universities to offer formal leadership opportunities for students specific to: leadership education, leadership training, and leadership development. All three areas are distinctive and necessary for holistic leadership growth. Thus, the leadership minor was designed to be centered on *leadership theory* (education), *trait/skill development* (training), and *application* (development). The inclusion and combination of all three areas is vital for the development of a comprehensive leadership program and aligns with prior research (Astin & Astin 2000; Brungardt, Voss, Greenleaf, Brungardt, & Arensdorf, 2006; Goertzen, 2009; & Northouse, 2010). Based on the CAS recommendations and prior research, the leadership minor was designed around the three signature areas with an added emphasis on team interactions and a capstone course which facilitated a team-based learning environment.

Through examining the perceptions of lived experiences of leadership minor students, this study intends to further explore a leadership minor program by identifying effective programmatic inputs and structures that foster leadership development. This research project is intended to meet Area I, Priority I of the National Leadership Education Research Agenda to "explore curriculum development frameworks to enhance the leadership education transfer of learning" (Andenoro et al., 2013, p. 5).

Purpose/Research Question

We sought to analyze and describe students' experiences within an interdisciplinary leadership minor at Oregon State University. The goal of the study was to explore students' perceptions of their own developmental experiences in an effort to identify programmatic inputs and structures that fostered leadership development within a leadership minor. The following research question guided the development and execution of this research study: How do leadership minor students perceive leadership development through their own experiences in the leadership minor?

Methods/Procedures

In this qualitative study, we utilized a descriptive and interpretive research design, which included "description, interpretation, and understanding in the form of recurrent patterns, themes, or categories" (Merriam, 1998, p. 34). According to Creswell (2008) "The focus of qualitative research is on the participants' perceptions and experiences, and the way they make sense of their lives" (p. 195). Participants in this study shared their experiences and perceptions of the leadership minor through elicitation of written reflections, a student portfolio, a focus group interview, and a questionnaire.

Data Collection

Participants' thoughts and reflections were collected in raw written form through the investigation and analysis of student portfolios and reflections as well as a written questionnaire. We also collected data through a focus group interview, which was later transcribed for analysis. Data were collected during the last month of the capstone course when students submitted their final portfolio and reflections and were asked to complete the questionnaire and participate in the focus group interview.

Student artifacts. The student portfolio consisted of information about students' capstone project and experiences, ideas about leadership and their leadership philosophy, future leadership goals, and an exit reflection about the leadership minor. The portfolio project was designed to allow students to share their experiences, goals, and perceived learning from their time in the leadership minor and the capstone class. Students completed their portfolios throughout the term of the capstone course.

Questionnaire. The questionnaire consisted of three close-ended questions and three open-ended questions. Two questions were demographic in nature, one related to career goals, and three related to the students' perceived value and importance of the leadership minor. Students completed the questionnaire during the last week of the capstone course.

Focus group interviews. We captured the interpretations of the participants' experiences and perceptions through the transcription and analysis of a semi-structured focus group interview. The interview was conducted by the two lead researchers of the study. One author of this study was the moderator and interacted with the students during the interview while another author took notes. We used an interview guide protocol that divided the interview into topics with initial wording of broad questions carefully selected and a list of topic areas to be explored (Brenner, 2006). The focus group interview consisted of a series of questions that addressed topics about the leadership minor in the areas of education and coursework, application and

experiences, leadership training, and programmatic feedback. Broad questions were asked that addressed the pre-planned topics of interest with some follow up questions to elicit more details and promote data saturation. We planned and designed the interview question prompts and outline for possible discussion topics ahead of time to allow participants to share their thoughts about their range of experiences in the leadership minor.

Research Quality

This study followed the eight overarching criteria for research quality suggested by Tracy (2010) for “excellent qualitative work” (p. 837). Tracy (2010) proposed that “quality qualitative research is marked by a worthy topic, rich rigor, sincerity, credibility, resonance, significant contribution, ethics, and meaningful coherence” (p. 839). Throughout the research process and this narrative, we have attempted to address these quality characteristics.

To insure sincerity and transparency, we acknowledged and were sensitive to the inclinations of researcher biases and tried to provide thorough accounts of the methods employed. One way we increased transparency was through an audit trail; another was collecting and documenting all phases of the research process. Throughout the research, the documents were coded *P* for portfolio, *F* for focus group interview, and *Q* for questionnaire. All participant data were provided with a page number to link back to the original data. All data were saved in original, traceable form and all transcripts were transcribed verbatim.

Merriam (1998) suggested that it is important for researchers to share their views, backgrounds, and a subjectivity statement in order to identify how their personal experiences, feelings, and beliefs may affect the research and to provide readers with a lens through which to consider the study’s credibility. Our epistemological views are constructivist in nature. We are all currently employed in teacher education in a field of youth leadership development. Two researchers have conducted research on the topic of leadership. One researcher was very familiar with the participants as the director of the leadership minor and instructor of the capstone course. This researcher was not involved in the focus group interview. One researcher interacted minimally with the students in the leadership minor through his role as a guest speaker on various occasions. We acknowledge the possibility that these experiences and views may have influenced how we interacted with and analyzed the data.

Credibility was sought through member reflections on our interpretations of the data and through triangulation. We presented the data and analysis thereof to participants to allow for member checks. Transcripts of the focus group interview and a draft of the analysis were provided to two respondents for feedback, corrections, and clarifications. Both agreed with our data and analysis. To insure the highest level of credibility while meeting rigorous standards, we used two different types of triangulation in this study: data triangulation and triangulation through multiple analysts. Data triangulation was achieved through careful analysis of students’ written reflections, student questionnaires, and focus group interview. Multiple researchers were utilized in the analysis of data and although we all analyzed the data separately, we combined each analysis to result in the final findings. We also utilized constant comparisons of interview data and field notes to ensure congruence among all researchers. To further enhance credibility,

we attempted to use rich, vivid participant descriptions and concrete details in this narrative while giving voice to all the participants in the study.

Participants

The participants for this study were purposefully selected. The criteria for selection were undergraduate students enrolled in the final capstone class of the leadership minor during the Spring 2013 term. The participants represented the first cohort from Oregon State University to graduate with the new leadership minor. There were seven students enrolled in the capstone class and all agreed to participate in this study. All but one of the participants in the capstone class had completed all of the requirements for the minor at the time we conducted the study. The participants consisted of six females and one male. We found that seven participants were sufficient for the study as data saturation did occur.

The participants were all given pseudonyms to protect their identities. Since there was only one male student, he was given a female pseudonym so that his comments were not readily identifiable. Four of the seven participants were majoring in the College of Business, two in the College of Science, and one in the College of Public Health and Human Sciences. All of the participants self-identified as white and ranged in age from 20 to 29 years old. It is noteworthy to mention that the leadership minor was just finishing its first full year of availability to students. As a result, all of the program completers, and current participants, could be described as early adopters.

Data Analysis

We used an interpretive design for this qualitative study to analyze participants' experiences and perceptions regarding the leadership minor. Content analysis protocols were used to analyze the data. The participants generated personal reflections concerning their experiences with the leadership minor through written reflections, the questionnaire, and the focus group interview. We recorded and transcribed the one hour focus group interview while capturing the data from the written questionnaire and the student portfolios in raw form. These reflections, either in the raw form or transcribed from interviews, were analyzed and coded for thematic content. We analyzed the data to determine how the participants perceived leadership development through their experiences in the leadership minor.

Content analysis. Coding protocols as outlined by Auerbach & Silverstein (2003) were utilized to perform the content analysis. We analyzed the collected data and coded for thematic content. Data were analyzed through an initial reading of the data with consideration to the research focus and the theoretical and epistemological lenses of the researchers. The process of coding was performed using open, axial, and selective coding (Strauss & Corbin, 1994). In open coding we identified descriptive categories relating to leadership inputs. We recorded repeating ideas and grouped them into logical and coherent categories to form organized themes. We then performed axial coding where we connected categories with their subcategories, focusing on identifying patterns to look for evidence of emerging themes. Finally, selective coding was performed where we interacted with the data in a more abstract level of analysis (Strauss & Corbin, 1994).

Limitations

Qualitative studies are more suited for few cases with many variables (Creswell, 2008). Therefore, this research study is limited in scope because of the small number of participants we studied in greater depth, which limits the generalizability of the findings (Maxwell, 2005). While this study may have the potential to be transferable to other settings, we make no attempt to generalize beyond the seven students enrolled in the leadership minor capstone course. Furthermore, we did not include students in their entry level phase of the minor as participants. Therefore, the findings only represent the perceptions and experiences of those students at completion of the minor and may not encompass the perceptions or experiences of all of the students in the leadership minor. Finally, the data collected from the focus group may not equally represent the views of all the participants. We acknowledge that not all of the participants were equally articulate, perceptive, or willing to share and therefore may not have contributed as much as other more dominant or articulate participants. However, through data triangulation, member checking, and through the moderator's encouragement for participation, we feel the data is representative of the perceptions and experiences of the participants in the study.

Findings

The research question for this study was to determine how students perceive leadership development through their experiences in the leadership minor. The themes that emerged from the data were grouped into three domains, leadership is developed at the individual level, leadership is developed at the group level, and leadership is developed through experiences.

Domain 1: Leadership is Developed at the Individual Level

Within the domain of leadership development at the individual level, two themes emerged as input variables of leadership development: (a) self-awareness and self-reflection, and (b) personal relevance to life and goals. The leadership minor students seemed to value the individual component of leadership development (see Table 1). The participants described how the leadership minor helped them learn and become more aware of their own strengths, weaknesses, and abilities. They shared their own experiences with self-assessments and self-reflections in regard to their own level of leadership. Many students shared the personal weaknesses they became aware of as a result of the leadership minor and how it led them to develop goals to become stronger leaders.

Leadership development occurred for participants on an individual basis where concepts were personally relevant and transferable to their individual lives and goals. Many times the participants described how the concepts and skills learned in the leadership minor were relevant to their lives or future goals either personally or professionally. Participants also stated how individualized activities and assignments helped them focus on their own individual leadership development. They appreciated the assignments and activities that allowed them to reflect and apply leadership concepts and skills to their personal situations.

Table 1

Themes within the Domain: Leadership Development at an Individual Level

Themes	Participant Quotations
Self-awareness and self-reflection	<p data-bbox="568 296 1443 409">“I definitely think I learned more about my strengths and my weaknesses and I think I’ve used my weaknesses and turned them into strengths” (Amy, F1).</p> <p data-bbox="568 441 1443 556">“Through reflection and observation of my personal leadership, I am finding new ways to adapt to different styles and situations” (Ellen, P39).</p> <p data-bbox="568 588 1443 703">“I feel like the minor has made me very self-aware of who I am and what I want and how I go after it and then incorporating my strengths into that.” (Hana, F1).</p> <p data-bbox="568 735 1443 850">“I can’t even begin to explain how much I have learned about myself...I learned more about myself than any other class” (Tina, P27).</p>
Personal relevance to life and goals	<p data-bbox="568 882 1443 955">“I can apply [leadership concepts] to my career which is how the minor has prepared me professionally” (Sue, P68).</p> <p data-bbox="568 987 1443 1060">“These skills...have undoubtedly made me more prepared as I continue my journey towards the leader I strive to be” (Reba, P7).</p> <p data-bbox="568 1092 1443 1178">“The leadership minor...was not only relevant to my current life but [will] also guide me in my future” (Amy, P11).</p>

Domain 2: Leadership is Developed at the Group Level

Within the domain of leadership development at the group level, three themes emerged as input variables of leadership development: (a) variety of group interactions, (b) valuing diverse opinions, and (c) learning from others. The data confirmed that leadership development involved a group component (see Table 2). The participants shared their experiences in the leadership minor in terms of leadership development through groups and interactions with others. They reported learning through a variety of settings. For example, students discussed how going through the leadership minor as a cohort made learning more effective while others shared experiences of working with others they had never met to establish a sense of teamwork. They discussed their appreciation for the flexibility of the leadership minor, which gave them opportunities to interact with a variety of people in a variety of settings.

Participants reported the leadership minor helped prepare them to work and interact with other people and to appreciate and value diversity in others. They spoke frequently about communicating with others, especially those with differing viewpoints. Participants shared how the minor gave them opportunities to practice interacting with a diverse group of people and

helped them develop skills in conflict resolution. Furthermore, participants expressed how they learned and developed leadership principles and skills from their peers in the leadership minor. They spoke about collaboration and teamwork with their classmates and peers in the leadership minor and how it provided opportunities to engage in group leadership. These group interactions seemed to be an essential component of the leadership development process.

Table 2

Themes within the Domain: Leadership Development at the Group Level

Themes	Participant Quotations
A variety of interactions	<p>“The leadership minor has prepared me for team opportunities by giving me hands-on experiences with teams that were unfamiliar” (Ellen, P50).</p> <p>“I enjoyed that we went through the minor core classes with the same group of people, making the learning structure more efficient... Going through the leadership minor with the same people... made the team dynamic more effective” (Sue, P68).</p>
Valuing diverse opinions	<p>“We learned through the minor... techniques and ways to handle conflict. You could just see the diverseness of the different ways that people think to greater understand why they think like that, and to appreciate it” (Hana, F5).</p> <p>“I learned how to work with other students on a different level” (Ellen, P46).</p> <p>“I strive to recognize and value team members; people become committed to each other in addition to the team’s goals” (Reba, P6).</p>
Learning from others	<p>“I’ve learned by working with Reba... to listen to people” (Tina, F5).</p> <p>“I feel inspired by those around me who have shown what my potential to lead could look like in a few years” (Ellen, P39).</p>

Domain 3: Leadership is Developed through Experiential Learning

Students enrolled in the leadership minor were required to participate in an experiential learning component to meet the requirements of the minor. The experiential learning component could involve leadership experiences in any of the following categories: service learning, research, or internship. The majority of the students participating in this interview completed an internship to meet the requirements of the leadership minor. When referring to experiential learning within the minor, most of the students shared about their internship experiences (see Table 3). Participants would refer most often to specific skills they developed as a result of these different experiences. The leadership experiences of observing, practicing, and being involved in leadership through co-curricular experiences, specifically internships, seemed to be important building blocks for leadership development among these students.

Table 3
Leadership Development through Experiential Learning

Theme	Participant Quotations
Internship and co-curricular experiences	“I learned throughout the summer how important it is to delegate tasks” (Amy, F3).
	“I learned in my internship how to give individuals chances to lead others and how to empower others” (Ellen, F4).
	“I learned [through the work experience] conflict resolution, transformational leadership, relationship building, communication, and adaptability” (Fran, P30).

Conclusions, Implications, & Recommendations

Students’ reflections identified leadership development through the domains of individual experiences, group experiences, and involvement in experiential learning. Based on the findings of this study, we proposed a framework for leadership development within an interdisciplinary leadership minor (see Figure 2). Reflections from students in the leadership minor support a conceptualization of leadership development within a leadership minor that includes opportunities for relevance and reflection through individual experiences, opportunities to engage with others to gain multiple perspectives through group interactions, and valuable experiential learning through internships and co-curricular opportunities. Not only has this research led to a clearer picture of the leadership minor experience, it has also developed our understanding of applying the work of general leadership development research (Astin & Astin, 2000; Zimmerman-Oster & Burkhardt, 1999) in the context of a leadership minor.

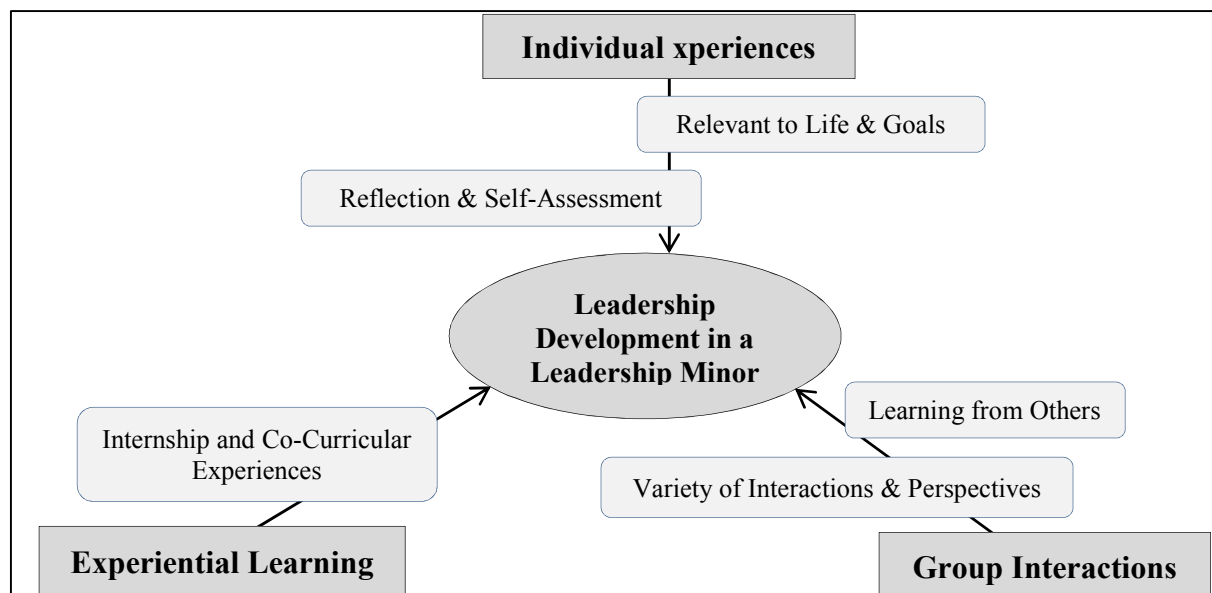


Figure 2. Proposed framework for leadership development in an interdisciplinary leadership minor.

Astin and Astin (2000) proposed a comprehensive framework for leadership development. One of the hallmarks of this framework is an emphasis on developing leadership skills individually. Our study adds depth to this recommendation, as students lauded self-reflection, observation, and individual projects as important individual leadership development experiences in a leadership minor. Additionally, students highlighted the experience of participating in self-assessments which provided feedback to them in relation to their own leadership strengths and weaknesses. The value of these individual experiences appeared to be strengthened when made applicable to students' future goals. These findings suggest individual learning experiences in a leadership minor should be flexible, allowing students the opportunity to align experiences with their own personal situation and future orientation.

Throughout the interviews, portfolios, and questionnaires, students discussed the benefit of learning together through the leadership minor. Students identified these collaborative experiences as developing many leadership characteristics including: skills in conflict management, an emphasis on valuing others, and the importance of diverse backgrounds in a group setting. These findings support the application of group learning in a leadership minor. Directors of leadership minors should consider how to actively recruit students from a wide variety of backgrounds and provide ample opportunities for networking and collaboration. Furthermore, students in this study discussed their experiences working closely with students from different majors while enrolled in the leadership minor. Students appreciated the opportunities they had to learn from one another in a way they normally would not be able to in a more homogenous major or minor. The diversity of majors was not a limiting factor to students' participation in the minor, as Hana shared "[the cohort] offered intimacy where people feel comfortable to share" (F10). We recommend leadership minor programs investigate methods for building a diverse cohort environment as a way of improving the group learning of students.

A number of theoretical frameworks in leadership and education include recommendations of leadership development through involvement, including the Social Change Model (Higher Education Research Institute [HERI], 1996); Experiential Learning Theory (Kolb, 1984); Social Learning Theory (Bandura, 1977); and the Student Involvement Theory (Astin, 1999). In our study, students identified a variety of experiences including internships, service learning, and jobs that helped contribute to their leadership development. Through these experiences students identified a variety of leadership skills being developed. Additionally, students spoke about their experiences as an avenue in which to experiment with or try-out the knowledge they had come across in the classroom. Therefore, our findings support the use of experiential learning in a leadership development program to increase the leadership skills of students as well as a method for providing students a real-world learning lab in which to apply the leadership knowledge gained through coursework. We recommend current and future leadership programs consider the student benefits of experiential learning and structure their programs to encourage students to purposefully pursue experiential involvement.

The leadership development recommendations (Astin & Astin, 2000) and hallmarks of leadership development programs (Zimmerman-Oster & Burkhardt, 1999) support our findings and the idea that students involved in leadership development should be given opportunities to develop leadership in a variety of settings and through a variety of experiences. Furthermore, leadership minor programs need to be purposeful in their student development and focus on the

three core areas of leadership development at the individual level, group level, and through experiential learning opportunities.

This study examined student perceptions of a leadership minor in terms of leadership development. We recognize the scope of this study encompassed only the inputs of a leadership minor with little regard for outcomes. Although we acknowledge student leadership outcomes can be affected by programmatic inputs, we did not intend to examine that relationship in this study. Given the dearth of research pertaining to leadership minors, we recommend future research continue to bridge the gap and focus on both programmatic inputs and student outcomes. This will aid our discipline in our ability to identify and transfer best practices from one program to another.

Although, leadership minor programs may be unique in structure and purpose compared to other college level leadership programs, we suggest the findings of this study may have implications for other types of leadership development programs and educational programs in general. This qualitative study provided students a voice regarding instructional practices at the university level. Perhaps the findings of this study are relevant across disciplines and the findings suggest a guide for preferred instructional practice among college students. For example, is it possible that students in other course subjects could improve learning through more self-reflection, group interactions, and co-curricular learning experiences? Regardless, we suggest the focus of any leadership development program center around meeting the leadership development needs of students through appropriate inputs.

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Author Biographies

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Tyson Sorensen is a graduate student within the Department of Agricultural Education and Agricultural Sciences at Oregon State University (OSU). Tyson teaches a variety of graduate and undergraduate courses in leadership and agricultural education. Tyson’s research interests include exploring the concepts of work-life balance and work-family conflict among secondary agriculture teachers as well as the influence of non-work factors on agriculture teachers’ efficacy and commitment in the teaching profession.

Jonathan J. Velez, PhD, is an Associate Professor of Agricultural Education and Leadership at Oregon State University (OSU). Jonathan currently holds the Bradshaw Agricultural Sciences Leadership Education endowment and oversees the OSU Leadership Minor. Jonathan teaches both graduate and undergraduate leadership courses and his research interests include motivation, teaching methods, leadership development, and effective methods of leadership assessment.