Georgia SBAE Teacher Perceptions of the Three-Circle Model of Agricultural Education

[1]Jeff Wilson, Christopher A. Clemons[2], Jason D. McKibben[3], James R. Lindner[5]

Author Note

Jeff Wilson

Christopher A. Clemons: https://orcid.org/0000-0001-9879-0888

Jason D. McKibben: https://orcid.org/0000-0003-2080-202X

James R. Lindner: https://orcid.org/0000-0002-1448-3846

Correspondence concerning this article should be addressed to Christopher A. Clemons, Associate Professor of Agricultural Education, Auburn University, AL 36849; email: cac0132@auburn.edu

[1]Jeff Wilson is a high school agricultural education teacher at Veterans High School, 340 Piney Grove Road, Kathleen, GA 31047. Jeffrey.wilsom@hcbe.net

[2]Christopher A. Clemons is an Associate Professor of Agricultural Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, cac0132@auburn.edu

[3]Jason D. McKibben is an Assistant Professor of Agricultural Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, jdm0184@auburn.edu

[5]James R. Lindner is a Professor of Agricultural Education in the Department of Curriculum and Teaching at Auburn University, Haley Center, Auburn, AL 36849, jrl0039@auburn.edu

Georgia SBAE Teacher Perceptions of the Three-Circle Model of Agricultural Education

Introduction

Agricultural education plays a crucial role in preparing students for agricultural careers. To attract and educate students effectively, the three-circle model provides a valuable framework for experiential learning. The three-circle model is a fluid framework for school-based agricultural education teachers (SBAE) in developing comprehensive curricula for student growth and skill attainment (Croom, 2008; Hughes & Barrick, 1993; Phipps et al., 2008; Shoulders & Toland, 2017). Classroom instruction, FFA, and supervised agricultural experiences (SAE) foster experiential learning opportunities grounded in tangible learning outcomes and develop students' problem-solving skills that will benefit them regardless of their future vocation (Baker et al., 2012). The model embodies the ideal balance of classroom instruction, laboratory experiences, and participation in the FFA organization (Croom, 2008; Lewis et al., 2012; Talbert et al., 2007). Using the model, generations of SBAE teachers have aligned their program development with varied levels of instructional success. SBAE teachers recognize balancing the instructional expectations of the model can be challenging. Specifically, SBAE teachers can experience misalignment of student success in the presentations of the model. Potential challenges include instructional time allocation, SBAE teacher preference when areas are overemphasized, and misalignment of needs in response to program goals, student interest, and community expectations (Hasselquist et al., 2017). This investigation sought to understand the varied outcomes of success experienced by SBAE teachers when implementing the three-circle model framework.

Conceptual Framework

The conceptual framework for this study relied on Borich's (1980) needs assessment model and was guided by the individual components of the model: 1) FFA, 2) Classroom Instruction, and 3) SAE. Borich (1980) suggested that the gap between a person's current skills and the requirements of their profession can identify gaps in knowledge or application. Borich explained that this process involves comparing the current affairs with the desired or ideal state.

Methods

We framed the analysis of this study using a commonly accepted non-experimental, quantitative construct research design. To better understand SBAE teachers' self-efficacy when incorporating the three-circle model in their programs, two research objectives guided this investigation: 1) Identify and describe SBAE teacher's perceptions of how their instructional time is distributed in the classroom, FFA, and SAE activities, and 2). Investigate and analyze if SBAE teachers' perceptions of individual components of the three-circle model change over time. The population for the study consisted of all Georgia SBAE teachers (N=487) using a publicly available membership database. A random sample (n=101) of the population was calculated using Cochran's (1997) sample size (n = 101), yielding a 100% response rate. To address the potential for frame error, Auburn University faculty and FFA state staff reviewed the Georgia membership roster for appropriateness. We developed an electronic instrument in

Qualtrics consisting of three components: 1) SBAE teacher perceptions related to tasks associated with each of the areas of the model, 2) SBAE teacher instructional time devoted to each component of the model, and 3) participant characteristics. The analysis of the tasks within each component of the three-component model included the mean weighted discrepancy scores (MWDS) to evaluate the differences and discrepancies within the tasks of the three-component model. The MWDS for all responses were assessed using Likert-type interval measurement scales (1 = Very Important/Competent, 2 = Important/Competent, 3 = Somewhat Important/Competent, 4 = Of Little Importance/Competence, and 5 = Not Important/Competent) were used to determine participant responses. Participants completed the instrument in February 2024, and three reminder emails (Dillman et al., 2014) were sent to increase the response rate.

Findings

Objective one addressed the model's framework to investigate SBAE teachers' perceptions of their instructional time distribution between classroom instruction, FFA, and SAE activities. Analysis of MWDS indicated Georgia SBAE teachers reported FFA activities were the most critical component (M=4.47, SD=.32) of their three-circle model instruction, SAE supervision was second (M=4.11, SD.14), and classroom instruction ranked third (M=4.08, SD=.32). Competency analysis found that Georgia SBAE teachers were most competent in FFA activities (M=4.18, SD=.20), classroom instruction (M=4.00, SD=.18), and SAE supervision had the lowest total competency score (M=3.90, SD=.13). Objective two investigated SBAE teachers' perceptions of individual components compared to teaching experience (< 5 years, 6-10 years, 11-15 years, 16-20 years, and > 20 years). The Kruskal Wallis test evaluated the distribution of change between groups. The SAE component of the three-circle model was significant when analyzing for change in perceptions related to teaching experience (H4 = 10.80, p =. 03).

Conclusions, Implications, and Recommendations

Participants reported that FFA activities are the most significant component of the three-circle model. Georgia SBAE teachers reported minimal professional development needs in SAEs. Classroom instruction was the least important component of the three-circle model, and participants reported that most instructional tasks had no benefit for them as teaching professionals. This finding is of particular concern. Without classroom instruction, FFA and SAE would not be possible. SBAE teachers in this study did not recognize the importance of the instructional process. This finding may highlight a seldom discussed concern with FFA instruction: Is FFA instruction supplanting contextual classroom instruction in agricultural education? Participants recognized the importance of the FFA program for students, as it offers competitive opportunities, skill development, and career pathways. Significant differences between SAE, FFA, and classroom instruction were evident between teaching experience groups. This study highlights the variable nature of student SAE projects, particularly challenging younger teachers. The local community's resources and opportunities greatly influence SAE options, which vary significantly between rural and urban settings. Over time, teachers become more comfortable with SAE projects as they see their benefits for students and the community.

References

Baker, M. A., Robinson, J. S., & Kolb, D. H. (2012). Aligning Kolb's experiential learning theory with a comprehensive agricultural education model. *Journal of Agricultural Education, 53*(4), 1–13. https://doi:10.5032/jae.2012.04001

Borich, G. D. (1980). A needs assessment model for conducting follow-up studies. *The Journal of Teacher Education, 3l*(3), 39-42. https://doi.org/10.1177/002248718003100310

Croom, D. B. (2008). The development of the integrated three-component model of agricultural education. *Journal of Agricultural Education, 49*(1), 110-120. https://doi:10.5032/jae.2008.01110

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed mode surveys: The tailored design method (4th ed.).* John Wiley & Sons Inc.

Hasselquist, L., Herndon, K., & Kitchel, T. (2017). School culture's influence on beginning agriculture teachers' job satisfaction and teacher self-efficacy. *Journal of Agricultural Education, 58*(1), 267-279. https://doi.org/10.5032/jae.2017.01267

Hughes. M., & Barrick, R. K. (1993). A model for agricultural education in public schools. *Journal of Agricultural Education, 34*(3), 59-67. https://doi:10.5032/jae.1993.03059

Lewis, L.J., Rayfield, J, & Moore, L.L. (2012). Supervised Agricultural Experience: An examination of student knowledge and participation. *Journal of Agricultural Education, 53*(4), 70-84. https://doi:10.5032/jae.2012.04070

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. (2008). *Handbook in agricultural education in public schools.* (6th ed.). Delmar.

Shoulders, C. W., & Toland, H. (2017). Millennial and non-millennial agriculture teachers' current and ideal emphasis on the three components of the agricultural education program. *Journal of Agricultural Education, 58*(1), 85-101. https://doi.org/10.5032/jae.2017.01085

Talbert, B. A., Vaughn, R., Croom, D. B. (2006). *Foundations of agricultural education*. Professional Educators Publications.