

Benefits of Service Learning Events at an HSI

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Introduction

The importance for shared experiences for students to bond and grow has been established. Deci and Ryan (2008) suggest students have the opportunity to bond and make connections to their experiences to become intrinsically motivated to learn. One such shared experience can be program specific or course-based service learning events (Roberts, et al., 2016). Service learning has emerged as a valuable tool for enhancing student learning outcomes and fostering civic responsibility within agricultural education programs (Roberts et al., 2019). By integrating classroom instruction with hands-on service experiences, students not only acquire theoretical knowledge but also develop practical skills and a deeper understanding of real-world agricultural issues (Roberts, 2006; Mckibben et al., 2024). In agricultural mechanics courses, service learning plays a crucial role in bridging the gap between classroom instruction and practical application (Chumbley, et al., 2019). There is a high demand for those skilled in agricultural mechanics and agricultural mechanics has a higher discrepancy between reported abilities and self-efficacy (Granberry et al., 2022; Solomonsen & Wells, 2024).

Theoretical Framework

The Experiential Learning Theory (ELT), developed by David Kolb (1984), provides a robust framework for understanding how service learning events can benefit undergraduate student development. It emphasizes the importance of the learner's active engagement in the learning process, making it highly relevant for studies focusing on service learning. The learning structure purported by ELT (Kolb, 1984) is grounded in four learning modes – concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE). Any one mode, or combination of modes, can govern learning at any given moment (Kolb, 1984).

Objectives

The purpose of this study was to describe the perceived benefits to students' who coordinated two service learning events as part of their agricultural mechanics courses.

Methods

This descriptive study was conducted at Texas A&M University-Kingsville (TAMUK), a southern Hispanic Serving Institution. Students ($N = 48$) at Texas A&M University-Kingsville are required to take a total of four agricultural mechanics courses as part of their general agriculture or agricultural teaching certification degree programs. During the Spring semester of 2024, as part of AGSC 4350 Collective Leadership in Agriculture course, with events included a CDE, the Applied Agriculture Engineering Contest; and the TAMUK Agricultural Mechanics Show.

Both of these events' post activities involved a whole class reflection day. The inclusion of a post activity reflection is considered best practice in the use of service as a high impact experience (Andreu et al, 2020). This was in the form of a structured interview. The question was formulated ahead of time and the respondent is expected to answer in terms of the

interviewer's framework and definition of the problem (Guba & Lincoln, 1981). The following question was asked for the interview, *Describe the most important skills you gained from coordinating the Applied Agricultural Engineering Contest and Agricultural Mechanics Show?*. The answers of students were recorded and transcribed after for evaluation.

Findings

The following four themes emerged after evaluation of the student responses through extensive constant comparative coding and data analysis from the research team. While there were similar codes expressed from multiple participants, unique perspectives and responses are included to reinforce the findings.

1. **Leadership**, The theme of *Leadership* was a prevalent response provided by 75% of participants.
2. **Organization & Time Management**, The theme of *Organization & Time Management* was widespread response provided by about 50% of participants in this study.
3. **Communication & Teamwork**, The theme of *Communication & Teamwork* was a prevalent response provided from 30% of participants.
4. **Technical Skills**, The theme of *Technical Skills* was a response provided by 10% of participants.

Conclusions

This study explored the skills students identified as most important that they gained after having coordinated two agricultural mechanics-based service learning events. The findings, derived using the constant comparative method for data analysis, identified four major themes: Leadership, Organization & Time Management, Communication/Teamwork, and Technical Skills. Each theme highlights the multifaceted benefits of service learning events for students.

Leadership emerged as the most significant skill. Students expressed an enhanced understanding of leadership, citing their ability to apply leadership skills in various roles during the events. This indicates that service learning fosters a sense of ownership and responsibility, crucial for personal and professional development. Half the participants emphasized the importance of organization and time management. Students noted that these skills are essential for maintaining efficiency and productivity, both in the classroom and in their future careers. The diverse roles within the service learning events required students to develop and apply these skills effectively. This suggests that service learning enhances students' abilities to collaborate and communicate in professional settings.

The four themes identified in the study (Leadership, Organization & Time Management, Communication & Teamwork, and Technical Skills) align closely with the components of ELT. Students' leadership skills were further developed through concrete experiences and reflective observations. Workshops and seminars on leadership principles, conflict resolution, and decision-making can complement the hands-on experiences. Emphasizing organizational skills through the application and training for service learning events will benefit students in agricultural science. The use of service learning as a teaching and development tool should be expanded. Offering a wider range of service learning projects can cater to the diverse interests

and career goals of students. Collaborating with different agricultural organizations and industries can provide varied and comprehensive learning experiences for students.

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