

Examining students' perceptions of a high-impact agricultural learning experience during the COVID-19 pandemic

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### Introduction/Conceptual Framework

Agricultural leadership programs can increase participants' understanding of agriculture as well as leadership and professional skills (Abbingtion-Cooper, 2005), and out-of-class experiences can help students gain leadership and professional development skills and become high-functioning members of the workforce (Kuh, 2008). Experiential learning, high-impact learning, and adaptive leadership are all concepts that incorporate an active experience followed by a reflective process and can be used in leadership programs to prepare participants for leadership (Heifetz & Linsky, 2013; Kolb, 1984, Kuh, 1991). As organizations are faced with increasingly complex problems, adaptive leadership and problem-solving utilizing multiple perspectives is needed (Nelson & Squires, 2017). The Matador Institute of Leadership Engagement (MILE) is a competitive, three-semester, undergraduate leadership and professional development program in the College of Agricultural Sciences and Natural Resources at Texas Tech University designed to give each 14-student cohort high-impact learning experiences. MILE seeks to develop participants' personal and professional skills while exposing them to the key issues that affect local, state, and national agriculture and policy. Participants in MILE's first cohort (2018-2019) increased their leadership and professional skills, gained a better understanding of themselves and others, increased their level of knowledge of the agricultural industry, broadened their professional network, and enhanced their concept of leadership (Smith et al., 2019). The second MILE cohort began in January 2020, but the COVID-19 pandemic significantly impacted the cohort's experience, resulting in fewer in-person experiences and more online meetings to adhere to university safety measures. Because MILE relies on travel-based learning experiences, evaluation of students' perceived leadership and professional development during the altered instructional methods was needed to assess the program's effectiveness. This study examined participants' perceptions of an agricultural leadership and professional development certificate program taught with high-impact instructional methods during the COVID-19 pandemic.

### Methods

This case study replicated the efforts by Smith et al. (2019), which evaluated the program's first cohort, with the 14 students of MILE's cohort II in 2020 and 2021. Participants were undergraduate students majoring in one of the six undergraduate academic departments within CASNR. Data collection included interviews and written reflections from participants. Interviews asked open-ended questions regarding participants' perceptions of MILE, while written reflections provided in-depth information from each participant regarding their experiences in the program. Student reflections were required assignments in each of MILE's three courses. Qualitative data analysis of the interviews and reflections helped identify significant statements and quotes (Creswell et al., 2007). The interview guide and codebook designed by Smith et al. (2019) was used to ensure trustworthiness (Lincoln & Guba, 1985). NVivo 12.0 was used to analyze and code the interview data, and thematic analysis methods were used to develop themes from the coded data.

### Findings

Four themes were identified: 1) *networking*, 2) *exposure*, 3) *confidence/self-awareness*, and 4) *quality of content*. Participants said engagement with industry professionals helped establish and broaden their professional *network* in the agricultural industry and illustrate the importance of

networking. Students highlighted their ability to secure internships and potential employment opportunities because of the program. Peer networking within the cohort was emphasized. They learned from each other after observing how fellow members engaged in program sessions and handled the challenges of the pandemic. The positive effects of *exposure* to diverse industries, sectors of agriculture, and relevant issues were identified by participants and helped students identify specific fields they wished to enter after graduation. Students said they were surprised how much they learned about other industry sectors during the program. One student said, “I feel like I have a much broader awareness of different areas of the industry. The MILE Program has really broadened my horizons.” Students said they experienced an increase in *confidence* and *self-awareness* after exposure to industry leaders and observing different leadership styles in action. Participants said they grew their leadership and professional development skills. One student said, “I feel more confident in who I am as a person and as a leader.” Students experienced increased *self-awareness* and validation as a leader as they gained a better understanding of how they are perceived by others. One student said, “I’ve been able to learn that even though I do have a different leadership style than others, I’m still able to use my leadership style to make a big impact.” Participants said the program’s *quality of information* was important and highlighted the quality of the industry and professional leaders they were able to engage with, despite meeting virtually. One student said, “Although it was virtual, our meeting with the mayor of Amarillo was extremely impactful, because of the influence she had on me.”

### **Conclusions/Recommendations/Implications**

Although the MILE Program was altered due to the COVID-19 pandemic, members still benefited from valuable industry networking opportunities, exposure to new industry sectors and leaders, increased confidence and self-awareness, and quality of content. Analysis of the participants’ interviews and reflections suggests MILE achieved its goal of developing the personal and professional skills of members while exposing them to key agricultural issues, despite the shift from an in-person, travel-based instructional modality to virtual meetings. While students said they would have rather met in-person, the virtual modality was not viewed as a limiting factor in their high-impact, real-world learning. The emphasis on content quality suggests the use of high-quality speakers and information in a virtual learning environment can be as valuable as the program’s cornerstone travel experiences experience (Priest & Clegorne, 2015). The process of experiencing new ideas, engaging with new people, and then reflecting is more important than the designed outcomes (Kolb, 1984). These active learning experiences have broad-reaching positive effects on undergraduate students’ critical thinking skills (Kilgo et al., 2015). Students benefited from witnessing leaders handling pandemic challenges and learning problem-solving skills from their actions (Heifetz & Linksy, 2013). Engaging with adaptive leaders can be a transformative experience while learning from the accelerated change (Lowder, 2009). The unexpected changes to the program due to COVID-19 forced students to adapt and grow personally and as leaders (Escehnbacher & Fleming, 2020). Students’ exposure to real-time adaptive leadership will be beneficial as they enter the workforce and solve complex problems (Nelson & Squires, 2017). Leadership programs should focus on creating engaging learning opportunities with high-quality speakers who offer impactful information, regardless of the modality. Further research and evaluation of the MILE Program should continue to learn how it impacts graduates during their careers and ensure the program graduates stay connected to the MILE Program and CASNR. The importance of adaptability should be incorporated into the program’s curriculum.

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