

**Elementary Agricultural Education in Practice: Insights from School-Based Observations
and Teacher Interviews in Georgia**

Jessica Boone, jess.boone@uga.edu

Jason Peake, jpeake@uga.edu

University of Georgia Agricultural Leadership, Education & Communication

405 College Station Rd, Athens, Ga 30602

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Introduction

Elementary Agricultural Education (EAE) has expanded in Georgia following state-level policy support; however, limited research has examined how EAE is enacted within the day-to-day realities of elementary schools. Existing scholarship has largely focused on curriculum initiatives or agricultural literacy outcomes, with less attention given to how teachers navigate instructional time, resources, and institutional constraints when implementing agriculture in elementary contexts (Bailey, 2021; Champagne, 2021; Helm, 2024). Without insight into lived practice, efforts to define program quality or scale EAE risk misalignment with elementary school realities (Talbert et al., 2022). This study addresses this gap by examining how EAE is implemented at the school level through classroom observations and teacher interviews.

Theoretical Framework

This qualitative inquiry was guided by sociocultural theory and pedagogical content knowledge, which conceptualize learning and instruction as socially situated and mediated by interaction, teacher expertise, and school context (Shulman, 1986; Vygotsky, 1978). Together, these perspectives frame Elementary Agricultural Education as a context-dependent instructional practice shaped by teachers' adaptation of agricultural content and experiential learning to meet elementary learners' developmental needs.

Methods

This study was conducted as part of a larger sequential exploratory mixed methods study examining program quality and practice in EAE in Georgia. The qualitative component employed a multiple-case design. Participants included six elementary agricultural education teachers from six elementary schools across Georgia, representing diverse geographic regions, school contexts, and program structures. Teachers were purposefully selected from schools actively implementing EAE under Georgia's state-supported initiative. Data collection included in-person classroom observations and semi-structured interviews with each participating teacher. Observations documented instructional strategies, student engagement, use of facilities and materials, and integration of experiential learning within the elementary school day. Interviews explored teachers' professional backgrounds, instructional decision-making, perceptions of program purpose, and experiences with institutional supports and constraints. Data were analyzed using thematic coding and cross-case comparison to identify patterns related to instructional practice, structural conditions, and EAE implementation (Creswell & Plano Clark, 2018).

Results

Analysis of classroom observations and teacher interviews revealed several interrelated themes describing how EAE was enacted across schools. Across cases, experiential, hands-on learning emerged as a central instructional feature. Teachers described agriculture as best taught through active engagement, a perspective reflected in observations of garden-based, project-based, and inquiry-oriented lessons. As one teacher explained, "If they can touch it, plant it, or build it, that's when it clicks." A second theme emphasized teacher adaptation and personal

initiative as key drivers of implementation. Teachers reported modifying instruction based on their backgrounds, available resources, and student needs, often in the absence of formal guidance. One participant noted, “There’s no real roadmap. You figure it out as you go and adjust based on what works with your kids.” Observations reflected substantial variation in instructional approaches across schools. Structural constraints within elementary schools shaped the depth and continuity of EAE instruction. Teachers cited limited instructional time, rigid schedules, and non-specialized facilities as barriers to sustained agricultural learning. As one teacher stated, “I’d love to do more long-term projects, but we’re squeezed between testing, specials, and everything else.” Teachers also described reliance on external partnerships to support programming, frequently referencing Extension personnel and community organizations as sources of materials and expertise. One participant explained, “Without our Extension agent and a few local partners, we wouldn’t have half the materials we use.” Additionally, participants reported limited access to professional development designed specifically for elementary agricultural education, noting that available opportunities were often oriented toward secondary contexts and required adaptation for younger learners.

Conclusions

Findings from classroom observations and teacher interviews indicate that EAE is enacted as a context-dependent instructional practice, consistent with sociocultural theory, in which learning is mediated by classroom interactions, school structures, and available resources (Vygotsky, 1978). Teachers’ emphasis on experiential, hands-on learning reflects the importance of meaningful activity and participation in supporting student understanding, while variation in instructional approaches highlights the influence of local context. The findings also underscore the role of pedagogical content knowledge in EAE implementation. Teachers adapted agricultural concepts, representations, and learning experiences to align with the developmental needs of elementary learners, often in the absence of formal curricular guidance. These adaptations illustrate how agricultural instruction is shaped by teacher expertise and professional judgment rather than standardized program models (Shulman, 1986). Structural features of elementary schools further mediated EAE practice. Rigid schedules, limited instructional time, and non-specialized facilities constrained the depth and continuity of instruction, requiring teachers to negotiate instructional goals within existing elementary routines. Collectively, these findings suggest that quality EAE practice emerges through the interaction of teacher knowledge, social context, and institutional conditions rather than direct transfer of secondary agricultural education frameworks.

Implications/Recommendations

Findings suggest that EAE is best supported through approaches that align with the instructional and structural realities of elementary schools rather than adaptation of secondary agricultural education models. Emphasizing experiential, hands-on learning integrated within existing curricula supports developmentally appropriate instruction, while the reliance on teacher adaptation highlights the importance of professional development tailored to elementary agricultural contexts. By providing empirical insight into how EAE is enacted in practice, this study contributes to the agricultural education literature by informing more contextually grounded frameworks for program quality, professional learning, and future research in elementary agricultural education.

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