

Liberian Teachers' Intention to Implement Student-Centered Instruction Post-Training

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Introduction and Theoretical Framework

As Liberia recovered from the second civil war, it encountered significant struggles that included job shortages, a fragile economy, and a rise in a poor and at-risk youth population (Blattman & Annan, 2011; Ministry of Agriculture, 2007). Liberia has also historically depended on foreign aid, which has increased significantly since the war ended in 2003 (UNDP, 2020). These socio-economic conflicts, and the dependency on other nations for aid, have potential negative implications for the future of Liberia (Rutherford et al., 2016). One solution is to transform Liberia's economy into one based on agriculture (Blattman & Annan, 2011; Rutherford et al., 2016). Yet, to make this transition effective, there is a need to instill agricultural knowledge in the population. To address these needs, AgriCorps, a non-governmental organization, designed and offered a teacher training in accordance with its mission to establish school-based agricultural education (SBAE) programs in developing countries (AgriCorps, 2020a). Through student-centered teaching, entrepreneurship, and leadership, SBAE seeks to help students develop knowledge and skills necessary to be citizens who possess awareness about natural and agricultural resources (AgriCorps, 2020b; FFA, 2020; NAAE, 2020). Thus, one of the objectives of this training was to prepare teachers to offer student-centered instruction to focus on individual student learning (Collins & O'Brien, 2003).

For our study, we employed the diffusion of innovations theory (Rogers, 2003), focusing on the role of change agents and early adopters in the diffusion process. In the context of our study, Liberian SBAE teachers act as *change agents* when they establish SBAE programs focused on student-centered instructional strategies to introduce innovative agricultural practices and skills. In turn, children and youth become *early adopters* as they return to their homes and communities, bringing with them the innovative agricultural ideas, skills, and approaches to issues learned in the classroom. Our goal is that this process will provide Liberia with the tools to reduce at-risk populations, decrease dependence on foreign inputs, and catalyze the development of its economy.

Purpose and Objectives

The purpose of this study was to evaluate the intentions of Liberian teachers who attended a training about SBAE to implement student-centered instruction strategies into their SBAE programs. Three specific objectives guided our study: (1) measure teachers' intentions to use information about student-centered instruction, (2) identify the factors that influence teachers' intentions to use student-centered instruction and, (3) identify the specific strategies that teachers plan to implement. The objectives of this study align with the AAAE National Research Agenda, Priority 6, Question 1: *How do agricultural leadership, education, and communication teaching, research, and extension programs impact local communities?* (Roberts et al., 2016).

Methods

AgriCorps staff offered the first of three teacher trainings in 2020. The six-day training program was repeated in Bong, Lofa, Montserrado, and Nimba counties. The purpose was to introduce the SBAE model, leadership development through 4-H, and student-centered teaching strategies to the participants. Using the randomized controlled trial method, 200 Liberian schools were identified and grouped by demographic and agricultural similarities. Communities within these clusters were identified, and 100 treatment schools and 158 teachers

were selected. This study is part of a larger study that is funded by multiple federal grants and seeks to explore the long-term economic outcomes of SBAE implementation. During the training, participants were instructed on student-centered instructional strategies used to engage with the students in the classroom and non-classroom settings. This included e-moment strategies, the importance of giving good directions, and classroom management. Teachers were also taught about modern psychological techniques that benefit students' learning, such as developing their critical thinking skills and engaging them in reflections. A pre and post-questionnaire was used for data collection. To measure teachers' intention to use student-centered instructions, participants answered a question related to intent to change measured on a 5-point scale. To identify the specific strategies that teachers plan to implement, their responses to a single open-ended question were analyzed using descriptive and inferential statistics.

Results

Objective 1. Participants in our study intend to use the student-centered instruction information provided in the training ($M = 4.8$, $SD = 0.5$) with 82.5% ($n = 127$) responding that they definitely will use it. This variable was coded from 1- "I definitely will not use this information" to 5- "I will definitely use this information."

Objective 2. A correlation and multiple linear regression analysis were conducted with three variables (years teaching, attendance at a previous workshop, and level of schooling). In total, 16% of the variance of the teacher's intention was predicted by these three factors. All correlations in the model were positive, however, the only positive factor was their attendance at previous training ($\beta = .41$, $p < .001$). The years teaching ($p = .706$) and level of schooling ($p = .652$) variables were not significant predictors.

Objective 3. Participants were asked, *What specific strategies do you plan to implement immediately following this training?* In an open-ended format on the post-training survey. Eighty-four percent of participants ($n = 133$) indicated they plan to use strategies that help students stay engaged and connected with the class and with each other. These strategies include incorporating interactive activities with music and body movements as well as inquiry strategies. Also, they mentioned they would use activities to develop leadership skills and to encourage students to engage in agricultural activities.

Conclusions and Recommendations

The results of this study revealed evidence that Liberian teachers who attend a training about student-centered teaching in the context of SBAE have the intention to implement student-centered instructional strategies in their classrooms. However, the data indicates that the only significant factor influencing teacher's intention to implement these strategies was attendance at previous trainings or workshops. Therefore, to help participants develop additional student-centered instructional strategies, we find it necessary to provide continuing education and professional development opportunities, as research suggests that this has positive implications for student learning outcomes (Yoon et al., 2007). Aligned with these recommendations, two upcoming trainings focusing on agricultural innovations, school demonstration farm implementation, and home entrepreneurship projects will be offered. Through these trainings, teachers will continue to be instructed on student-centered teaching practices and how these strategies will help them increase the effectiveness of their programs for the benefit of their students and the community.

References

- AgriCorps. (2020a). *Learn more*. <https://agricorps.org>
- AgriCorps. (2020b). *How*. <https://agricorps.org/how/>
- Blattman, C., & Annan, J. (2011). Reintegrating and employing high risk youth in Liberia: Lessons from a randomized evaluation of a landmine action and agricultural training program for ex-combatants. *Global CWD Repository*. <https://commons.lib.jmu.edu/cisr-globalcwd/1172>
- Collins, J. W., 3rd, & O'Brien, N. P. (Eds.). (2003). *Greenwood dictionary of education*. Greenwood Press.
- FFA. (2020). *Agricultural education*. <https://www.ffa.org/agricultural-education/>
- Ministry of Agriculture. (2007). *Republic of Liberia, Ministry of Agriculture: Comprehensive assessment of the agriculture sector (Vol. 1)*. <http://www.fao.org/3/a-ai562e.pdf>
- NAAE. (2020). *What is agricultural education?* <https://www.naae.org/whatisaged/>
- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds.). (2016). *American association for agricultural education national research agenda: 2016-2020*. Department of Agricultural Education and Communication.
- Rogers, E. M. (2003). *Diffusion of innovations*. Free Press.
- Rutherford, D. D., Burke, H. M., Cheung, K. K., & Field, S. H. (2016). Impact of an agricultural value chain project on smallholder farmers, households, and children in Liberia. *World Development*, 83, 70–83. <https://doi.org/10.1016/j.worlddev.2016.03.004>
- UNDP. (2020). *About Liberia*. <https://www.lr.undp.org/content/liberia/en/home/countryinfo.html>
- Yoon, K. S., Duncan, T., Lee, S. W.-Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement*. <http://ies.ed.gov/ncee/edlabs>