Where's the Expert? Understanding the Expertise Gap in Preservice Agricultural Educators

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Introduction

Many preservice agricultural education teachers voice a commitment to experiential learning practices (Baker, Robinson, & Kolb, 2012), but the profession is unsure whether their choice of pedagogical practice supports this stance. It has been asserted agricultural education aligns with experiential learning theory (ELT) (Roberts & Ball, 2009). A previous study by Roberts, Baker, and Goosen (2016) found a lack of continuity between preservice teachers' articulated epistemological views and how those beliefs were operationalized. For this mixed methods study, the Kolb Educator Role Profile (KERP) self-assessment (Kolb, Kolb, Passarelli, & Sharma, 2014) was adapted as an observational instrument within a semi-structured interview to 1) determine the least common educator role preferred by preservice agricultural education teachers in an upper division teaching methods course at Oklahoma State University and 2) investigate preservice agricultural education teachers' lack of preference for the lowest ranked educator role. Addressing the American Association for Agricultural Education's National Research Agenda Priority Five: Efficient and Effective Agricultural Education Programs (Thoron, Myers, & Barrick, 2016), this study seeks to explain why an *expertise gap* exists among preservice teachers, with the subject expert role preferred least among the four educator roles.

Conceptual Framework

The Educator Role Profile (ERP), rooted in ELT, provides understanding for how educators approach the learning process (Kolb, 1984; Kolb et al., 2014) and aids educators in matching learning styles and the concepts of ELT into a model for engaging learners in all modes of the learning cycle (Kolb et al., 2014). The KERP self-assessment identifies the most common educator role teachers adopt, influenced by the educational activities preferred and their relation to the four learning cycle modes of experiential learning (Kolb et al., 2014). The four educator roles adopted are coach, facilitator, standard setter/evaluator, and subject expert (Kolb et al., 2014). Just as ELT posits learners engage in all four modes of the learning cycle (Kolb, 1984), the ERP proposes teachers develop the flexibility to use all educator roles (Kolb et al., 2014). Identifying an educator's most common role with the KERP brings about self-awareness for one's own preferred teaching role and identifies opportunities for additional educator role adoption to improve the learning environment for learners (Kolb et al., 2014).

Methodology

A concurrent triangulation mixed methods approach was utilized for this study (Creswell, 2003), with the structured KERP items comprising the quantitative strand and the non-structured probing interview questions comprising the qualitative strand. Semi-structured interviews facilitated the administration of an observational instrument containing the KERP items, allowing for probing questions to better understand participant responses (Creswell, 2003). The population was a convenience sample (Privitera, 2017) of preservice agricultural educators enrolled in the agricultural education teaching methods course at Oklahoma State University during the fall 2017 term with intentions of completing their program student teaching requirements the following semester. Eleven interviews were recorded, transcribed, and analyzed to determine the preservice agricultural educators' most common educator role and to identify key themes. Credibility, transferability, dependability, and confirmability principles were followed to ensure rigorous and trustworthy results (Lincoln & Guba, 1985). The frequency distribution of preferred educator roles was calculated (Privitera, 2017). Qualitative data were analyzed using In Vivo and pattern coding methods (Saldaña, 2013). Researcher biases were identified and controlled through self-reflexivity, maintaining the integrity of data interpretation (Tracy, 2010).

Findings

The distribution of preservice agricultural educators' most common preferred educator roles were: 72.73% (n = 8) preferred the coach role, 9.09% (n = 1) preferred facilitator, and 18.18% (n = 2) preferred standard setter/evaluator. With zero preservice agricultural educators preferring the expert role (0.00%), it was determined to be the least preferred educator role. This finding supports the conclusion of preservice agricultural educator weakness in the subject expert role (Baker & Twenter, 2016).

After analysis of the interview transcription, the following themes regarding preservice teachers' conceptualization of the subject expert role emerged: *apprehensions, image of an expert, how learning occurs best, most valued knowledge type,* and *expectations of school-based agricultural educators*.

Conclusions/Implications/Recommendations

A goal of agricultural teacher education programs is to prepare students with the knowledge of teaching and learning to be effective teachers in the secondary classroom (Barrick & Garton, 2010; Myers & Dyer, 2004). According to ELT and the ERP, this can be accomplished when educators develop the ability to adopt all four educator roles and engage learners in all modes of the learning process (Kolb, 1984; Kolb et al., 2014). Results imply an expertise gap, indicated by preservice agricultural educators' consistent ranking of subject expert as the least preferred role (Baker & Twenter, 2016).

Highlighted by the *apprehensions* theme, preservice agricultural educators hesitate to adopt the subject expert role because it is believed agricultural educators cannot know everything about their subject content and fear they cannot be expected to know the breadth of agriculture. As made evident by the *image of an expert* theme, preservice agricultural educators believe a right or wrong answer does not exist to everything and find the subject expert role to represent unengaging lecture-based teaching methods unable to apply and put content into practice for learners. The preservice agricultural educators hold a firm belief that *learning occurs best* hands-on, focusing on practice and application rather than the acquisition of key concepts and principles in agriculture. When discussing a preference for types of knowledge, real world and practical skills are emphasized as more *valued knowledge* than content-based knowledge in agriculture. Although four themes representing the data explain why preservice agricultural educators do not prefer the subject expert role, the *expectations of school-based agricultural educators* theme provides insight into why the role is viewed necessary, even when it is not the preference. The preservice agricultural educators believe agricultural teachers should know the content bring taught and must be able to demonstrate knowledge for students to increase interest in learning. However, preservice agricultural educators believe the expectation to be an expert cannot be met and lack confidence in their own agricultural content-knowledge capacity.

Understanding why the expertise gap exists for preservice agricultural educators is paramount to agricultural teacher educator programs. Strategies should be developed and studied to increase preservice agricultural educator efficacy in subject expertise, such as those techniques recommended by Baker and Twenter (2016), to improve flexibility within the subject expert role.

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