Here Are the Keys, Go Teach: How Alternatively Certified Agriculture Teachers Learn to Be Agriculture Teachers

Abstract

Teacher shortages in agricultural education are one reason for an increase in alternatively certified teachers, with 22.8% of new hires in school-based agricultural education (SBAE) being alternative licensure route completers in 2018. While prior research in SBAE has provided insight into the needs of alternatively certified teachers, we do not know how alternatively certified agriculture teachers are acquiring the practices of the profession. The purpose of this study was to explore how alternatively certified agriculture teachers acquire the practices of agriculture teachers using Wenger's social learning theory, Communities of Practice. Data analysis resulted in four themes regarding how the participants acquired practices and the context of acquisition: (1) here are the keys, go teach; (2) connectors to the community, (3) in it for the kids, and (4) agricultural education is different from anything else. These findings highlight the social aspects of acquiring the unique practices of agriculture teachers through experience and mentors, as well as the dedication of participants to supporting students. Consequently, we recommend state leaders in SBAE acknowledge the importance of social learning as they develop programming and supports for alternatively certified agriculture teachers.

Keywords: alternative certification; teacher certification; routes to certification; communities of practice; school-based agricultural education; social learning

Introduction

A need for qualified teachers has existed in education for decades, with teacher shortages among a myriad of problems, including insufficient teacher preparation programs and a tarnished perception of teachers (Gardner, 1983). In a report on the teacher labor market, the Economic Policy Institute (Garcia & Weiss, 2019) illustrated the challenges of the teacher shortage by highlighting the number of schools that could not fill a vacancy tripled from 2012 to 2016 and the percentage of individuals who completed a teacher preparation program decreased by 27.4 percent during the same time. School-based agricultural education (SBAE) has also been affected by the scarcity of teachers to fill positions. Difficulties in filling agriculture teaching positions can be traced to the beginning of the 20th century (Camp et al., 2002). The 2018 National Agricultural Education Supply and Demand Study (Smith et al., 2019) highlighted 71 full- and part-time positions went unfilled at the start of the 2018-2019 school year.

One response to the ongoing teacher shortage is providing additional routes for individuals to enter the profession through alternative certification. Generally, alternative certification is characterized as a path to certify individuals who hold a bachelor's degree in a field outside of education, compared to traditional certification through a teacher preparation program at a university (Brown, 2009; Consuegra et al., 2014; Ruhland & Bremer, 2003). Alternative certification exists in multiple forms to ensure a supply of teachers during teacher shortages (Feistritzer & Haar, 2008). The different types include alternate routes (i.e., programs which mirror traditional teacher preparation), alternative certification (i.e., policies that lower requirements to enter the classroom; Darling-Hammond et al.,

1999), as well as a variety of other terms including lateral entry teachers, industry-prepared teachers, and provisional certification (Feistritzer & Haar, 2008; Moore, 1976; Rayfield et al., 2011). For this study, we defined alternatively certified agriculture teachers as individuals who did not become licensed to teach through a teacher preparation program in agricultural education and/or hold an alternative or provisional teaching license in agricultural education.

In SBAE, alternative certification has existed as a documented route for licensure since the 1970s (Bowling & Ball, 2018; Flowers & Martin, 2010) and continues to the present day, with 16.5% of first-year agriculture teachers classified as holding an alternative certification in 2019 (Foster et al., 2020). Agriculture teachers who enter the profession through an alternative route are often older with more occupational experience than their traditionally certified peers (Rocca & Washburn, 2006) and decide to become an agriculture teacher after other experiences (Barry et al., 2022; Claflin et al., 2020). Like the different types of alternative certification, alternatively certified agriculture teachers' backgrounds vary. Claflin et al. (2020, 2022) found the alternatively certified agriculture teachers either changed careers to become agriculture teachers or they were previously certified to teach in another content area and added an agriculture license. According to three recent studies, as alternatively certified agriculture teachers begin their careers, they indicate unclear expectations for being an agriculture teacher (Barry et al., 2022; Roberts et al., 2020), including implied expectations that were unspoken or assumed (Claflin et al., 2022). The lack of clear expectations for early-career alternatively certified agriculture teachers has led to recommendations for professional development and support (Barry et al., 2022; Claflin et al., 2022; Roberts et al., 2020), although with limited evidence on the implementation of professional development for that population of teachers.

Literature Review

A relevant thread throughout the research on alternatively certified teachers in SBAE is the idea of achieving the expectations of an agriculture teacher. While there are no definitive studies linking the qualities of effective agriculture teachers with alternatively certified agriculture teachers, scholars in SBAE have cultivated lists of competencies and roles all agriculture teachers are expected to fulfill. Talbert et al. (2014) cataloged ten roles focused on (a) the school district, (b) the SBAE program, (c) instruction, (d) assessment, (e) advising student organizations, (f) providing oversight to supervised agricultural education (SAE) programs, and (g) maintaining a professional lifestyle. To better understand the characteristics of effective agriculture teachers, researchers have engaged with stakeholders to develop lists ranging from 40 to 58 different characteristics falling into categories such as professionalism, program planning, and personal dispositions (Eck et al., 2019; Roberts et al., 2006; Roberts & Dyer, 2004).

These roles and competencies are echoed in the professional development need assessments and self-efficacy research focused on alternatively certified agriculture teachers in the areas of instruction, program management, advising FFA, and overseeing SAE programs (Duncan & Ricketts, 2008; Roberts & Dyer, 2004; Robinson & Edwards, 2012; Rocca & Washburn, 2006; Stair et al., 2019). Research in SBAE has provided insight into alternatively certified teachers' self-efficacy and professional development needs through comparisons between traditionally and alternatively certified teachers. These comparisons indicate differences between alternatively and traditionally certified agriculture teachers, but without consistent findings between studies (Duncan & Ricketts, 2008; Roberts & Dyer, 2004; Robinson & Edwards, 2012; Rocca & Washburn, 2006; Stair et al., 2019). Related to agriculture program management, alternatively certified agriculture teachers feel confident in leading the local FFA program (Kinney, 2011), and understand how to manage supervised agricultural experience programs (Robinson & Haynes, 2011). These findings prompted researchers to

offer an array of recommendations for future studies, calling for examinations of the experience of alternatively certified agriculture teachers, alternative certification programs, professional knowledge, and teaching ability (Bowling & Ball, 2018; Claflin et al., 2020; Duncan & Ricketts, 2008; Kinney, 2011; Roberts & Dyer, 2004; Robinson, 2010; Rocca & Washburn, 2006).

With calls for research to move beyond comparisons of certification types and understand the alternative certification in SBAE from a different perspective, we still do not have any practical recommendations for supporting alternatively certified teachers to meet the above competencies beyond providing professional development. Limited research exists outlining successful models of professional development specifically for alternatively certified agriculture teachers. However, Bowling and Ball (2018) recommended the use of communities of practice to support alternatively certified agriculture teachers with the goal of "connect[ing] them to the larger teaching community and professional culture within agricultural education, that is unique to the practice of teaching school-based agriculture," (p. 118). While alternatively certified agriculture teachers undoubtedly benefit from professional development, we argue that we cannot rely only on professional development alone to best support alternatively certified teachers. Limited research has examined how these alternatively certified teachers are learning the practices of agriculture teachers; instead, in the research, there is simply a call for them to learn (Roberts & Dyer, 2004; Rocca & Washburn, 2006). It is critical until we understand how they are currently learning within the context of their teaching experience to align support for this population of teachers. Therefore, this research, grounded in Wenger's (1998) concept of Communities of Practice, sought to explore through a social learning perspective how alternatively certified agriculture teachers acquire the practices of agriculture teachers.

Theoretical Framework

According to Lave (1988), learning is a social endeavor that occurs in the practice of an act within a community and is a strongly integrated part of social practice (Lave, 1988; Lave & Wenger, 1991). This view of learning as participation is in contrast to the traditional view of learning as acquisition (Sfard, 1998). In the acquisition metaphor, learning occurs due to knowledge sharing via a teacher or facilitator. When we view learning through the lens of participation, we acknowledge belonging, participation, and social influence are key factors in the knowledge creation process (Sfard, 1998). Additionally, within the participation metaphor, knowledge is not an individual object but instead consists of practices grounded within the social and cultural norms of a group (Wegner & Nückles, 2015; Wenger et al., 2002). As we discuss how participants *acquire the practices* in this paper, we are referring to how they gain the knowledge from the collective group through participation.

Wenger (1998) introduced Communities of Practice as a social learning theory where participation is a process of learning and knowing. It is through communities of practice that we make sense of the world and forge our identities (Wenger, 1988). Within communities of practice, knowledge is a result of active engagement and participation, which can lead to competence, and meaning is the product of learning (Wenger 1998). Communities of practice are essential as Wenger shared, "we all have our own theories and ways of understanding the world, and our communities of practice are places where we develop, negotiate, and share them," (Wenger, 1998, p. 48).
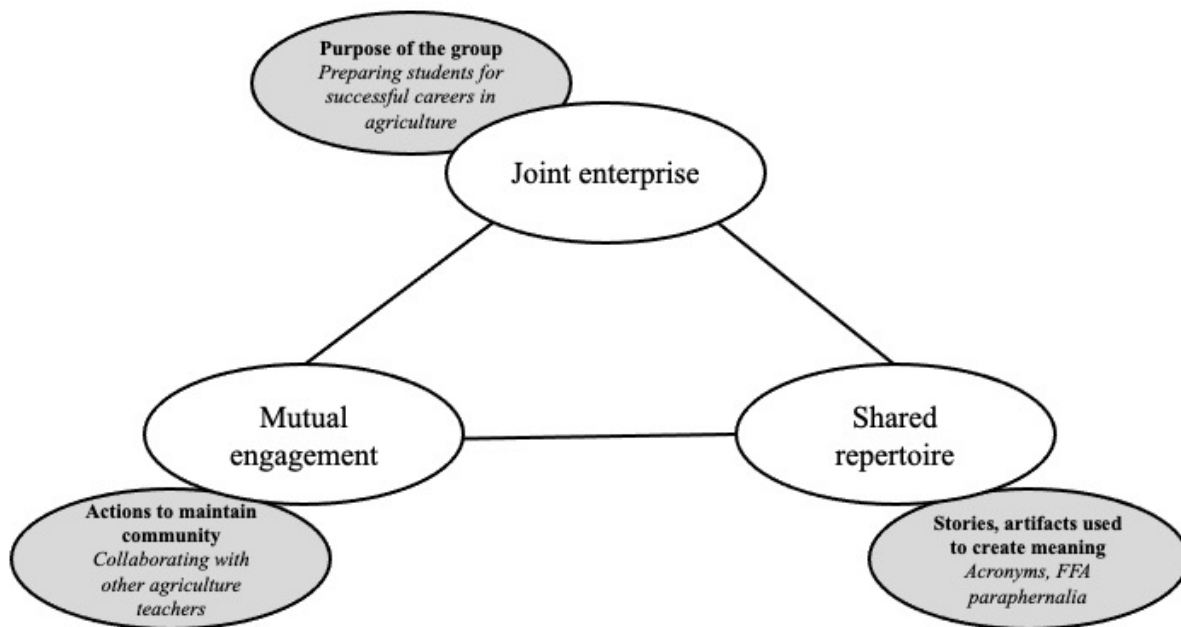
According to Wenger, communities of practice are all around us, as we participate in the practices, norms, and routines both consciously and unconsciously. Examples of communities of practice include families, school groups, and hobby enthusiasts (Wenger, 1998). Communities of practice are situated within a social landscape made up of many communities of practice. In defining a community of practice, Wenger cautioned assigning the term to any group of people. Wenger espoused

the community is not defined by name or location, but as participants engage through the dimensions of joint enterprise, mutual engagement, and shared repertoire. Joint enterprise encompasses the purpose of the group, mutual engagement emphasizes the actions of the members that lead to the maintenance of the community, and shared repertoire includes the stories, artifacts, and actions members use to create meaning.

We posit agriculture teachers participate in a community of practice through attending conferences and meetings, chaperoning students at FFA events, and working with other agriculture teachers at county fairs and events. They also connect through technology via texting, email, or social media. Throughout those events, new members first interact as legitimate peripheral participants (Wenger, 1998). Before new members fully participate in the community, they are exposed to the practices of the community through peripheral participation as they come to understand how the community operates (Wenger, 1998). According to prior research (Claflin et al., 2022), alternatively certified teachers have a range of prior experiences, from being intensely engaged in SBAE activities as students, to having tangential exposure to the practice of the agriculture teacher community, to not even being aware the community existed. In relation to the theoretical framework, agriculture teachers have a joint enterprise towards being successful in preparing students for successful careers in agriculture; mutual engagement occurs when agriculture teachers work together by using and recognizing their shared repertoire (Wenger, 1998; see Figure 1).

Figure 1

Dimensions of Practice in the Agriculture Teacher Community of Practice

Note. Adapted from Wenger (1998).

According to Wenger (1998), practices are part of a shared history within the community, including indicators of competence (Wenger, 1998). Practices within a community are explicit and

implicit, including roles, procedures, criteria, and unspoken rules (Wenger, 1998). For this study, we adopted the explicit and implicit characteristics and expectations of agriculture teachers noted in the literature review as the practices of alternatively certified agriculture teachers within a community of practice. Practice also includes the negotiation of meaning which includes participation and reification. Participation is the process of taking part in actions that encompass membership. Reification involves the making of a process or a product into "thingness." Participation in the community of practice for agriculture teachers would include interacting with other agriculture teachers at conferences or on the phone, while reifications include recognizing and relating to acronyms, being introduced with your FFA district at the fall conference or discussing the number of FFA members or awards won (Traini et al., 2019).

Focusing on learning through participation with Communities of Practice allows a new approach to understanding alternatively certified agriculture teachers as they acquire the practices of agriculture teachers while recognizing the social aspects of learning. Throughout this manuscript, the terms *communities of practice* or *communities* refer to the idea of or specific communities which meet the qualifications put forth by Wenger (1998); in specifying the theoretical framework, we have capitalized the phrase. Going forward, we adopt the assumption agriculture teachers participate in a community of practice due to the connection between previous literature and the theoretical framework.

Purpose and Research Question

This study was part of a larger research project that explored the experiences of alternatively certified agriculture teachers within the agriculture teacher community of practice, grounded in the social learning perspective of Wenger's (1998) Communities of Practice. The specific research question for this study was *how do alternatively certified agriculture teachers acquire the practices of agriculture teachers?*

Reflexivity Statement

As researchers, we align with interpretive and social constructionism paradigms. We believe the world has multiple realities shaped by interpretations (Charmaz et al., 2018; Crotty, 1998) and recognize our prior experiences are integrated with any activity, practice, or analysis (Denzin & Lincoln, 2018). We are all former high school agriculture teachers trained through and working with traditional teacher preparation programs. Reflexive practice is critical to establishing trustworthiness and understanding qualitative research interpretations (Malterud, 2001; Richardson, 2000). We were aware of the importance of unpacking our beliefs and experiences in relation to the phenomenon and during data analysis. We used memos, journaling, and researcher discussions to make sense of our understanding. Additional strategies for maintaining rigor and trustworthiness are outlined in the methods section below.

Methods

This study employed hermeneutic phenomenology to explore the lived experiences of alternatively certified agriculture teachers as they acquired the practices of agriculture teachers. Phenomenology is concentrated on the idea of the lived experience of our day-to-day, ordinary lives (Merriam & Tisdell, 2016; van Manen, 2014). Hermeneutic phenomenology recognizes the point of view of those who experience the phenomena (Cohen et al., 2000), as well as the personal knowledge of the researcher (Lopez & Willis, 2004). This differs from transcendental phenomenology, which requires the researcher to bracket out their experiences (van Manen, 2014). Cohen et al. (2000)

recommend phenomenological studies for research seeking to accentuate participant voices and provide a new perspective to the field. For these reasons, a hermeneutic phenomenological approach was appropriate for this study as we sought to understand the lived experiences of alternatively certified agriculture teachers, along with acknowledging the experiences of the researchers as members of the agriculture teacher community.

Participants in a phenomenological study should be limited to individuals who have experienced the phenomena under investigation (van Manen, 2014), which, for this study, is acquiring the practices of agriculture teachers. Consequently, we viewed all secondary agriculture teachers who held an alternative license in agriculture and/or did not complete a traditional route to agriculture teaching (e.g., a teacher education program in agricultural education) as the population for the study. To achieve a national scope for the study, agricultural education state staff and teacher educators from nine states across the United States were contacted to recommend participants who met the criteria of an alternatively certified agriculture teacher as defined for this study. We aimed to have participants from states representing the three regions of the American Association of Agricultural Education (AAAE; North-Central, Southern, and Western; American Association of Agricultural Educators, 2017). We selected nine states to include in the study, three from each AAAE region. These states were selected because based on conversations we had with state agricultural education leaders and existing literature had significant numbers of alternatively certified agriculture teachers. Representatives from eight states agreed to share a list of names and emails of teachers who met the criteria, with individuals then recruited via email to participate in the study.

Thirteen individuals with experience teaching in nine states agreed to participate in the study and were each assigned pseudonyms. To maintain confidentiality, the states of participants were not disclosed. Seven participants identified as males (Cody, Wade, Evan, Robert, Hayes, Randy, and Aaron) and six identified as females (Hannah, Angela, Erin, Pamela, Mindy, and Karen). Participants had taught SBAE from between one year (Evan) and 26 years (Randy), with seven participants having participated in SBAE as a student (Hannah, Cody, Wade, Evan, Robert, Hayes, Mindy, Aaron). Three of the participants began teaching agriculture with a prior teacher certification in a different content area (Angela, Pamela, Randy), three individuals entered teaching from the agriculture industry (Robert, Aaron, Karen), four participants worked in non-formal education or community-based programming (Evan, Erin, Hayes, Mindy), and three individuals completed teacher education courses and either did not meet licensure requirements or accepted a teaching job before finishing the program (Hannah, Cody, and Wade). One participant, Erin, had taught in states in both the Western and North-Central regions. See Table 1 for additional information about each participant.

Table 1

Characteristics of Participants

Pseudonym	AAAE Region	Gender	# of years teaching SBAE	SBAE background as student?
Aaron	Western	Male	6	Yes
Table Continued				
Angela	North-Central	Female	5	No

Cody	North-Central	Male	3	Yes
Erin	Western North-Central	Female	10	No
Evan	North-Central	Male	1	Yes
Hannah	Western	Female	2	Yes
Hayes	Southern	Male	12	Yes
Karen	North-Central	Female	10	No
Mindy	North-Central	Female	4	Yes
Pamela	North-Central	Female	8	No
Randy	Western	Male	26	No
Robert	North-Central	Male	3	Yes
Wade	North-Central	Male	3	Yes

Interviews are recommended as the primary data collection method of phenomenological research (Cohen et al., 2000; Merriam & Tisdell, 2016; van Manen, 2014) due to the importance of participants sharing their lived experiences and "...the understanding people have of their world and life situation and the meaning they have made of this is usually contained in the narratives or stories they tell…" (Cohen et al., 2000, p. 59). Therefore, we conducted semi-structured interviews, lasting between 45 and 90 minutes, in the winter and spring of 2020 through Zoom, a video conferencing software. Semi-structured interviews allowed for flexibility in questioning while ensuring the questions were still guided around the phenomenon (Merriam & Tisdell, 2016). We asked participants to discuss their background and their explanation of the role and practices of agriculture teachers, with a focus on specific stories and examples. We developed the interview protocol based on the phenomenon, theoretical framework, and prior literature and refined it after pilot interviews. A limitation to our data was the lack of multiple interviews due to the timing of the COVID-19 pandemic in spring 2020 making it challenging to schedule additional interviews as participants shifted to remote teaching.

After interviews were transcribed verbatim, the primary researcher wrote analytic field notes summarizing the content. The researchers read through the transcripts and field notes, jotting initial thoughts and observations as recommended by Maxwell (2013). Throughout the progression of thematic analysis, the lead researcher wrote analytic and reflexive memos, searched for disconfirming evidence and engaged her co-authors in discourse surrounding data analysis and findings (Merriam & Tisdell, 2016). The data analysis process was also grounded in the concept of the hermeneutic circle, based on Heidegger's concept of interpretive phenomenology (Lopez & Willis, 2004). Sloan and Bowe (2014) suggested researchers enter the hermeneutic circle to interpret data by making sense of individual pieces of the data and the entire set of data in a cyclical process between specific and general. For example, when a participant shared a story from their first years of teaching, we interpreted the data both from the individual words and phrases of that participant as well as in relation to their broader background and context. The use of hermeneutic circle in data analysis ensures interpretations honor participants' experiences and are based on quality evidence (Sloan & Bowe, 2014).

As no specific coding methods exist for hermeneutic phenomenological data analysis (Kafle, 2011), we adopted an eclectic coding approach involving both structural and in vivo coding (Saldaña, 2009). Structural coding employs conceptual phrases to portions of the data and is best applied to semi-structured interviews and exploratory research, while in vivo coding utilizes short phrases from the data to recognize the voice of the participants (Saldaña, 2009). Both coding schemes were employed as the researchers made sense of the data and aligned data analysis with the foundations of hermeneutic phenomenology. As coding is cyclical, several rounds of focused coding followed the initial round of eclectic coding (Saldaña, 2009). As the codes were constructed into themes, the lead author engaged in conversations with their co-authors about the phenomenon and identified confirming and disconfirming evidence to ensure the themes reflected the participants' narratives and phenomenon under examination.

To ensure authenticity of the research, we followed the framework advanced by Merriam and Tisdale (2016) concentrating on methodological rigor through credibility, consistency/dependability, and transferability. We employed several strategies to ensure credibility, or that our "findings matched reality," (Merriam & Tisdell, 2016, p. 242) including reflexive practices and peer collaborations, as previously mentioned. Additionally, we used interview transcripts, field notes, and memos to triangulate findings. We also engaged in member checking with participants and asked for their feedback on the generated themes. In addition to the strategies of triangulation, reflexivity, and peer review, we also kept an audit trail to establish confirmability of our research process and findings.

Findings

Four themes were constructed as we sought to answer the research question, *how do alternatively certified agriculture teachers acquire the practices of agriculture teachers?* They include: *here are the keys, go teach; connectors to the community, in it for the kids, and agricultural education is different than anything else.* Practices in the realm of this study are what we do for our work in everyday life. The findings below highlight the lived experiences of our participants as they came to understand what it means to be an agriculture teacher and participate in the community through sharing their own stories about their first years as agriculture teachers. The first two themes, *here are the keys, go teach* and *connectors to the community* relate directly to how the participants acquired the practices in the agriculture teacher community of practice. The themes *in it for the kids* and *agricultural education is different than anything else* provide the social and cultural context in which the acquisition of practices within the community occurs. In fitting with the theoretical framework, these findings showcase not only how the participants acquired the practices of agriculture teachers but also the social and historical context of the agriculture teacher community of practice.

Here Are the Keys, Go Teach

As participants began teaching, even with diverse agricultural backgrounds and teaching experiences, all of them described their first year of teaching as overwhelming, or as Cody put it, a "baptism by fire." As participants shared their experiences, they alluded to some of the sentiments of feeling overwhelmed by the new practices that were not explicitly shared before they began teaching agriculture. They referenced practices of the agriculture teacher community like managing lab spaces (e.g., greenhouses and animal facilities), preparing students for FFA contests, and filling out paperwork. This theme highlights the unfamiliarity with the practices of the agriculture teacher community of practice and the evolving nature of the participants' competence in their role.

The participants in this study came from different backgrounds and experiences, yet all of them described their first year of teaching as being full of feelings of being lost and just needing to survive to the next day. Angela, who had prior teaching experience, described becoming an agriculture teacher

as "…beastly. It's a lot to learn." Pamela portrayed feeling "like a balloon without being tightened down. Kind of floating around trying to figure out what to do." These feelings were also a result of the divide between the expectations and resources of individual school districts and the agriculture teacher community of practice. Both Robert and Hayes spoke of being hired and expected to acquire the practices on their own. Robert said, "they kind of just gave me the keys and said, go teach ag." Hayes expanded,

> In my school system, they were really nice, they gave me a set of keys and said, 'man, you go do a good job.' I mean, there was no indicator from them at all [about how to do the job]. There was no conceptualization. I was going to go down there and some kids were going to weld and plant stuff.

As the participants shared their experiences from their first years of teaching, they expressed how they worked through the feelings of being overwhelmed with the new expectations as an agriculture teacher. Each participant focused on slightly different aspects of the job they felt they needed to overcome. For Karen, it was the language of agricultural education she sought to understand, sharing that "suddenly, you're dropped in this alphabet soup of things and a lot of stuff is just understood. It's not really made explicit." Hannah highlighted "every day is a learning experience" as she's had to learn how to do things on her own, such as creating curriculum for three new courses. Hayes and Aaron both noted how they were learning how to teach, whether it was how to write a lesson plan or run a classroom, including when and how to order supplies or manage a greenhouse. Angela, who formerly taught world languages, discussed the challenges in learning how to teach agriculture since she was "going from teaching a conceptual topic to a contextual topic. That's a big jump."

Yet, the agriculture teachers in the study all shared how they kept going even though they felt lost or faced tasks and unfamiliar experiences. The participants in the study all discussed the amount of work required to figure out what needed to get done in their new roles. Angela and Erin, who were both new to SBAE, specifically shared how they sought out resources online to learn more about agricultural education and FFA. Hannah, Hayes, Aaron, Karen, Erin, and Pamela were all enrolled in coursework related to their teaching certification during their first years of teaching. Hannah talked about the difficulty "because of the added components to the job, such as FFA, and me also being a full-time student while I'm teaching," and the need to "schedule time for everything." However, even with all of the hardships, Karen summed up the general feeling of the participants when she said, "like anything else, if you've decided you're going to do it, you just persist until you get it." With all the obstacles they faced, participants still admitted by year three of teaching, they were getting into a rhythm and knowing what to expect. Several of the participants noted it simply took a few years to figure out what needed to be done and feel confident in their teaching skills.

Connectors to the Community

As participants shared their experiences, they identified individuals who connected them to the agriculture teacher community of practice. These connectors modeled the practices of the community and introduced the agriculture teachers in the study to other members of the community. The connectors were agriculture teachers who served as formal and informal mentors for the new agriculture teachers. Several participants recognized their high school agriculture teachers as their initial introduction through observations as students. For instance, Hayes recounted accompanying his agriculture teacher on judging trips and noting their actions in the classroom as serving as the foundation for his understanding of the role of an agriculture teacher. However, he noted the disconnect between being an agriculture student and teacher. Hayes explained while he understood several of the responsibilities of an agriculture teacher such as teaching, advising FFA, and being involved with the community, "you

don't really know what the day to day is and how to plan for all of that." The participants who were involved in SBAE as students didn't simply assume they knew how to be an agriculture teacher just because they were in the classroom. Instead, they employed their agriculture teachers as mentors and connectors to the agriculture teacher community.

Beyond participants' high school teachers, community members, SBAE state staff, and local agriculture teachers were referenced as connectors as they answered questions and assisted the participants in deciphering their role as agriculture teachers. Mindy relied on the local FFA Alumni members and family members who were familiar with the community to understand the expectations and help her network. Participants who left industry to pursue teaching or who received assistance in navigating the certification process recognized state staff as helping them understand expectations of the community. However, connectors were most often agriculture teachers from neighboring communities who reached out to the agriculture teachers in the study or were recommended as a resource. For instance, Angela was advised within days of being hired to contact a local veteran teacher to give her a "crash course" in SBAE and FFA. Hayes recalled a local agriculture teacher called him when he was hired and offered to help in any way he could, whether it was about ordering plugs for the greenhouse or preparing for FFA events. The participants who taught in multiple-teacher programs recognized connectors within their own school building who provided insight and the opportunity to observe their co-teachers in and out of their classrooms.

Additionally, participants noted the importance of attending FFA events and agriculture education professional development as affording them the opportunity to notice the practices of the agriculture teacher community and gain new skills. Beyond the new content and understanding these events provided, they also allowed for time for agriculture teachers to connect and network which was invaluable as the participants acquired the practices of agriculture teachers. Evan elaborated, "you know, that's who you're going to get your more advice from and how you realize what it all is about. Coming from the source itself to figure it all out." As Randy talked about attending his first state FFA convention and getting a sense for agricultural education, he indicated the significance of other agriculture teachers helping to show the way. At the state convention, Randy was assigned to help with state proficiency award judging and had another agriculture teacher share the responsibilities of the task,

> Here was a veteran [teacher] that didn't know me as a brand-new pup coming in [to the profession]. He didn't really care who I was or where I was at or anything. He just said, 'hey, here's the expectations,' and that was helpful.

The following two themes, *in it for the kids* and *agricultural education is different from anything else*, provide insight into the context of the social and historical communities of practice in which the participants were acquiring the practices of the agriculture teacher community.

In it for the Kids

As participants shared why they were an agriculture teacher, the discussion centered on their students. While being a teacher to support students does not refer to a specific process, it provides important insight to the social context of the agriculture teacher community of practice. Participants began by sharing their experiences with teaching strategies, classroom management, managing facilities, designing curriculum, training FFA teams, partaking in professional development, sharing ideas, and supporting each other as agriculture teachers. However, the reasoning behind the decisions they made and actions they took was in the pursuit of supporting students. Karen talked about how she focuses on preparing students for careers in agriculture keeping in mind the skills and knowledge they need to be successful. She also noted another agriculture teacher shared at a FFA contest "we're all going to the very best we can and make this work for the kids," which helped solidify her role in

agricultural education. Aaron discussed the focus of students in regard to receiving feedback on his teaching noting, "I've been able to learn a lot. I mean, I guess the biggest reason you do it is for the kids."

Hayes shared how he views other agriculture teachers based on whether they are "in it for the kids", especially because his desire to help students is the reason he teaches. He mentioned a few agriculture teachers he only sees a few times a year at conferences, but never at FFA events, even though they are local to his area. Hayes wondered if "they don't take kids anywhere… why the hell are they doing it?" The participants also discussed the purpose of SBAE in relation to the importance of students whether it was supporting students in their transition to the real world, creating leaders, or ensuring they knew about agriculture and where their food comes from. Erin was energized by being able to share her passion of taking care of the land and "preparing students to be professional members of the community… we're raising kids who are going to be advocating for the future of agriculture," as it allowed her to "[be] able to kind of guide the future of the world."

The notion of student success was a salient idea as participants discussed their reasons for becoming an agriculture teacher, predominantly in relation to student leadership development and learning about agriculture. As Angela shared her role as an agriculture teacher "first and foremost is to help students become better critical thinkers," she also shared about her realization of the potential of agriculture to solve real world problems incorporating all subject areas including social studies and science. Angela noted the dichotomies of the focus of career preparation versus agriscience, as well as a focus on FFA in the classroom, compared to agricultural content from her colleagues. These distinctions between career development and leadership are clear throughout the data, but the purpose and context for the practices of the community is supporting students and being "in it" for the kids.

Agricultural Education is Different from Anything Else

As participants shared their experiences with the agriculture teacher community, they noted how SBAE was distinctive in its own way. Participants mentioned how agricultural education wasn't like other subject areas, especially with the amount of contact and camaraderie between agriculture teachers. Wade mentioned how there isn't "anything like it" when discussing SBAE. He specifically referenced the network of agriculture teachers in the state being different from his wife who teaches elementary school and only communicates with the teachers in her school district. Pamela, who previously taught science, illuminated the variation in workload sharing "there's just so much that's more involved with an ag teacher than it would be if I just taught biology."

Two participants noted the difference of SBAE with the recognition there were tones of elitism. Randy and Angela expressed the notion SBAE could be exclusive, as Angela shared other agriculture teachers "have this belief that Ag Ed is special and more important than other subjects… and we work so much harder than other teachers." Randy maintained while SBAE "has lots of great things going on…. we have great [professional development] and we have great camaraderie, and it makes it easy to become a little more elitist that way." He shared the agriculture teacher community needs to be cognizant of the demeanor presented, especially for "industry-based folks so they get that same sense of being part of the community." Other participants were very proud of the distinction of SBAE being unlike any other teaching area. This recognition was attributed to the community and camaraderie shared amongst agriculture teachers on the local, state, and national levels. Hannah attributed the agriculture teacher community for the reasons she taught agriculture, especially due to sharing resources, specifically noting a workshop where everyone in attendance shared lessons and files. Hayes took great pride in knowing most of the agriculture teachers in his state due to attending professional development workshops together and attending FFA events. Cody highlighted the connection between

agriculture teachers and how they are set apart from others, because "ag teachers know how to work with one another. They just understand each other where we are. We're not regular. We don't get done at three o'clock. We have the same lifestyle." Participants acknowledged the uniqueness of the agriculture teacher community, with the majority boasting about how the community was superior to other teachers because of the camaraderie among the group and the expectations of the role of an agriculture teacher.

Discussion

This study sought to answer the research question, *how do alternatively certified agriculture teachers acquire the practices of agriculture teachers*? as part of a larger study exploring the experiences of alternatively certified agriculture teachers within the agriculture teacher community of practice. Four themes emerged in the findings: (1) *here are the keys, go teach*; (2) *connectors to the community*, (3) *in it for the kids*, and (4) *agricultural education is different from anything else*. The findings align with the tenets of social learning and Wenger's (1998) Communities of Practice, as the participants gained knowledge of the practices of agriculture teachers through participating with members of the agriculture teacher community of practice. The first two themes indicated how the participants acquired the practices, with the third and fourth themes highlighting the context of the acquisition. Overall, these findings suggest alternatively certified agriculture teachers are learning and making meaning of what it means to be an agriculture teacher through participation in the agriculture teacher community of practice.

In regard to the theoretical framework, as participants shared their experiences as beginning agriculture teachers, and how they acquired the practices of the agriculture community, they acknowledged the social aspects of learning espoused by Wenger (1998) in *Communities of Practice*. They recognized the joint enterprise of the agriculture teacher community as being focused on student success and advocating for agriculture, as well as the reasons that influenced them to become an agriculture teacher. Participants referenced the joint enterprise of the community through their statements and the theme, *in it for the kids*. Wenger (1998) highlighted joint enterprise, or the undertaking of the group, is "defined by the participants in the very process of pursuing it," (p. 77) and therein keep each member accountable in their actions toward the goal. Additionally, communities of practice demonstrate a larger system reflecting historical changes and outside conditions. These ideas are indicated in the findings as participants shared slightly different variations of their purpose beyond helping students and sharing about agriculture such as career preparation, agriscience skills, and leadership development.

The findings of this study indicate the participants were involved in various forms of mutual engagement, in fact, this is how participants were mainly acquiring the practices of agriculture teachers. Participants referenced connecting with other agriculture teachers through phone calls, emails, attending FFA and agriculture teacher events, as well as participating in agriculture teacher specific social media pages. Wenger (1998) noted engagement in a community occurs in whichever format is required to make those connections possible. As participants became more involved in the agriculture teacher community, they were better able to make meaning of important pieces of information whether it was discussing teaching tips while huddled up together at a FFA event or reading the FFA contest tips sent out by a veteran teacher over a state agriculture education listserv. The theme *connectors to the community* illuminates forms of mutual engagement of the community through teachers reaching out to each other via phone, visiting each other in person, talking to other agriculture teachers in the school building or community, and working together at the state FFA convention. Likewise, participants noted a shared repertoire (i.e. stories, artifacts, and actions) with the participants

referencing acronyms, teaching, managing a greenhouse, completing paperwork, and simply knowing what to do for teaching, FFA, and state-level agricultural education requirements.

Concerning learning in practice and the theme, *connectors to the community*, Wenger (1998) expounded on the ideas of boundary crossers, brokers, and generational encounters. Communities of practice, including the agriculture teacher community are always fluctuating with members coming and going. As individuals participate in multiple communities of practice, they are considered boundary crossers as they move among the social landscape (Wenger, 1998). Brokers, or in this study, *connectors*, are individuals within a community of practice who assist newcomers in making connections, exposing them to practices, and assist in meaning making (Wenger, 1998). It was through the connectors or mentors the participants in the study gained access to the community and the practices. The idea of mentoring in agricultural education has been a focus of prior research (Jones et al., 2014; Lambert et al., 2010) and serves as a recommendation to alleviate teacher attrition (Lemons et al., 2015), but there have been no other studies that link mentoring to alternatively certified agriculture teachers.

Lastly, participants noted *agricultural education is different from anything else* as they discussed not only the agriculture teacher community, but SBAE as a whole. These differences were noted regarding the expectations and amount of work required, as well as the connection and camaraderie among agriculture teachers. Two participants noted the elitism that exists in the agriculture teacher community of practice, when members espoused the belief agriculture teachers were better than teachers in other disciplines. It is important to note communities of practices are not always harmonious. These findings are supported in the work of Claflin et al. (2022), as the participants in that study found the agricultural education community welcoming, but exclusive through assumptions regarding the jargon and lack of support for participants who were new to SBAE. The tensions that exist are not a negative; instead, the conflict and challenges serve as a type of participation. Wenger (1998) noted the duality that occurs in a community of practice as there is "...success and failure,… alliance and competition,… ease and struggle, authority and collegiality…. communities of practice have it all," (p. 77).

Conclusions, Recommendations, and Implications

This study offers a fresh perspective for studying alternatively certified agriculture teachers while reinforcing the usefulness of utilizing Communities of Practice (Wenger, 1998) as a theoretical framework in agricultural education. The findings indicated participants began teaching with a desire to support students studying agriculture. They learned about the expectations of being an agriculture teacher from other agriculture teachers through informal conversations in-person or through technology. The more involved the AC teacher was, the more they could make sense of what it meant to be an agriculture teacher and the spoken and unspoken practices expected of them.
Both practitioners and researchers in SBAE should avoid viewing alternatively certified teachers with a deficit view due to their levels of preparedness or knowledge of SBAE. Alternatively certified agriculture teachers may have completed a teacher preparation program and bring relevant educational and occupational experience into the classroom (Claflin et al., 2020, 2022; Rocca & Washburn, 2006). Instead, as Bowling and Ball (2018) recommend, the profession should take "a supportive and proactive stance," (p. 118).

In regard to using Communities of Practice, this study was the one of the first in agricultural education to adopt the theory (or its corresponding concept, *Landscapes of Practice*) as a framework to explore the practices of agriculture teachers, whereas previous research has centered on managing and navigating work expectations (Traini et al., 2019, 2020, 2021). Recognizing agriculture teachers as a

community of practice would allow for a broader understanding of the profession. While this study focused solely on alternatively certified agriculture teachers, an examination of all agriculture teachers through the lens of Communities of Practice would provide new perspectives, especially around the unspoken norms and expectations, that would be relevant to induction programs and efforts towards inclusion.

Mentoring, induction, and credit-bearing programs provide essential support for early-career agriculture teachers. We recommend the following to enhance current programs while being aware of the practices we expect of all agriculture teachers, especially those who are alternatively certified. First, we need to recognize learning is occurring concurrently as agriculture teachers make meaning on the job and programming should be designed to complement that context while also providing guidance. Second, it is important that as we welcome and explain the agriculture teacher community to newcomers to the profession, we discuss the norms, acronyms, and ways to participate that are integral to becoming a member of the agriculture teacher community of practice. Third, we must reflect on how we explain the purpose and practices of SBAE to incoming AC teachers and avoid tones of elitism (e.g., agricultural education is better than other subject areas) or assumptions that may make teachers feel unwelcome. Fourth, the mutual engagement or connection between agriculture teachers is the primary way the participants in the study acquired the practices of agriculture teachers. We recommend mentoring program leaders prepare mentors to approach their mentoring from the stance of helping mentees make connections to other agriculture teachers and serve as a guide to the expectations of an agriculture teacher while helping them make meaning of those experiences. This element is incredibly important to recognize as we seek to support alternatively certified agriculture teachers nationwide, with approximately 16% of new agriculture teachers having an alternative certification (Foster et al., 2020). These recommendations are also relevant outside of formal programming (i.e., teacher preparation programs, professional development, etc.) for state leaders and agriculture teachers to adopt.

This study was limited to how alternatively certified agriculture teachers acquire the practices of the profession. Moving forward, future research should consider how alternatively certified agriculture teachers engage in the agriculture teacher community and what their membership looks like. The answers to these questions can further provide insight into ways to welcome and support alternatively certified agriculture teachers as they enter the profession. Furthermore, this study focused broadly on alternatively certified agriculture teachers' practices. It did not specifically focus on how they taught or effectiveness in the classroom/laboratory, which echoes Robinson's (2010) call for additional research on the efficacy and level of understanding of alternatively certified agriculture teachers and the courses they teach, after finding alternatively certified agriculture teachers in Oklahoma talked about effective instruction but did not exhibit it through the course of that particular study.

We encourage all individuals involved in SBAE to consider ways to mentor, support, and bolster endeavors of individuals who are alternatively certified. Alternatively certified teachers are not a homogenous group as prior research (Claflin et al., 2020, 2022) and as this study highlights. Alternatively certified agriculture teachers have a range of teaching experience, may have differing levels of experience in SBAE, and can bring important life experience to agriculture classrooms. While this research does not answer all the questions, it provides a foundation for how alternatively certified agriculture teachers are acquiring the practices of the profession and sheds noteworthy insight into the experiences of this population of teachers.

References

American Association for Agricultural Education. (2017). *Constitution and bylaws of the American Association for Agricultural Education*. The American Association for Agricultural Education. http://aaaeonline.org/resources/Documents/National/AAAE%20National%20Constitution%20By%20Laws%20-%20May%202017%20-%20Final.pdf

Barry, D. M., Warner, A. J., LaRose, S. E., Colclasure, B. C., & Osborne, E. W. (2022). Personal resilience of first-year, alternatively certified agriscience teachers. *Advancements in Agricultural Development*, *3*(1), 103–114. https://doi.org/10.37433/aad.v3i1.183

Bowling, A., & Ball, A. (2018). Alternative certification: A solution or an alternative problem? *Journal of Agricultural Education*, *59*(2), 109–122. https://doi.org/10.5032/jae.2018.02109

Brown, C. (2009). Pass it on: Alternatively certified teachers' advice to prospective alternate route educators. *International Journal of Educational Leadership Preparation*, *4*(4), 1-9. https://files.eric.ed.gov/fulltext/EJ1071376.pdf

Camp, W. G., Broyles, T., & Skelton, N. S. (2002). *A national study of the supply and demand of teachers of agricultural education in 1999-2001*. Virginia Polytechnic Institute and State University. http://aaaeonline.org/Teacher-Supply-andDemand/

Charmaz, K., Thornberg, R., & Keane, E. (2018). Evolving grounded theory and social justice inquiry. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (5th ed., pp. 411–436). Sage Publications.

Claflin, K., Lambert, M. D., & Stewart, J. (2020). An investigation of the routes to certification and turnover intentions of Wisconsin agriculture teachers. *Journal of Agricultural Education*, *61*(1), 128–139. https://doi.org/10.5032/jae.2020.01128

Claflin, K., Stewart, J., & Traini, H. Q. (2022). The best of both worlds: Exploring the experiences of alternatively certified agriculture teachers. *Journal of Agricultural Education*, *63*(2), 219–237. https://doi.org/10.5032/jae.2022.02219

Cohen, M. Z., Kahn, D. L., & Steeves, R. H. (2000). *Hermeneutic phenomenological research: A practical guide for nurse researchers*. Sage Publications.

Consuegra, E., Engels, N., & Struyven, K. (2014). Beginning teachers' experience of the workplace learning environment in alternative teacher certification programs: A mixed methods approach. *Teaching and Teacher Education*, *42*, 79–88. https://doi.org/10.1016/j.tate.2014.05.001

Darling-Hammond, L., Berry, B. T., Haselkorn, D., & Fideler, E. (1999). Teacher, recruitment, selection, and induction: Policy influences on the supply and demand and quality of teachers. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (1st ed., pp. 183–232). Jossey-Bass Publishers.

Denzin, N. K., & Lincoln, Y. S. (2018). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (5th ed., pp. 1–23). SAGE Publications, Inc.

Duncan, D. W., & Ricketts, J. C. (2008). Total program efficacy: A comparison of traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, *49*(4), 38–46. https://doi.org/10.5032/jae.2008.04038

Eck, C., Robinson, S., Ramsey, J., & Cole, K. (2019). Identifying the characteristics of an effective agricultural education teacher: A national study. *Journal of Agricultural Education*, *60*(4). https://doi.org/10.5032/jae.2019.04001

Feistritzer, C. E., & Haar, C. K. (2008). *Alternate routes to teaching*. Pearson/Merrill/Prentice Hall.

Garcia, E., & Weiss, E. (2019). *U.S. schools struggle to hire and retain teachers: The second report in 'the perfect storm in the teacher labor market' series*. Economic Policy Institute. https://www.epi.org/publication/u-s-schools-struggle-to-hire-and-retain-teachers-the-second-report-in-the-perfect-storm-in-the-teacher-labor-market-series/

Gardner, D. P. (1983). *A Nation at Risk: The Imperative for Educational Reform. An Open Letter to the American People. A Report to the Nation and the Secretary of Education.* https://eric.ed.gov/?id=ED226006

Jones, C. K., Kelsey, K. D., & Brown, N. R. (2014). Climbing the steps toward a successful cooperating teacher/student teacher mentoring relationship. *Journal of Agricultural Education*, *55*(2), 33–47. https://doi.org/10.5032/jae.2014.02033

Kinney, J. C. (2011). *An analysis of North Carolina lateral entry teachers perceived ability to lead quality FFA programs* [Master's thesis, North Carolina State University]. NC State University Libraries.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Lambert, M., Smith, A., & Ulmer, J. (2010). Factors influencing relational satisfaction within an agricultural education mentoring program. *Journal of Agricultural Education*, *51*(1), 64–74. https://doi.org/10.5032/jae.2010.01064

Lemons, L. L., Brashears, M. T., Burris, S., Meyers, C., & Price, M. A. (2015). Factors contributing to attrition as reported by leavers of secondary agriculture programs. *Journal of Agricultural Education*, 56(4), 17–30. https://doi.org/10.5032/jae.2015.04017

Lopez, K. A., & Willis, D. G. (2004). Descriptive versus interpretive phenomenology: Their contributions to nursing knowledge. *Qualitative Health Research*, *14*(5), 726–735. https://doi.org/10.1177/1049732304263638

Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *The Lancet*, *358*(9280), 483–488. https://doi.org/10.1016/S0140-6736(01)05627-6

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Sage Publications.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Moore, G. E. (1976). Teaching effectiveness of entry-level teachers of vocational agriculture from college versus industry. *The Journal of Vocational Education Research*, *1*(1), 45–58.

Rayfield, J., Croom, B., Stair, K., & Murray, K. (2011). Differentiating instruction in high school agricultural education courses: A baseline study. *Career and Technical Education Research*, *36*(3), 171–185. https://doi.org/10.5328/cter36.3.171

Rice, J. E. (2012). *State supervisors' perceptions of teacher efficacy regarding alternatively certified/licensed secondary agriculture teachers* (Publication No. 3495) [Doctoral dissertation, West Virginia University]. The Research Repository @ WVU.

Richardson, L. (2000). Evaluating ethnography. *Qualitative Inquiry*, *6*(2), 253–255. https://doi.org/10.1177/107780040000600207

Roberts, R., Wittie, B. M., Stair, K. S., Blackburn, J. J., & Smith, H. E. (2020). The dimensions of professional development needs for secondary agricultural education teachers across career stages: A multiple case study comparison. *Journal of Agricultural Education*, *61*(3), 128–143. https://doi.org/10.5032/jae.2020.03128

Robinson, J. S. (2010). A qualitative analysis of alternatively certified agricultural education teachers on their first year of employment in the teacher profession. *Journal of Southern Agricultural Education Research, 60*(1), 25–39. http://www.jsaer.org/pdf/Vol60/2010-60-003.pdf

Roberts, T. G., & Dyer, J. E. (2004). Inservice needs of traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, *45*(4), 57–70. https://doi.org/10.5032/jae.2004.04057

Robinson, J. S., & Edwards, M. C. (2012). Assessing the teacher self-efficacy of agriculture instructors and their early career employment status: A comparison of certification types. *Journal of Agricultural Education*, *53*(1), 150–161. https://doi.org/10.5032/jae.2012.01150

Robinson, S., & Haynes, C. (2011). Value and expectations of supervised agricultural experiences as expressed by agriculture instructors in Oklahoma who were alternatively certified. *Journal of Agricultural Education*, *52*(2), 47–57. https://doi.org/10.5032/jae.2011.02047

Rocca, S. J., & Washburn, S. G. (2006). Comparison of teacher efficacy among traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, *47*(3), 58–69. https://doi.org/10.5032/jae.2006.03058

Ruhland, S. K., & Bremer, C. D. (2003). Perceptions of traditionally and alternatively certified career and technical education teachers. *Journal of Vocational Education Research*, *28*(3). https://doi.org/10.5328/JVER28.3.285

Saldaña, J. (2009). *The coding manual for qualitative researchers*. Sage Publications.

Sfard, A. (1998). On two metaphors for learning and the dangers of choosing just one. *Educational Researcher*, *27*(2), 4–13. https://doi.org/10.2307/1176193

Smith, A. R., Lawver, R. G., & Foster, D. D. (2017). *National Agricultural Education Supply and Demand Study, 2016 executive summary*. http://aaaeonline.org/Resources/Documents/NSD2016Summary.pdf

Stair, K., Figland, W., Blackburn, J., & Smith, E. (2019). Describing the differences in the professional development needs of traditionally and alternatively certified agriculture teachers in Louisiana. *Journal of Agricultural Education*, *60*(3). https://doi.org/10.5032/jae.2019.03262

Talbert, B. A., Vaughn, R., Croom, B., & Lee, J. (2014). *Foundations of agricultural education* (3rd ed.). Professional Educators Publications.

Traini, H. Q., Claflin, K., Stewart, J., & Velez, J. J. (2019). Success, balance, but never both: Exploring reified forms of success in school-based agricultural education. *Journal of Agricultural Education*, *60*(4). https://doi.org/10.5032/jae.2019.04240

Traini, H. Q., Stewart, J., & Velez, J. J. (2021). Navigating the social landscape of school-based agricultural education: A hermeneutic phenomenology. *Journal of Agricultural Education*, *62*(1), 61-76. http://doi.org/10.5032/jae.2021.01061

Traini, H. Q., Yopp, A. M., & Roberts, R. (2020). The success trap: A case study of early career agricultural education teachers' conceptualizations of work-life balance. *Journal of Agricultural Education, 61*(4), 175-188. http://doi.org/10.5032/jae.2020.04175

van Manen, M. (2014). *Phenomenology of practice: Meaning-giving methods in phenomenological research and writing*. Left Coast Press.

Wenger, E., McDermott, R. A., & Snyder, W. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Harvard Business School Press.

Wegner, E., & Nückles, M. (2015). Knowledge acquisition or participation in communities of practice? Academics' metaphors of teaching and learning at the university. *Studies in Higher Education*, *40*(4), 624–643. https://doi.org/10.1080/03075079.2013.842213

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.