Examining Barriers to Implementing Supervised Agricultural Experiences and Work-Based Learning in Urban Agriscience Programs in Ohio: A Case Study

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Introduction

Agricultural education prepares students for agricultural careers through classroom instruction, leadership development, and experiential learning. Historically rooted in rural communities, access to land, industry partnerships, and community support have been staples in providing learning opportunities for agricultural students (McBride, Talbert, & Mackey, 2023). Central to this model of career preparation are Supervised Agricultural Experiences (SAEs) and work-based learning (WBL), which support real-world skill development and career readiness (National FFA Organization, 2018). Although agricultural education has expanded its presence in urban settings, access to SAEs and WBL remains uneven compared to rural counterparts. Rural students are more likely to have access to these hands-on learning opportunities, while urban districts have programmatic barriers specific to their environmental contexts (Phipps et al., 2008).

Urban agriscience educators often operate in under-resourced schools where infrastructural support and systemic barriers complicate the implementation of SAEs and WBL. This includes limited space and resources, reduced parental involvement, and insufficient professional development tailored to implementing a 3-circle agricultural program in urban contexts (Salem et al., 2023). These challenges contribute to reduced participation in experiential learning opportunities for urban students. While addressing all the factors that limit SAE and WBL in urban settings, this research aims to investigate specific professional development needs of urban agriscience educators concerning the implementation of SAEs and WBL.

Theoretical Framework

This study is grounded in a constructivist framework that views learning as an active, context-driven process shaped by educators' experiences and environments. Constructivist learning theory posits learners actively construct knowledge, and construction is deeply intertwined with social and cultural contexts (California Learning Resource Network, 2025). Through the constructivist lens, the researchers can examine how urban agriscience educators engage with professional development opportunities that respect autonomy, draw on their existing knowledge and focus on their individual experiences (Kolb, 1984; Knowles, 1980). Professional development (PD) is positioned as the primary mechanism for supporting urban agriscience educators in implementing SAEs and WBL and is most effective when it is contextualized, collaborative, and practice oriented. This theoretical framework will be used to examine urban educators' experiences and inform strategies that would support teachers to reduce systemic barriers and expand equitable access to meaningful SAE and WBL opportunities.

Methods

The purpose of this research was to better understand the challenges of urban agriscience educators in Ohio to implement SAE and WBL opportunities in their urban programs. The researchers implemented a qualitative case study to meet this purpose. The researchers used data triangulation through semi-structured interviews, researcher field notes, and a review of relevant program documents. Semi-structured interviews served as the primary data source, allowing the researcher to follow a set of open-ended questions while remaining flexible to investigate

participants' experiences in greater depth (Jacobs & Fergerson, 2012). Interview questions were informed by existing literature and were designed to elicit in-depth responses through two to three guiding questions, consistent with qualitative single-case study recommendations (Patton, 2015; Yin, 2018; Creswell & Poth, 2018). Questions focused on perceived challenges, available program support, and the influence of student engagement, parental involvement, and district policies on SAE and WBL accessibility in urban contexts.

Interviews were conducted via Zoom, audio recorded and transcribed for analysis. Field notes were collected during interviews to capture contextual details and researcher observations that supported data interpretation. Data was analyzed using thematic analysis to identify patterns and shared themes related to the implementation of SAEs and WBL in urban agricultural education programs (Braun & Clarke, 2006).

Results/Findings

Data analysis revealed three primary themes describing perceived barriers Ohio urban agriscience educators face when implementing SAEs and WBL: 1. *program logistics*, 2. *program misconceptions*, and 3. *program support*. The first theme highlighted program logistical challenges, such as a lack of transportation for off-campus experiences, classroom scheduling conflicts, and reduced instructional time, aligning with prior research discussing how urban settings often lack the physical and logistical resources found in rural programs (Salem et al., 2023; Rubenstein et al., 2016). The second theme focused on the misconceptions about the agricultural education programs, which existed among students, families, and school personnel, who often associate agriscience solely with traditional farming and undervalue its scientific, technical, and career-focused scope. The third theme described a lack of program support from administration, exacerbated by frequent leadership turnover. Participants noted that frequent leadership turnover often results in inconsistent support or lack of understanding regarding agriculture program requirements, reiterating systemic issues cited in the literature (Marzolino & McKim, 2024).

Conclusions/Implications

This study examined how urban educators can adapt the three-circle model of agricultural education to fit their unique environments, particularly by creating on-campus supervised agricultural experiences and work-based learning opportunities when off-site options are unavailable. The findings reinforced the value of experiential and adult learning theories in shaping both student engagement and professional development for educators. These findings aligned with the current literature which identify barriers for urban teachers to adapt traditional SAEs and WBL models in their programs. Supporting urban educators in implementing context-specific alternatives requires professional development that addresses challenges such as building collaborations with administrators, advocating the value of career-technical education to communities who may not be aware of opportunities in the agricultural industry, and building an advisory committee and community partnerships. Equity-centered, practical professional development for urban agriculture teachers can expand access to meaningful SAEs and WBL and empower urban students to pursue agricultural careers often viewed as inaccessible.

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