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The Coach Phenomena: Examining the Validity of the Kolb Educator Role Profile in Preservice Agricultural Education

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Abstract

Over the last three years, agricultural educators have demonstrated a strong preference for the coaching role, as defined by the Kolb Educator Role Profile (KERP). The purpose of this collective case study was to better understand why this dominant coach preference exists in Oklahoma preservice agricultural educators. Kolb Educator Role Profile (KERP) results, and semi-structured interviews to understand the choice rationale of preservice agricultural educators, were coded to determine the assessment's qualitative validity. Two theoretical themes to address key issues emerged: (a) KERP theoretical perspectives and (b) espoused theories. An adapted KERP framework reflects the case's diverging conceptualizations. Four theoretical categories describe the educator roles in agricultural education: (a) the friend, (b) the know-it-all, (c) the sounding board, and (d) the career development event (CDE) coach. Two theoretical categories capture conceptualization of learning modes: (a) student-first versus book-knowledge focus and (b) dialogue versus hands-on focus. Espoused theories of the preservice agricultural educators reveal KERP item statements were chosen that (a) reflect how I was taught, (b) connect to what I am good at, (c) involve action and real-world, (d) let agricultural education be different, (e) focus on personal growth of students, (f) are what I think students like, and (g) I understand. Recommendations for both improved validity and practice are provided.

***Keywords*:** experiential learning; educator role profile; educator roles; agricultural education; preservice agricultural educators; Kolb Educator Role Profile; KERP

Introduction

Experiential learning, though widely accepted and conceptually sound, is plagued by oversimplification of the theory, ambiguity in praxis, and a lack of effective and consistent measurement (Baker, Robinson, & Kolb, 2012; Kirschner, Sweller, & Clark, 2006; Roberts, 2006; Roberts, 2012). "The result of [experiential learning] is a series of recommendations that most educators find almost impossible to implement" (Kirschner et al., 2006, p. 76). Kolb, Kolb, Passarelli, and Sharma (2014) proposed the Educator Role Profile (ERP) framework to formalize the role of the educator in helping learners progress through the full experiential learning cycle. The framework established four key experiential educator roles and extends those roles to aligned practices and teaching methods. The Kolb Educator Role Profile (KERP) was created in conjunction with the framework as a self-assessment tool for educators to develop an awareness of their preferred role, to make deliberate choices when designing instruction, and to improve training and evaluation of experiential educators (Kolb & Kolb, 2017). This measure meets the psychometric burden of establishing reliability and validity in a number

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of settings, including agricultural education (Kelley, 2017; Kolb et al., 2014), but interpretation and use of the findings are of most concern when establishing validity (Shultz & Whitney, 2005).

Research in agricultural education demonstrated a very strong and consistent preference for the coaching role (Baker & Twenter, 2016; Kelley, 2017). Eighty-eight percent of preservice agricultural educators (N = 124) noted the coaching role as their top preferred role, while only 7% preferred the standard-setter/evaluator role, and less than 2% found subject expert or facilitator to be their largest preference (Kelley, 2017). We as authors have described this finding as the *coaching phenomenon.* How does one interpret the validity of these findings? The crux of this collective case study seeks to conceptualize how preservice agricultural educators interact with the items of the KERP instrument and understand the *coaching phenomena,* with such strong preference for coaching, whilst a noticeable disdain for the subject expert role.

A Search for Understanding

A collective instrumental case study approach (Stake, 1995) was employed in this study. Twelve individuals met the guidelines for inclusion in the study which were: (a) consent to participate, (b) pre-service agricultural educator moving toward teaching licensure, (c) upper division college student, d) enrolled in the teaching methods course where the KERP assessment is administered and discussed. These 12 cases were valuable in understanding how pre-service agricultural educators interpret the 64 question stems that comprise the KERP (Stake, 1995). Procedural, situational, relational, and exiting ethics were infused throughout the research process as more fully outlined in the research process (Tracy, 2010). Preservice agricultural educators in their final year of the teacher education program were asked to participate in this inquiry. An incentive was provided in the form of course credit, and we remained transparent in explaining the aims and objectives of the study and the connection between this study and the course content the students interacted with during the semester. Usually during this instruction students are given the Kolb Educator Role Profile (Kolb et al., 2014) in the standard online delivery format and are asked to interpret their results. As a part of this study, students took the KERP, but did so with the researchers to capture their thoughts and beliefs that guided their decisions. Once preservice agricultural educators reviewed the IRB documents, they were asked to join a researcher for an interview. Participants were asked to choose between two educator role options, identical to the KERP, and to explain the rationale of their choice. These paired choices were pulled directly from the KERP instrument. A semi-structured interview protocol provided freedom to explore emergent ideas and to ask questions (Creswell & Miller, 2000). Figure 1 provides an example of the interview protocol for one of the 32 KERP role preference pairings. The interviews were recorded and transcribed verbatim.

Item Pair #15	
Which of the following educator roles do you prefer?	
I model by demonstrating how an expert thinks about a topic ☐	I show learners that I am a caring person ☐
Why did you select that specific role?	
What does the description of that role mean to you?	
What made you **not** choose the alternative?	

Figure 1. Selected Item Pair Portion of the Interview Protocol

Following data collection, we independently coded each interview utilizing Microsoft Excel®. Preservice agricultural educator voice was of interest in this study, thus we used In Vivo coding as the first-round coding strategy (Saldaña, 2013). In Vivo coding ensured interpretations used terms "that participants use in their everyday lives, rather than in terms derived from the academic disciplines or professional practices" (Stringer, 1999, p. 91). Theoretical coding was chosen as the second cycle coding method in order to bring analysis back to the key issues of the study grounded in the ERP framework (Saldaña, 2013). Though theoretical coding is most often associated with theory development, research focused on pre-existing theories in order to answer the "how" and "why" questions can also be important (Saldaña, 2013). Analytic memos were kept during the coding process to document the coding process and deductive decisions (Saldaña, 2013). Throughout the coding process, reflexivity discussions elucidated researcher biases and supported bracketing in analysis (Creswell & Miller, 2000). Disconfirming evidence was sought following each deductive decision to ensure trustworthiness of the findings (Creswell & Miller, 2000). Final themes and categories were negotiated to further support trustworthiness in the findings.

Theoretical Lenses

The *Educator Role Profile* (ERP) is a framework grounded in the experiential learning theory (Kolb, 1984/2015), focusing on the role of educators in guiding students around the experiential learning cycle (Kolb et al., 2014). Kolb et al. (2014) defined each role:

> **The Facilitator Role.** When facilitating, educators help learners get in touch with their personal experience and reflect on it. They adopt a warm affirming style to draw out learners' interests, intrinsic motivation, and self-knowledge. They often do this by facilitating conversation in small groups. They create personal relationships with learners.
>
> **The Subject Expert Role.** In their role as subject expert, educators help learners organize and connect their reflections to the knowledge base of the subject matter. They adopt an authoritative, reflective style. They often teach by example, modeling and encouraging critical thinking as they systematically organize and analyze the subject matter knowledge. This knowledge is often communicated through lectures and texts.
>
> **The Standard-Setter/Evaluator Role.** As a standard-setter and evaluator, educators help learners master the application of knowledge and skill in order to meet performance

> requirements. They adopt an objective results-oriented style as they set the knowledge requirements needed for quality performance. They create performance activities for learners to evaluate their learning.
>
> **The Coaching Role.** In the coaching role, educators help learners apply knowledge to achieve their goals. They adopt a collaborative, encouraging style, often working one-on-one with individuals to help them learn from experiences in their life context. They assist in the creation of personal development plans and provide ways of getting feedback on performance. (pp. 220-221)

Each of the roles are "bridging strategies" (p. 222) between the four modes of learning – concrete experience (CE), reflective observation (RO), abstract conceptualization (AC), and active experimentation (AE) (Kolb et al., 2014). In the grasping dialect, educators have either a student or subject focus. In the transformation dialect, educators focus on drawing meaning or moving to action. The ERP focuses on the role that educators play in interacting *with,* rather than *on*, students (Kolb et al., 2014), and includes key styles and strategies as noted in the model (see Figure 2).

In addition to the KERP framework, the researchers acknowledged that the cases were all pre-service educators, and as such, their theories of educational practice were espoused rather than theories-in-use (Argyris & Schön, 1974). Kolb (2015) shared that the KERP is a self-report instrument that works under the assumption that the educator role preferences area product of the "beliefs about teaching and learning, goals for the educational process, preferred teaching style, and instructional practices" (p. 302). We were interested, not only in the ultimate choice each participant made in the educator role framework, but also in the espoused theory of action "to which he gives allegiance, and which, upon request, he communicates to others" (p. 7). As explained by Argyris and Schön (1974), it is critical to not only be accurate in identifying the theories of these pre-service educators that govern their teaching decisions, but to also be able to describe them so those involved in their growth and development can provide sound criticism and support. Specific to these cases, the ability to describe the theories that lead to the educational choices embedded in the KERP allow richer understanding of the ultimate results of the measure.

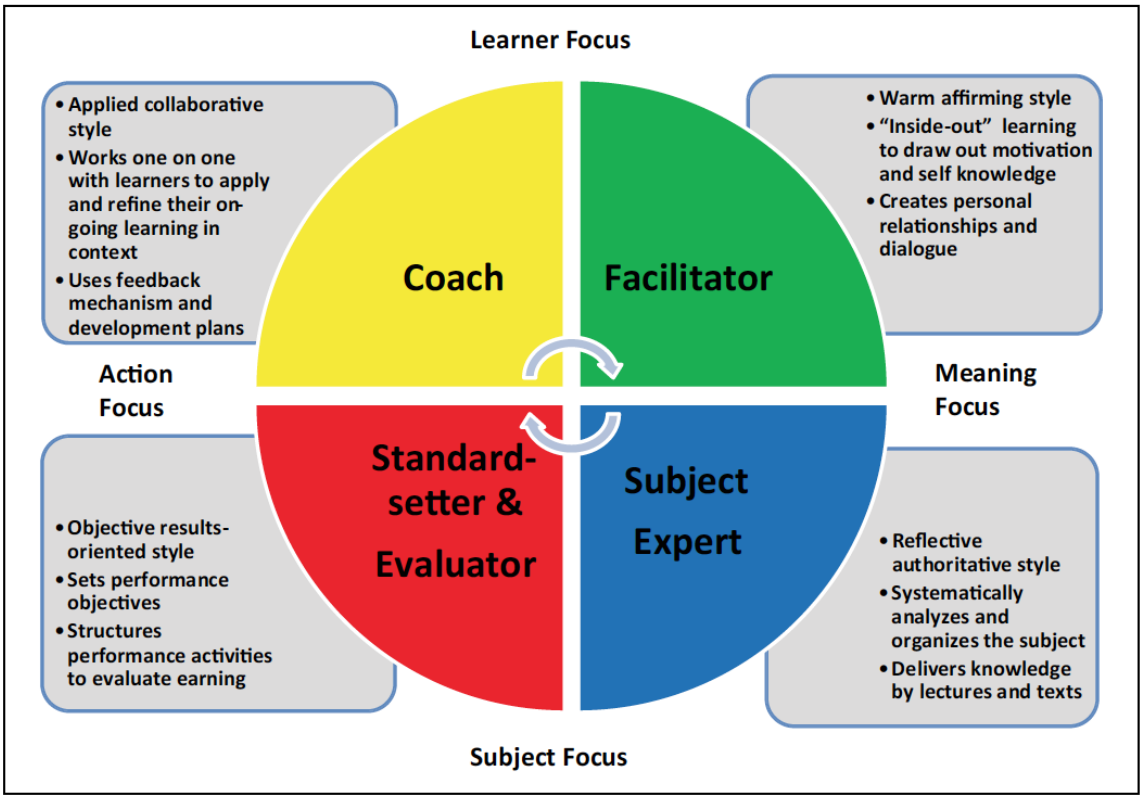

Figure 2. Educator Role Profile. Adapted from "On Becoming an Experiential Educator: The Educator Role Profile" by A. Kolb, D. Kolb, A. Passarelli, and G. Sharma, 2014, *Simulation and Gaming, 45*(2), p. 220. Copyright 2014 by SAGE Publications.

Description of the Case

The collective instrumental case study included 12 undergraduate preservice agricultural educators enrolled in the teaching methods course at Oklahoma State University during the fall 2017 semester. Each of these students came from a traditional midwestern program where the curriculum was grounded in traditional production agriculture, students were heavily involved in competitive events associated with the National FFA Organization, and instruction was more individualized and based on student interest. Science, mathematics, engineering, and technology (STEM) integration was important to these students, but not the primary focus or motivation for entering the agricultural education profession. These pre-service teachers were most excited to grow young people through agricultural education and engage in some of the more traditional elements of the program such as livestock exhibition, public speaking, and traditionally popular career development events. The twelve cases ranged in age from 21 to 31 (M_{age} = 22.25) and were equally representative of the male and female genders. Cases were predominantly in-state students, with only two (17%) considered out-of-state. Each case reported previous enrollment in secondary school-based agricultural education (SBAE) programs.

Did these cases exhibit the *coaching phenomena* mentioned in the literature and of interest to this inquiry? KERP scores indicated coach (n = 8, 73%) as the most common preferred educator role among the cases and subject expert (n = 0, 0%) as the least preferred. The facilitator role was preferred by 9% of the cases (n = 1) and standard-setter/evaluator by 18% (n = 2). These preferences mirror the findings of previous studies in agricultural education (Baker & Twenter, 2016; Kelley, 2017), and as such, seem to match the *coaching phenomena.*

Development of Issues

Stake (1995) recommended the use of issues, represented by the Greek symbol δ, to provide conceptual structure and serve as research questions to bring focus to the problems being addressed and the complexity of the conditions around said problem. The literature used to frame this collective case study outlines key issues associated with the valid interpretation of findings from the KERP in preservice agricultural educators in Oklahoma.

Experiential approaches to learning have gained substantial attention over the last decade, as evidenced by extensive use in more than 30 fields and academic disciplines (Kolb et al., 2014). This learner-centered approach to instruction is often connected to service-based learning (Eyler, 2009), adventure education (Fuller, 2012), problem-solving (Bethell & Morgan, 2011), internships (Lewis & Williams, 1994), career and technical education (Clark, Threeton, & Ewing, 2010), and place-based learning (Smith, 2002) in both formal and informal school settings. In agricultural education, scholars and practitioners have adopted experiential learning as a defining learning theory (Baker et al., 2012; Roberts, 2006) and connected experiential learning to authentic learning (Knobloch, 2003). Baker et al. (2012) aligned the experiential learning theory to the three key components of agricultural education. Though experiential learning continues to gain attention in agricultural education, both critics and supporters have struggled to move the theory to practice (Baker et al., 2012; Roberts, 2006; Roberts, 2012). Experiential learning must be more of a "something than an everything" (Roberts, 2012, p. 3) in order to facilitate meaningful conversations, rather than be hampered by ambiguity (Itin, 1999).

An important part of the conversation, relevant to more formal educational settings, is the role of educators in facilitating experiential learning (Baker et al., 2012; Baker & Twenter, 2016; Kolb et al., 2014). Roberts (2012) distinguished experiential learning from experiential education in noting, experiential learning is not merely an ongoing human process, but a method or technique "that any teacher might employ to meet certain instructional objectives" (p. 4). What exactly are the skills, steps, or strategies associated with experiential learning? Roberts (2012) argued the breadth of application would require each field or discipline to contextualize methods or techniques for their purposes. The challenge is to "hang on to the distinctive ways experiential education frames the educational process while at the same time ensuring that it does not become quaint and overly isolated" (Roberts, 2012, p. 9).

Kolb et al. (2014) responded to the challenge by creating the Kolb Educator Role Profile (KERP) and shared: "we have created an educator-role framework to assist educators in the application of the ELT concepts of the learning cycle and learning style in a dynamic-matching model of teaching around the learning cycle" (Kolb & Kolb, 2017, p. 365). The KERP outlines four key roles that educators play in supporting experiential learning: (a) facilitator, (b) subject expert, (c) standard setter/evaluator, and (d) coach (Kolb et al., 2014). Each of the roles are accompanied by practical descriptions of methods and approaches indicative of each role. The KERP was designed as a self-assessment instrument to "help educators sharpen their awareness of their educator-role preferences and to make deliberate choices about what works best in a specific situation" (Kolb & Kolb, 2017, p. 367).

As explained by Shultz and Whitney (2005), the development of a metric that accompanies the KERP framework provides valuable information to practitioners as they make decisions, research the effectiveness of strategies, and further improve the KERP framework – so long as the metric is "well-developed and used in combination with other relevant information" (p. 3). Literature established that the KERP meets the psychometric standards for both reliability and validity (Kolb et al., 2014). Though this quantitative, confirmatory, process is one valuable piece of determining validity, Furr and

Bacharach (2008) reminded researchers, "a measure itself is neither valid nor invalid; rather, the issue of validity concerns the interpretations and uses of a measure's scores" (p. 168). Furr and Bacharach (2008), referring to a 48-question conscientiousness scale as an example, shared:

> In terms of validity, the set of items themselves is neither valid nor invalid. Similarly, the scores derived from the 48 items are neither valid nor invalid. However, the authors' interpretations of the scores might be valid or invalid. Are the authors correct in interpreting scores on the set of 48 items in terms of planfulness, organization, and determination. (p. 168)

Though the KERP is a valuable tool for experiential educators, the interpretation of KERP scores within various contexts warrants attention.

Should we modify practice, assess instructional strategies, or monitor effectiveness using the KERP? The answer rests on the validity of the measure, which is defined as, "the degree to which evidence and theory support the *interpretations* [emphasis added] of test scores entailed by the proposed uses" (AERA, APA, & NCME, 1999, p. 9). Are we, the authors, correct in interpreting the KERP results of preservice agricultural educators? Is there a valid explanation for the coaching phenomena? To answer these important questions, five key issues have been identified to better understand how students interact with the KERP instrument to achieve their ultimate score.

Focus of the Case through Issues Identification

The literature framed this collective case study by highlighting six specific issues that guided data collection and analysis:

δ_1: How are preservice agricultural educators interpreting the KERP key concepts?
δ_2: What espoused theories (Argyris & Schön, 1974) guide preservice agricultural educators' choice between the KERP's dichotomous role options?
δ_3: Are concepts embedded within the KERP that preservice agricultural educators operationalize differently than the KERP framework?
δ_4: Why are preservice agricultural educators finding coach as their preferred role?
δ_5: Why are less than two percent of preservice agricultural educators finding subject expert or facilitator as their most preferred role?

Assertions and Conclusions

Assertions are claims to knowledge made by researchers as a result of data analysis in a qualitative case study (Stake, 1995). They highlight salient findings and are followed by conclusions or inferences regarding the nature of the case. Initial analysis of 206 pages of transcriptions revealed 724 In Vivo codes. Secondary, theoretical coding (Stake, 1995) allowed us to identify emerging themes and categories related to concepts within Kolb et al.'s (2014) educator roles and associated beliefs, attitudes, or practices. Theoretical coding produced six themes aligned with the four educator roles and two learning foci of the original KERP framework. Seven sub-themes of espoused theories were also identified to make explicit what drove participants KERP decisions. Generalization to other populations was not the goal of this study. Rather, transferability of these findings is the burden of the reader in assessing similarity of cases (Stake 1995).

KERP Theoretical Perspectives

The study uncovered preservice agricultural educators' rationale behind preferences for each KERP option. Although Kolb et al. (2014) developed the KERP framework to help educators "teach around the learning cycle" (p. 220) and utilize within various contexts, the cases viewed completion of the

KERP pragmatically and contextually-bound in SBAE. To reflect the divergence of the cases' conceptualization from the framework, the KERP was reframed into six theoretical categories and fourteen theoretical sub-categories. Figure 3 summarizes the findings in a way that allows a direct comparison between the intended educator role framework (see Figure 2) and how it was viewed by the cases in this study. This supports the goal of understanding how students are viewing the four roles for more valid interpretation of pre-service teacher reports. Four theoretical categories described the cases' conceptualization of the four educator roles as (a) the friend, (b) the know-it-all, (c) the sounding board, and (d) the career development event (CDE) coach. Fourteen theoretical sub-categories were asserted to describe the conceptualized key methods and approaches associated with the theoretically-categorized educator roles and are discussed within the narrative of each role. The remaining two theoretical categories captured the cases' conceptualization of the dialectic grasping and transforming learning dimensions as (a) student-first versus book-knowledge focus, and (b) dialogue versus hands-on focus.

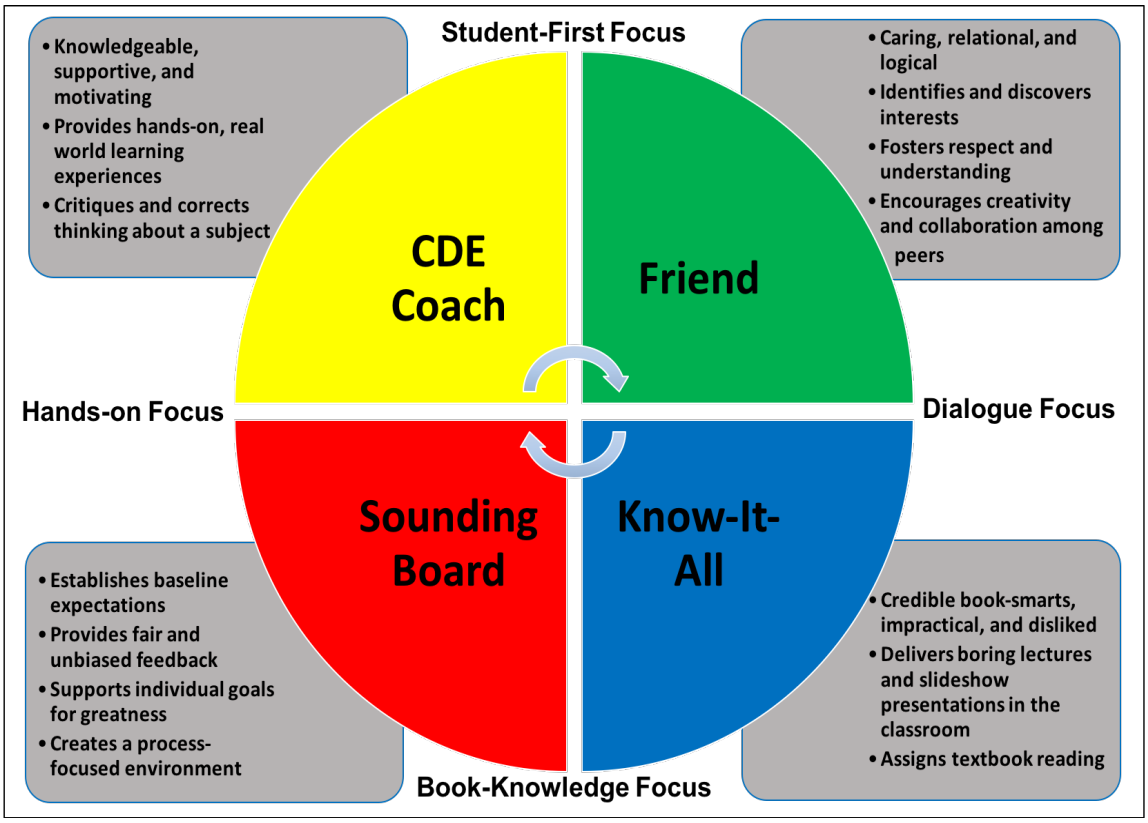

Figure 3. Adapted Educator Role Profile. Reframing of the educator roles and learning modes to reflect preservice agricultural educators' theoretically-coded understandings of the KERP based on assessment conceptualizations.

The friend in contrast to the facilitator. The collective case's strong emphasis on caring and collaborating with students indicated a conceptualization of the facilitator role as an attentive buddy rather than a helper in the learning process. A caring, relational, and logical demeanor was valued by all cases. The concern that students realize "I care more about them then if I know everything in the world" was expressed by Case 4, with similar sentiments mentioned by multiple cases. Relationships and inside out learning were extended beyond the student-teacher interaction to peers. "If students can learn from kids or their peers that's better than just listening to the old guy from the college who came there to teach us," said Case 3. "We do the best learning from each other," remarked Case 4. The friend

role also believed in the importance of fostering respect and understanding among students. Case 8 felt it was "really important to respect the people that you're around," while Case 4 believed students needed to "learn about ourselves and learn about the world we live in." Case 6 stated educators needed to be logical to provide "a good contrast to the students that are a little more creative." Creativity was believed to help students learn to "think outside of the box" (Cases 1, 5, 7, 8, and 10). Ultimately, the friend role maintained a focus on the discovery of learner's interests. When describing why they preferred learners to pursue the development of their interests, Case 6 said, "I feel like it's the first step…you develop this interest and then later on down the road they can move to preparing for that career."

The know-it-all in contrast to the expert. The collective case reframed the subject expert role as the know-it-all, conceptualized as someone with credible book-smarts but no practical skills. Case 6 described the know-it-all role as "a person that know[s] all this information but they're not very good at it." Likewise, Case 10 said the role "comes from a book" and that their mind "immediately goes to PowerPoint lecture." A recurring reaction throughout the cases was disdain for teaching methods associated with the know-it-all role. "I hate lectures," stated Cases 1, 4, and 10 bluntly. "I don't think I'll ever require a student to read information critically," indicated Case 1. Though content knowledge was valued as the "keystone in teaching" (Case 3) in order to establish credibility, the know-it-all was targeted as the boring educator role. "It's like a classroom, a board; it's super boring, no one really likes that, and students don't pay attention" said Case 8. "If you're just [teaching] basic knowledge they're going to be bored," noted Case 2. Case 12 believed students "didn't care that much what an expert thinks." A focus on analyzing, organizing, and finding meaning in subject content was lacking. Underlying the strong dislike, the know-it-all role was perceived as impossible to adopt. "As ag teachers, if we think we are going to know everything about every little subject that we teach in ag, it is foolish because we are not," Case 3 firmly expressed. The belief that agricultural educators could not "be an expert in everything" was undisputed.

The sounding board in contrast to the standard setter/evaluator. Deviating significantly from the theoretical framework of standard-setter/evaluator, the collective case conceptualized the role as the sounding board. Rather than being results and performance driven, the sounding board's purpose was to establish baseline expectations in the classroom with unlimited freedom for student goals and self-defined outcomes. "They need to know what is expected of them," said Case 12. But, these expectations and standards were only deemed necessary to help students "have a goal in mind" (Case 4), not measure learning. In the sounding board role, the cases believed focusing on performance outcomes did not account for "kids performing differently" (Case 11). "Being a teacher, you have to be able to take into account that everybody doesn't learn at the same level," expressed Case 9. Emphasis on the learning process over outcomes was indicated:

> As long as they're learning something, however they get there is good… It should be them growing from where they started out in class to becoming more knowledgeable about something or doing better at something than what they did before; the best version of themselves rather than the outcome. (Case 7)

The sounding board's process-focused environment was juxtaposed by a desire for objectivity, operationalized as fair and unbiased feedback. Case 1 felt teachers needed to be "fair and without bias to give [students] the best opportunities to succeed." Being fair and unbiased meant the sounding board role "shouldn't punish students that didn't meet the standard if they tried" (Case 10).

The Career Development Event (CDE) coach in contrast to the coach. The coaching role was conceptualized as the CDE coach, influenced by value-laden language in the agricultural education context and its frequent association with training CDE/LDE teams. The word coach was interpreted more literally as a coach of a team rather than an educator establishing and monitoring goals. Aligning somewhat with its theoretical underpinnings to support individual learners, the CDE coach assumed

more of the evaluative and expertise behaviors found in the KERP subject expert and standard-setter/evaluator roles. Case 1 viewed their responsibility as CDE coach to "teach [students] everything I know to get [them] where [they] want to be" and "ask questions to see what they're thinking and lead into where maybe the thought process should be." Similarly, Case 5 said they helped students learn by "see[ing] what you did wrong, hear[ing] how you did it wrong or right, and [telling] how to make it better." Case 8 clearly saw the role of CDE coach to "tell them…how you can get better at this." Case 11 believed "the basic concepts [were] going to come with coaching." When asked to expand on that belief, Case 11 said:

> For example [with] livestock judging and what I've experienced, I'll go through and have a class of four animals. I'll explain my personal views on why each one is a certain way…then try to see if they see that the same way. If not, then [I will] tell them why or [explain] what I am seeing.

It was emphasized that relationships were developed and strengthened through the CDE coach role, as Case 12 "enjoyed making relationships with my students." The CDE coach operationalized applied learning contexts as hands-on and real world. "If we can learn in a real-life context, that's best," said Case 3. The application of learning in the real world was heavily preferred by the collective case because, as Case 4 stated, "it's more practical" and "goes back to using hands-on."

Student-first versus book-knowledge focus in contrast to learner versus subject focus. In the grasping dialect, the cases viewed subject focus with negative valence, preferring learner focus. Doing what was always considered ideal for students allowed the cases to evade subject content almost completely; preference was for anything *but* subject content. Case 7 believed that "students don't pay as much attention to the concepts as they do when they get to actually put their hands on something." The cases did not see much utility in subject content. "You can learn all this book knowledge as much as you want, but if you don't know how to apply it out in the real world it's not going to get you anywhere," affirmed Case 9.

Dialogue versus hands-on focus in contrast to meaning versus action focus. Preferences in the transforming dialect were positively weighted toward action and inundated with language commonly amplified in agricultural education settings. The acting mode of learning was consistently described as *hands-on* or *doing*. Case 11 said hands-on learning was preferred because "…you experience it, you do it, you just know it. When you do something you usually hold on to it." The cases appeared to unanimously agree with Case 2 that with hands-on learning students would "…learn more [and] they'll be more interested… [I]t's overall better, period, for the kids." Discussion and reflection held some value in the learning process with the case, but lacked desire to create meaning and integrate critical thinking. Said best by Case 11, "It can be effective to discuss it…but I don't think it's as effective as actually doing it."

Espoused Theories

Though the educator role preferences were interesting, how students came to each KERP paired choice brought depth and understanding to how students espoused they would behave as an educator. Seven espoused theories (Argyris & Schön, 1974) appeared to lead the cases to choose options that (a) reflect how I was taught, (b) connect to what I am good at, (c) involve action and real-world, (d) let agricultural education be different, (e) focus on personal growth of students, (f) are what I think students like, and (g) I understand.

Reflect how I was taught. The cases repeatedly used their personal experience as students to rationalize option choices. "How I view an ag teacher is from my experience," admitted Case 6. Likewise, Case 10 described their agricultural teacher as "an excellent example of a coach…and that's kind of how I base my teaching off of."

Connect to what I am good at. Fixed beliefs about ability, performance, and knowledge guided the cases to select options reflective of their self-determined proficient areas. Case 8 chose to "focus more on what [they] really like and know" while Case 12's decision was based on the fact that the alternative was "not [their] forte or something [they] enjoy." Making option choices based on what they were good at was driven by the fear of being wrong. Case 8 stated honestly, "I'm afraid I would tell a student something wrong and make myself uncredible [*sic*]." This espoused theory supports the belief that educators are apt to teach how they learn (Davidson, 1990; Hartel, 1995).

Involve action and real-world. Strong preference existed for KERP items focused on the action mode of learning and real-world application. Case 9's view that "real-world experiences are more important than any type of knowledge" is indicative of the cases' pro-bias for real-world and action. The need to equip students with "life skills" was communicated by Cases 4, 5, and 8. "[A]g as a whole is just really hands-on," said Case 6.

Let agricultural education be different. KERP option choices were not chosen if they were not conducive with the complexities of agricultural education. "There's so many diverse areas [in agriculture], you can't be an expert in it all," claimed Case 2. Teaching agriculture was considered unique from other disciplines because of the expectation "to teach the agriculture broad but then teach to your area, too" (Case 3). When subject matter options were chosen, it was because the discipline of agriculture held societal relevance. "Without food [we] wouldn't live, so agriculture takes precedence," purported Case 7.

Focus on personal growth of students. A commitment to the personal growth of students outweighed the importance of teaching agricultural content. For Case 3, certain options were chosen because "it goes further than ag." Case 2 desired to "ultimately make good people of the world." Being an agricultural teacher was seen as "part of a bigger picture…to grow them [students] as people" (Case 4).

What I think students like. The cases preferred options perceived as fun or well-liked by students. At the heart of the preference appeared to be a concern for student's motivation and enrollment in agricultural education courses. "You're going to hit more kids with hands-on experience," said Case 6. Similarly, Case 2 trusted "hands-on learning will make yours [*sic*] a class they look forward to coming to." Students were believed to find creativity more fun (Case 12) and learning from peers more enjoyable (Case 8). Positive social value was collectively attached to the term *coach* as well.

I do not understand. At times, KERP options were not chosen because the meaning was operationalized incorrectly or unknown by the cases. When discussing the meaning of *objective evaluator*, Case 9 defined the concept as, "to evaluate the objectives…because it's a way of assessing what you've learned." Case 10 admitted, "I guess I really don't even know the correct definition for intellectual." Concepts such as *application, field project, critical reading*, and *scholarship* were consistently operationalized incorrectly throughout the cases.

Issue Resolution

The adapted ERP framework provides significant insight to address the study's key issues. Table 1 summarizes the issues and how they were resolved. For preservice agricultural educators, KERP option choice was contextually and culturally laden, indicated by their conceptualizations of the ERP framework and prevalent espoused theories.

Table 1

Key Issues and Resolution

Key issue	Resolution
Issue 1: How are preservice agricultural educators interpreting the KERP key concepts?	The KERP framework is bound contextually within the agricultural education classroom. Action, learner, and meaning focused modes are conceptualized positively and preferred, while the subject focused mode is conceptualized negatively and often evaded.
Issue 2: What espoused theories (Argyris & Schön, 1974) guide preservice agricultural educators' choice between the KERP's dichotomous role options?	Preservice agricultural educators choose items that reflect how they were taught, connect to what they are good at, involve action and "real world," let agricultural education be different, focus on personal growth of students, are what they think students like, and they understand.
Issue 3: Are concepts embedded within the KERP that preservice agricultural educators operationalize differently than the ERP framework?	Objective evaluator, intellectual level, critical reading, scholarship, application, and field projects were not operationalized consistent with literature. These concepts were often assigned a positive or negative valence based on past experience.
Issue 4: Why are preservice agricultural educators finding coach as their preferred role?	Preservice agricultural educators consistently prefer action and learner focused items, indicative of the coaching role, and hold a positive social value attached to the word *coach*.
Issue 5: Why are less than two percent of preservice agricultural educators finding subject expert or facilitator as their most preferred role?	Preservice agricultural educators' strong preference for action focused items caused meaning focused items to be selected minimally. Those in this study had a strong preference for hands-on learning. Subject focused items are rarely chosen. Items associated with these roles contain words that hold negative social values such as lectures, textbooks, and extensive research.

Discussion and Recommendations for Praxis

Pragmatically the KERP provided the opportunity to guide preservice agricultural educators toward a more balanced and systematic approach of teaching around the learner's experiential learning cycle (Kolb et al., 2014). While deemed a reliable instrument quantitatively, based on the qualitative findings of this study, if the intended use of the KERP is to train preservice agricultural educators, one must consider the context and use of the metric (Shultz & Whitney, 2005) before interpreting findings. The KERP quantifies educator roles, but may not explain the culturally and contextually laden factors impacting the educator's preferences. Reliance on the reported numbers from the KERP alone could provide an inaccurate picture of preservice agricultural educators' conceptualizations of teaching agriculture. Recommendations and discussion will focus on improving validity of assertions made from the KERP and recommendations for those using KERP with pre-service agricultural educators.

Praxis Targeting Improved KERP Validity

In this collective case study, it became clear that prior to the KERP administration, substantial time should be devoted to understanding the KERP framework, terminology, and operationalized definitions of the four roles. It would also be helpful for students to have a foundational understanding of the experiential learning cycle (Kolb, 2015). Simply administering the KERP and determining preferred roles could lead to invalid conclusions based on culturally laden definitions of terms like coach, intellectual, authoritative, and lectures (Furr & Bacharach, 2008). Those administering the KERP should engage in discussions with learners to better understand the contextual and cultural factors influencing their preference before interpreting scores. Based on the cases of this study, we recommend that researchers devote specific time to clarifying those KERP statements most often misunderstood listed in Table 2.

Table 2

Common Misunderstood KERP Paired Statements

KERP Role	KERP Statement
Standard Setter/Evaluator	I use *objective tests** to evaluate learners' understanding of a subject. I provide a focused structure for *disciplined problem solving.* It is important to be an *objective* evaluator.
Expert	I require learners to read the literature about a subject *critically*. It is important to be *logical*. I relate to learners on an *intellectual* level.
Coach	I use *field projects* for learners to apply knowledge in real life situations. I take a *coaching* role with learners.

* Italic emphasis indicates words/concepts of most concern

There were a number of contextual misunderstandings that we attributed to the culture surrounding SBAE educational models. For example, *field projects* were often confused with Supervised Agricultural Experience projects and *coaching* was often connected to National FFA Career and Leadership Development Events. Again, having meaningful conversations around the concepts of the KERP, connecting those concepts to SBAE and National FFA program components, and making clear how the KERP is broadly applied to all education could be beneficial in both students making better choices within the instrument and in the researcher interpreting the results of the administration.

To minimize the invalid assertions made because of cultural or contextual misunderstandings, we recommend that anyone consistently using the KERP to train or support educators should begin with an annotated delivery of the instrument to better understand how participants are interpreting the various words and concepts within the KERP pairings. Hearing participants discuss their rationale and understanding of the concepts provided valuable insight into participant voice and rationale that improved our ability to validly interpret the conclusions made in the final KERP report. Employing a case study approach while administering the KERP allows teacher educator programs to combine scores "with other relevant information" (Shultz &Whitney, 2005, p. 3), and may assist in the development of more robust growth and development plans for aspiring experiential educators in agricultural education. For example, prior to this study we concluded that pre-service agricultural educators in our population did not value the practices inherent to the expert role. However, this study helped elucidate a more valid conclusion that students do not feel comfortable as an expert in their field

and have been taught that lectures are poor instructional strategies. More valid conclusions lead to more meaningful and effective strategies, discussions, and recommendations. We also assume that more valid understandings of the pairings will lead to a more reliable measurement of the four constructs of the KERP.

Perhaps a revision of the KERP that directly targets the programmatic and contextual language of SBAE could yield more valid and reliable conclusions, but it is our opinion that connecting the SBAE model, language, and program elements to the KERP framework is a rich process that can yield deeper understandings and growth – so long as time is devoted to understanding the specific connections of the KERP and SBAE. Further replication of this study with other collective cases would identify if the findings of this inquiry can be transferred to other similar contexts or if pre-service interpretation is truly bound within each unique case.

Praxis Targeting SBAE Pre-Service Teacher Training

Kolb et al. (2014) made clear that in most cases people tend to teach, or hold preferences about teaching, based on their own personal learning style. We often teach the way we learn or how we were taught. This idea was examined in these cases through the lens of espoused theory (Argyris & Schön, 1974) where students described why they were making certain KERP choices. One key reason one might utilize the KERP in developing pre-service agricultural educators is to develop a more holistic and well-rounded approach as an experiential educator. "With practice, both learners and educators can develop the flexibility to use all roles and styles to create a more powerful and effective process of teaching and learning" (Kolb, 2015, p. 306). With this goal in mind, a number of recommendations are made based on how we would hope to move forward with this population, understanding it is the task of you, the reader, to critique how the recommendations transfer to your pre-service teachers. First, as shared earlier, we recommend that the KERP be administered in this narrative format by practitioners to understand how educators are viewing the statements and KERP concepts. This process has value in improving the validity of one's conclusions, but it also holds value in understanding and growing experiential educators where they are.

Second, in these cases we noted a *heroes* and *villains* narrative that was woven throughout students discussions of their beliefs, espoused theories, and KERP choices. In almost all of the cases, students assigned a positive valence to practices that align with action and learner focused modes of teaching and learning. In contrast, many of the practices that are aligned to subject and meaning focus held a negative valence. As expressed in the data, students found great value in engaging with students, being hands-on in their approach, coaching students individually, creating safe learning spaces, being flexible and fair, and using real-world examples. However, they consistently connected lectures, assessment, exams, standards, critical analysis, subject-expertise, and authoritative practices to the educator they hoped to never become. They consistently contextualized these concepts within public education and assigned a negative valence to those experiential educator roles. We contend this is one of the reasons the *coaching phenomena* exists. Our concern is that meaning and subject focused educator strategies are essential to any holistic learning experience. How can we strip these concepts of the negative connection to bad public instruction and help students find the value in each of these roles? We recommend using the KERP framework to ensure educators understand that if one avoids the expert and evaluator roles, then only half of the experiential learning cycle is being supported. Work must be done to help students understand that a *good* lecture has a valuable place in education and without objective feedback students struggle to know where and how to improve. Furthermore, serving in the expert role does not mean you must *be* an expert – you simply must support students in connecting with the knowledge base in a subject.

Third, students not only villainized the expert and evaluator roles, but they struggled to understand how those roles could be played well. There is a need for more instruction, strategies, and models of experiential educators that play the expert and evaluator roles well. The pre-service teachers in this case had a myriad of examples where teachers served the facilitation and coaching roles well, but most often only provided negative examples of educators in the evaluator or expert role. Perhaps in teacher education, especially in SBAE, we overly emphasize relationships and fail to properly support the role of rigor. It is recommended that teacher educators focus on explicitly provided opportunities for modeling, practice, and feedback around serving in the expert and evaluator roles. Research has identified a strong action and learner focused preference for educators in SBAE (Baker & Twenter, 2016). There is a risk that this homogeneity in style could contribute to the hero and villain mentality discussed earlier. It would be interesting to explore if this strong preference for action and learner focus is specific to SBAE, or perhaps to educators in general. Further research exploring trends in the preferred roles of science educators, professors, scientists, and others would begin to identify preferences in educator roles and the impact that has on the educators they train.

Fourth, we found students to hold entity, rather than incremental, beliefs about their experiential educator role preferences and the ability to grow in their flexibility. Kolb et al. (2014) makes it clear that our preferences for learning and/or educating can be unconscious and automatic, but they can also be consciously modified and changed. One can grow in their ability to serve all four educator roles, but that change process is more about one's willingness to learn rather than innate ability (Kolb, 2015). Many of the cases would explain that they will never be an expert in the field of agriculture or that they are simply not an authoritative person. This perceived lack of control to grow and develop could be a real barrier to students finding value in the expert and evaluator roles and demonstrating a willingness to grow in those areas. We recommend providing the KERP early in the teacher education process and then re-assessing throughout the course of educator training. This could begin to allow students to see their flexibility grow and change as they gain experience, thus, leading to a more incremental belief in their ability to learn and grow. It would be valuable to document this growth and development of educators in SBAE teacher training programs nationally to better understand how their flexibility changes throughout the training process.

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