

## Contributions of SBAE to Scholarship of Agriculture Education and Lifelong Learning

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## **Contributions of SBAE to Scholarship of Agriculture Education and Lifelong Learning**

### **Introduction/Need for the Study**

Agriculture education (AgEd) has a longstanding tradition in the history of mankind. During the hunter–gatherer era—before civilization, our antecedents learned about agriculture through practice and taught themselves through oral stories while seated around a woodfire as a family (Ikendi, 2023). The knowledge shared out of their experiences came to be known as indigenous knowledge—a driving force to agricultural development today. AgEd is more than teaching Ag; the process of teaching defines it as education emphasizing the delivery methods, roles, and expectations of educators and learners (Williams, 1991). AgEd starts early in elementary school, taking both formal through regular school curriculum and informal through extension programs. School-based AgEd (SBAE) concept combines classroom instruction, entrepreneurship, and leadership (Thoron & Barrick, 2022). In Uganda, in our study area, SBAE, has been adopted mainly through school gardening (Banige et al., 2024; Ikendi, 2022; Ikendi, Retallick et al., 2023; Nonnecke et al., 2015). This study inquired into SBAE contributions to the scholarship of AgEd broadly defined (Franz, 2019); aligned with the U.S. national AgEd research values of nurturing positive youth development and international development initiatives (AAAE, 2023).

### **Literature Review**

Three values define scholarship in higher education institutions including teaching, research, and engagement—anchored in the U.S. landgrant philosophy (Franz, 2019). These values encompass providing or sharing knowledge, creation of new knowledge or new use/application of old knowledge, and documentation of accomplishment. Earlier, Boyer (1990) contended that “the work of the professor becomes consequential only as it is understood by others” (p. 23); sharing knowledge grows the AgEd profession. In engagement through extension and outreach, Franz (2019) also commends institutions to think beyond faculty promotion to integrate the core values of the scholarship into their mission statements. This engagement bridges the gap between research institutions and the community, promoting reciprocal learning (Ikendi et al., 2023). The scholarship of teaching requires investing in intellectual powers, approaching teaching as a form of scholarly work; requiring systematic investigation into the topics related to learning goals, how learning occurs, and the learning environment. Although the landgrant values are a preserve of the U.S., they have been spread across the globe. For instance, through a theory of change in Uganda where the Center for Sustainable Rural Livelihoods (CSRL)—a U.S.-based organization, implementing livelihoods programs in partnership with ISU-UP and Makerere University with the goal of ending hunger (Ikendi & Retallick, 2023; Ikendi, Owusu et al., 2023).

### **Methods**

We founded our inquiry on a constructivist orientation seeking to understand how SBAE contribute to AgEd scholarship, deconstructing such new knowledge inductively (Crotty, 1998). A case study methodology was adopted to gather data from SBAE educators through interviews (Creswell & Poth, 2018). Educators were purposively for their engagement in SBAE in seven schools (five elementary and two high schools) supported by CSRL. We interviewed eight educators, including three school teachers and five program extensionists. During interviews, caution was taken when probing further for clarification while taking notes and marking the relay period and moments of silence that could signify a change of theme, discomfort, or need for clarification. In analysis, we first engaged in a dialogue with our data, reading the transcripts word by word and line by line; seeking to recognize and classify commonalities across the SBAE contributions and perspectives that appeared distinct among them. Analytic memos were written

reflecting on emerging unique ideas/themes that were shared among us to guide in peer-checking and discussions. Findings are presented in themes with succinct descriptions and verbatims to account for educators' views of the identified SBAE contributions (Lincoln & Guba, 1985).

### **Findings**

Ten themes (SBAE contributions) emerged, including learning, skills, knowledge, academics, career, leadership, teamwork, civic responsibility, intercultural competence, and school growth. The learning theme intertwined developing students' skills and knowledge. Extensionist 1 explains that ... *students at school might be looking at a tomato ... might not know how much inputs are required but involving themselves in the SBAE programs, whereby they are doing the theory, doing the budgeting, learning how to make a business plan ... they get the knowledge.* Learning directly influences academics as Teacher 1 explained, students ... *use the practical knowledge to answer their theoretical examinations ... Sincerely speaking, the best performing pupils in SBAE are also performing well in their academics.* Leadership in SBAE programs is vital, Extensionist 2 explains that ... *we have student leaders ... like President, ... Mobilizer ... These leaders lead their fellow students while implementing SBAE activities, a good foundation for helping the students to develop their leadership skills.* On intercultural competence, Teacher 2 explained ... *SBAE is a good platform for our pupils to work with people from different cultural backgrounds. When [our] students see American students participating agricultural activities, they also start appreciating agriculture.* In civic responsibility, Teacher 1 explained ... *pupils have income generating projects. For example, [student] from [village] sells vegetables to the community members ... [is] self-reliant and responsible in the community.* Related to school growth, Teacher 3 explained that ... *food can be produced in the school at all times ... Also CSRL program donated ... classroom buildings, staff quarters ... leading to school growth.*

### **Conclusions**

The themes we identified and explained by the SBAE educators demonstrate that the three values of the U.S. land grant system complement each other. Moreover, the proponents of these values aligned them to support each other, for instance, doing research and disseminating it to both schools and the community promotes formal learning and informal learning through extension. Students benefit from the triad relationship in learning from themselves, educators, and the community which aggregates into intercultural learning and motivation to appreciate the role of agriculture beyond the production of food and fiber to leadership and civic responsibility. Rural schools have also developed from engaging with organizations and higher education institutions.

### **Implications and Recommendations**

Globalization has made the world become one in all spheres including education systems. The exportation of the U.S. land grant model abroad including in Uganda exemplifies the need to develop global competence among learners. We have seen the three landgrant values complement each other moreover diffusion of innovations requires conducting a needs assessment if a technology is to succeed. An example we have observed in this study is the adoption of school gardening, a teaching approach that was based on the agreement between the U.S. and Ugandan institutions and the stakeholders that it could lead to student learning and also provide food to schools and community thereby reducing undernutrition (Nonnecke et al., 2015). Innovative ideas like in postharvest have been researched by program service-learners promoting discoveries and adoption of those innovations for community development (Ikendi & Retallick, 2023; Ikendi, Retallick et al., 2023) which ties the learning, discovery, and engagement.

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