A QUALITATIVE ANALYSIS OF ALTERNATIVELY CERTIFIED AGRICULTURAL EDUCATION TEACHERS ON THEIR FIRST YEAR OF EMPLOYMENT IN THE TEACHING PROFESSION

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Abstract
This qualitative study sought to describe the perceptions of first-year Oklahoma AC teachers regarding their epistemological beliefs of effective teaching using the Dunkin and Biddle (1974) model as a frame for collecting and analyzing data. Data were collected from six AC teachers who participated in in-depth, face-to-face interviews regarding their epistemological beliefs related to effective teaching. Additionally, these AC teachers participated in a resident teacher program designed to assist first-year teachers in perfecting their trade. Findings indicated that effective teachers control the classroom, motivate students, explain concepts clearly, relate content to students’ lives, find ways to engage students, make learning fun, and care for students. Most of these teachers emphatically felt they were effective in the classroom, and they had their own rationale for their epistemological beliefs. However, in contrast to what is known about excellence in the classroom, none of their beliefs dealt directly with student achievement. Results of this study support current efforts in professional development and credit courses for these teachers, which concentrate on the pedagogical and methodological skills needed to meet students’ needs as it relates to hands-on classroom and laboratory instruction.
Introduction/Theoretical Framework

Teacher shortage is a current issue facing school systems in America (Hess, 2000; Ruhland & Bremer, 2002). There are not enough certified teachers, and the demand for highly qualified school-based teachers is as strong as ever (Feistritzer & Haar, 2008; Good, McCaslin, Tsang, Zhang, Wiley, Bozack, & Hester, 2006). This problem has been recognized in all domains of teaching with the greatest demands in the areas of math and science (Hess, 2000). Additionally, the need for agricultural education teachers in America has not escaped the phenomenon (Camp, Broyles, & Skelton, 2002; Kantrovich, 2007).

Although the need for additional qualified teachers continues to escalate, teacher training institutions are struggling to produce the quantity of teachers needed to fill the voids created by retirement and attrition (Steadman & Simmons, 2007). Lynch (1996) pronounced, “Colleges and universities have diminished greatly their capacity to produce teachers for our nation’s systems of vocational and technical education” (p. 12). As such, alternatively certified (AC) teachers are being employed in public education systems to help meet this need (Rocca & Washburn, 2006).

Historically, the main purpose for alternative certification in education was to offset the shortage of teachers across the country (Shoho & Martin, 1999). Feistritzer and Haar (2008) stated, “Alternative route programs, by their very nature, are established to meet specific needs for specific teachers in specific subject areas in specific schools” (p. 26). Today, virtually every state has an alternative certification program for teachers (Darling-Hammond, 2000; Feistritzer & Haar, 2008; Lynch, 1996; Walsh & Jacobs, 2007). However, alternative certification has not necessarily resulted in success. In fact, the dedication of AC teachers has been called into question. Shen (1997) found AC teachers did not believe teaching would be their lifelong career and as such did not intend to retire in the teaching profession. A study by Rocca and Washburn (2006) supported Shen’s findings by pronouncing “. . . alternatively certified teachers are typically those who pursue agriculture teaching as a second career choice” (p. 66). Further, Littleton and Larmer (1998) determined that AC teachers in Texas experienced greater attrition rates than did their traditionally certified counterparts. A reason for the lack of dedication could be due to the misconception that teaching is easy (Lortie, 1975). However, Joerger and Boettcher (2002) stated, “. . . teaching may be one of the most difficult of all professions to master” (p. 587).

Ruhland and Bremer (2002) recognized that AC teachers oftentimes bring industry experience with them to the classroom. In fact, the reasons individuals enter the teaching profession via alternative routes consist of having a change of career interests and the amount of time and effort devoted to obtaining a teaching degree via the traditional route (Davis, Impara, Launey-Rodolf, & Dahlem, 2006).

Because of the emergence of AC teachers, quality has been called into question. Feistritzer and Haar (2008) concluded, “The national challenge is for the states to achieve highly qualified teachers in every classroom” (p. 164). Yet, understanding what teachers should know and be able to do to be effective at their trade is not an easy task. Hess (2000) stated, “Currently, there is no canon for educators. There is some agreement on what teachers should know but no
consensus on how to train good teachers or ensure that they have mastered essential skills or knowledge” (p. 169).

Rosenshine and Furst (1971) defined clarity, variability, enthusiasm, being task oriented, and providing students an opportunity to learn as the criterion characteristics of effective teachers. Roberts and Dyer (2004) found that to be an effective, agriculture teachers should focus on the following eight categories: instruction, FFA, SAE, building community partnerships, marketing, professional growth/professionalism, program planning, and personal qualities (p. 93). However, the authors also pointed out that “being an effective agriculture teacher goes beyond classroom teaching” (p. 94).

Davis et al. (2006) found that AC teachers in Oklahoma perceived their most important needs were in the areas of “classroom management, time management, content knowledge, discipline/behavior management, and providing additional support to students with special needs” (p. 16-17). Lynch (1996) maintained vocational and technical education teachers need to have “knowledge of the learner, pedagogy, instructional technology, and professional education” (p. 17). Lynch (p. 18) further stated,

Knowledge in this broad professional education category ranges from the ability to manage such highly touted technical skills as preparing lesson plans, assessment instruments and processes, and software packages to evaluating research in human learning and development, cognition, and classroom socialization. It includes drawing on subject matter, general education, and learning theory to develop curriculum, choose diverse methods to match the learning styles of diverse students, and to anticipate results.

It is important to understand how teachers develop their knowledge of teaching and learning (Hofer & Pintrich, 1997). Specifically, Young and Edwards (2006) asked the question, how do AC teachers perceive and come to know what good teaching consists of since they may not have created mental images of effective teaching due to a lack of pedagogical experience (i.e., courses in theory and student teaching)?

Epistemological beliefs theory is a form of constructivism (Darling-Hammond & Bransford, 2005; Korthagen & Kessels, 1999) and serves to assist people in discovering how they come to know and make meaning of their experiences (Hofer & Pintrich, 1997). “Epistemology is an area of philosophy concerned with the nature and justification of human knowledge” (Hofer & Pintrich, 1997, p. 88). Wideen, Mayer-Smith, and Moon (1998) concluded novice teachers have mental images of what effective teaching looks like. To account for these mental perceptions, Korthagen and Kessels (1999) developed a conceptual model concerning the learning process and development of novice teachers and the images they have concerning the teaching and learning process. This model begins with the ways in which novice teachers visualize their experiences (Gestalt). Once teachers have a mental picture of what they are doing, they can be influenced at the Gestalt level by an authority figure (e.g., teacher educator) and be encouraged to consider their prior knowledge per the teaching and learning process to determine certain schemas that will help them be more successful in the classroom. These schemas are based upon what the teacher perceives to be effective and ineffective strategies which aid or hinder the
students’ ability to understand the material presented. Once schemas are developed, the teacher can then begin to relate their actions to theory.

Further, the Dunkin and Biddle (1974) model developed to study classroom teaching was used to categorize AC teacher responses. Their model suggested teachers encounter four variable categories: presage, context, process, and product. Specifically, presage variables consist of how a teacher’s former experiences affect their behavior and ability to teach. Context variables relate to the types of students in which a teacher inherits and the environment in which he/she practices. Process variables involve the interaction between the teacher and the students during the teaching and learning process. Lastly, product variables encompass student achievement related to the learning environment. Therefore, using Dunkin’s and Biddle’s (1974) variables as a frame, what are AC teachers’ epistemological beliefs regarding effective teaching?

**Purpose and Objectives**

The purpose of this qualitative study was to describe the perceptions of first-year Oklahoma AC teachers regarding their epistemological beliefs of effective teaching using the Dunkin and Biddle (1974) model as a frame for collecting and analyzing data. The following research questions guided the study.

1. What experiences do AC teachers bring to the classroom?
2. How do AC teachers believe they learn best as opposed to how they believe their students learn best?
3. What is the preferred teaching style of AC teachers?
4. What do AC teachers perceive the qualities and traits of effective teachers to be?
5. What is the perceived level of teaching effectiveness of first year AC teachers?

**Methods**

The study used qualitative methods to collect and analyze data. Dooley (2007) posited with qualitative research, “... the research design is emergent and flexible, the sample size is small, and the researcher spends considerable time in the natural setting” (p. 34). Merriam (1995) stated qualitative research can be used for all the following reasons:

- Clarifying and understanding phenomena and situations when operative variables cannot be identified ahead of time; finding creative or fresh approaches to looking at over-familiar problems; understanding how participants perceive their roles or tasks in an organization; determining the history of a situation; and building theory, hypotheses, or generalizations. (p. 52)

This study focused on all first-year Oklahoma AC teachers (N = 6) in which the researcher was serving as the university supervisor on the resident teacher (RT) committee. The RT committee is Oklahoma’s version of an induction program designed to assist first-year teachers. Three individuals (principal, mentor, and university supervisor) serve on the RT committee to assist the first-year teacher during the entry year. These individuals observe the resident teacher three times throughout the course of the academic school year and offer feedback, support, mentorship, and suggestions for improvement. At the end of the academic year, once all
committee members have made their observations, a committee meeting is scheduled to inform the teacher of his/her status. A recommendation is then made by the committee to either “pass” the teacher and allow him/her to achieve full licensure or to “repeat” the RT program for another year.

Data used for this study consisted of field observations and interview responses to a semi-structured protocol. The researcher personally visited each of these teachers three times during the 2007–2008 academic year. Each visit resulted in the researcher observing the RT teacher between two and four class periods. On average, the researcher conducted 10 hours of classroom observation per teacher. Each teacher was observed in September, February, and April.

The open-ended interviews occurred with each teacher at the end of the school year once all committee meetings had been finalized. Specifically, the interview protocol was developed by the researcher. For consistency, the researcher conducted and transcribed (verbatim) all interviews to identify emerging patterns and themes (Patton, 2002). Member checks were achieved for credibility (Merriam, 1995) by submitting the transcriptions, via e-mail, to the teachers to verify the data were accurate (Dooley, 2007). Dependability, which refers to the reliability of the data over time, (Guba & Lincoln, 1989) was accounted for by adhering to a rigorous set of guidelines during each interview session. To ensure confirmability of the data (Guba & Lincoln), the researcher accounted for personal bias by monitoring the data throughout the entirety of the study. Specifically, the researcher maintained accuracy of the data by considering each teacher’s response on every question asked through conducting a line-by-line analysis of the transcribed data.

The participants were instructed to respond to questions from the interview protocol, which allowed participants to expound upon their thoughts and elaborate whenever necessary. Additional probing questions were asked to the participants to help clarify the responses. The researcher tape-recorded the interviews and took handwritten field notes throughout, which were compared with interview responses as a means to triangulate the data for credibility and dependability (Merriam, 1995).

Further, themes were used to more adequately reflect the findings of the study (Dooley, 2007). Specifically, the themes were framed on the four categories of variables according to the Dunkin and Biddle (1974) model (i.e., presage, context, process, and product).

**Findings**

Of the six participants, four were male and two were female (Table 1). One male worked in a two-teacher department and the remaining five worked in a single-teacher department. Three AC teachers held academic degrees in agricultural education, leadership, and professional service (non-teaching option), one had a degree in agribusiness, one had a degree in agricultural communications, and one had a degree in animal science.

Table 1
Profile of First Year Secondary Alternatively Certified Agricultural Education Teachers during the 2007-2008 Academic School Year

<table>
<thead>
<tr>
<th>Teacher No.</th>
<th>Sex</th>
<th>Academic Degree</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Female</td>
<td>Agricultural Education, Leadership and Service</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>Agricultural Education, Leadership and Service</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>Animal Science</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Agricultural Education, Leadership and Service</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Agricultural Communications</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Agribusiness</td>
</tr>
</tbody>
</table>

Theme: Context Variables

AC teachers had mixed prior work experiences that they brought to the classroom. As for work experience, four of the six respondents had worked at another job prior to becoming agriculture teachers (#1, 2, 3, 4). One worked for the Oklahoma Water Resources Board (#4), one was an insurance agent (#2), one was a 4-H extension educator (#1), and one split time between managing his family’s show horses and working for his in-laws’ fire protection company (#3). All four of these participants acknowledged that their work experience helped them in the classroom. The former 4-H educator noticed a strong similarity between her former job and being an agriculture teacher. She stated,

I feel like the biggest challenge as an ag teacher is you’re not only teaching in a classroom, four or five different subjects a day, but you’re also doing all your programming. And so, on the 4-H side, I had a year to get my programming down really organized and get a system where I could be effective . . . . And so when I transitioned to Ag Ed, I was already effective at my programming. I just had to get my teaching, my lesson plans and everything, down to where I could do that every day.

Participant #2 also realized the similarities to her former job and teaching, especially as it related to people skills. “It kinda helps you actually be able to relate to the parents. You know, dealing with irate customers kinda is about the same thing as dealing with parents.”

When asked why they decided to become teachers, three of the six participants responded because of their love for youth (#1, 3, 6). Two participants responded that it was fate that drew them to the teaching profession (#1, 5). The participants acknowledged that they recognized there was a shortage of teachers and that an opportunity existed, and as such, felt compelled to “answer the call of duty,” at least until the shortage crisis seized. Participant #5 stated:

I had a school board member call for several months. I was in a tight spot, and I guess I’d always thought about being an ag teacher but never really entertained the thought. But he was persistent in calling for six months asking me to become an ag teacher.

Participant #6 alluded to the fact that he was providing a service to the profession by filling a void. He stated his desire was to teach for 5-10 years until the surplus of agricultural education teachers was “back up and running” and that whenever he believed the surplus of teachers was at an adequate level, then he would be willing to move on.
When asked why they did not major in agricultural education (teaching option), two respondents indicated two primary reasons: 1) they could not afford to student teach; 2) their initial career plans changed. In regard to the cost associated with obtaining a degree in agricultural education (teaching option), participant #1 explained:

I didn’t feel like I’d be able to afford to live for a semester doing my student teaching without being paid. I was married and I couldn’t go 50 miles away . . . , and . . . I really couldn’t afford to go a whole semester without working.

Another participant (#4) indicated he had completed all of his teacher education requirements, minus student teaching, when an industry opportunity came about that made him second guess his desire to teach. He stated that with the job offer, he began to look for ways to graduate early. As such, the student teaching experience was nullified, and he, in turn, graduated with a professional service degree and went to work.

**Theme: Presage and Process Variables**

*AC teachers reported that, to a large degree, they are “hands-on” learners (a presage variable).* These teachers also acknowledged that the majority of their students enjoyed hands-on instruction (a process variable). Yet, AC teachers admitted that most of their instruction is based on teacher-centered methods and activities.

When asked to describe their preferred learning styles, participants listed the following basic responses: three (#3, 5, 6) indicated they were hands-on (tactile/kinesthetic) learners, one (#2) was an auditory learner, one (#1) indicated she likes to “hear it, see it, and then do it”, and one (#4) indicated he learns best from mistakes he made and later corrected. When asked how their students learn best, the participants revealed that students preferred hands-on learning. However, respondents were quick to point out that their preferred teaching style was a basic PowerPoint® lecture. Even though the primary source of content delivery was conducted through lecture, the respondents seemed to understand the need to get their students involved in the learning process. One participant (#6) explained,

No kid really wants to sit here and take notes all day. They don’t come to ag class to sit here and take notes like they do in math. They want to go and play in soil and they want to plant a plant versus just read about it in the book all day.

This respondent went on to say, “Our attention span is not geared for an hour and a half of complete curriculum.” He indicated a good balance is 30 minutes in the classroom learning about a topic and 20 minutes applying the knowledge learned. Another participant (#2) explained that her teaching style consisted primarily of using SmartBoard® and showing students PowerPoint® notes. She went on to say that she needs to adjust her teaching style and delivery of the content to be more effective for her students.

When asked to describe effective teachers, these participants responded that effective teachers do all of the following: control the classroom, motivate students, explain concepts clearly, relate content to students’ lives, find ways to engage students, make learning fun, and care for students. Said one participant (#5), “I think an effective teacher needs to make their students feel important - every student - not just a select few, and sometimes that is hard to do.” Additionally, it was suggested that effective teachers are approachable and attempt to make students feel safe in the learning environment by working with them individually. Participant #2 said, “Sometimes
those kids just need a one-on-one where they don’t feel peer pressured to not ask a question. If it’s just one-on-one, they’ll ask the question [and] then they’ll learn more.”

Theme: Product Variables

AC teachers reported that their mental images of effective teachers are those who cared about them as individuals. Specifically, these “mental models” were teachers who spent extra time explaining subject matter and making themselves available for their students for extra help. Participants were asked to describe effective teachers who had made an impression on them. Some of the participants recalled teachers they had experienced in the past and related why they tried to model and emulate these individuals. One participant (#2) responded that her math teacher was an example of an effective teacher because she was willing to work with and assist students, individually, after hours if need be, and she was able to show students how to work a problem in multiple ways. Another participant (#5) stated his junior college livestock judging coach was effective because he “let us judge, critique how we did it, and explain the mistakes we made.”

When asked if they perceived themselves as effective during their first year in the teaching profession, all the participants responded in the affirmative. Participants had various reasons for why they believed they were effective. One participant (#1) related that she had been effective because her enrollment had grown from 67 students, when she first arrived on the job, to 101 students who were pre-enrolled in her program for the following year. She further stated the reason for this growth was due in large part to her desire to increase her programs’ visibility. Another participant (#3) explained he had been effective because he had convinced a few more kids to go to college and continue their education. Yet another participant (#5) iterated that being an effective teacher extended beyond one’s own subject matter and classroom and that an effective teacher reaches out across various disciplines to ensure what is best for students. As such, he believed he was an effective teacher because of his ability to detect the overall worth and value of the entire school system and work with other teachers to assist students in the overall learning process. He stated,

One thing I stress is the importance of being the best or doing their best. And if I ever have a student that comes through on that ineligible list, I take that student to that teacher in the class they are ineligible in and I ask, “What do we need to do?” So, that shows the student that I care, that shows the teacher that I care. It also shows the student they need to be on the ball, and they respect me and that other teacher when they start to do that.

While AC teachers recognized their areas of strength, they also were quick to point out concerns they encountered. One participant (#6) elaborated that he is his own worst critic, but that he had the luxury of working with a veteran teaching partner who provided mentorship whenever needed. He stated, “I would go in [to his veteran teaching partner] and say ‘I just don’t think I was a very good teacher today.’ And he’d say, ‘Well congratulations. You’re normal.’ You know, not every day can be perfect.”

Two participants (#1, 2) stated they wished the pace of the school year would have been slower. The fast-paced nature of the school year, especially as it relates to teaching secondary agricultural education (i.e., FFA events, supervising student projects), prevents some teachers from being able to plan as appropriately as they would like for classroom and laboratory
instruction. One participant (#2) stated she wished she would have been more prepared to teach her classes.

If I could change something, I would have been more prepared in my teaching. I would have had better lesson plans. But, I started three days before school started, so it’s hard to prepare for that when you’re not prepared in the beginning.

Two participants alluded to the fact that there is no substitution for experience. One participant (#6) described his first year of teaching to “walking in the dark without a flashlight” and that “sometimes you just have to get through and take good notes and realize for next year, I’m going to be ready for this.” Another participant (#2) noted having experienced the first semester made her better at managing her time during the second semester. She stated, “I already feel like from first semester to second semester I was a better time manager.”

Another participant (#1) recognized the need to document her experiences throughout the year for further planning. Fortunately, for her, she maintained good notes of what worked as it pertained to classroom and laboratory instruction and what was most effective throughout the year in terms of planning and organizing the entire agricultural education program. As such, she now has a “template” for which topic areas she should teach, and how best to teach them. She acknowledged she has worked hard to maintain notes throughout the year so she can be better prepared for the following year.

While participants believed they were effective, the researcher’s field notes consisted of mixed results. Numerous times throughout the observations, the researcher detected students who were neither interested nor engaged in the learning environment. For instance, little variability existed as it related to using multimedia and visual aids. PowerPoint® presentations were the most frequently used multimedia source. It was observed that three of the six participants (#3, 5, 6) used PowerPoint®, while the remaining three participants employed the lecture method of instruction and either wrote the content on the chalk board (#1) or overhead transparency film sheet (#4), or read the content to the students out of a textbook (#2).

Discussion

Using context variables from the Dunkin and Biddle (1974) model as a theme, it was revealed that the reasons these first-year Oklahoma AC agriculture teachers entered the profession was twofold: 1) their desire to work with youth; and 2) the “opportunity” presented by the shortage of teachers across the country. The reasons these teachers decided against majoring in agricultural education/teacher preparation were mainly due to the costs associated with student teaching and the fact that they never initially wanted to teach, and/or their initial career plans changed once they entered the workforce. These findings align with studies conducted by Rocca and Washburn (2006) and Shen (1997), which found teaching is typically a second career choice for AC teachers. Further, Joerger and Boettcher (2000) stated “... teaching may be one of the most difficult of all professions to master” (p. 587). This statement was validated by the quote from participant #6 who stated teaching “can be like walking in the dark without a flashlight.”

As for their former work experience, four of the six AC teachers interviewed in this study have a variety of previous work experience they bring to the classroom, which supports the findings
from a study by Ruhland and Bremer (2002). These teachers indicated their experience has been valuable to them as teachers. Their experiences have enabled them to work better with parents, gain expertise in a particular field of study as it relates to the agricultural education curriculum, and understand the importance of organization and programming. However, their experiences do not necessarily equate to effective classroom teaching related to the findings from Rosehnhshine and Furst (1971). These teachers admitted to needing additional information on how to vary their teaching methods to be more student-centered.

To address process variables (Dunkin & Biddle), AC teachers were asked to qualify their thoughts on how their students learn best. These teachers perceive their students learn best through experiential education and hands-on instruction. However, when probed about their own teaching style, a presage variable, AC teachers responded they enjoy lecturing and using PowerPoint® presentations to teach students in their classrooms. As such, there appears to be a disconnect in how AC teachers believe students learn best and how they teach.

When asked to describe the product variable, effective teaching, some of the AC teachers reflected directly on a former teacher they experienced as a student in the past, which resulted in how they came to know and perceive quality teaching (Hofer & Pintrich, 1997; Korthagen & Kessels, 1999). Responses can be couched into three areas: controlling the physical environment of the classroom, presenting information clearly, and building relationships with students. Specifically, AC teachers stated that effective teachers should be individuals who are able to control, motivate, relate, engage, and care for students in the classroom. Additionally, AC teachers noted effective teachers should make learning fun and explain concepts clearly. These areas support the need for pedagogical and instructional skill acquisition according to studies by Lynch (1996) and Roberts and Dyer (2004). While these are admirable traits, it was not believed that these teachers were connecting with all the qualities they deem effective, especially as it relates to student engagement and motivation. In fact, the researcher observed many of these participants’ students to be neither engaged nor motivated in the topics being discussed. Although all AC teachers believed they were effective teachers, none of their epistemological rational involved student performance or achievement.

AC teachers recognized areas in which they need improvement. Respondents indicated the year went by too quickly, and as such, they needed to be prepared better for the fast paced atmosphere associated with teaching secondary agricultural education. Further, it was revealed there was a need for understanding and applying procedures related to classroom management issues. These AC teachers wished they had been better at managing their time and planning and organizing their daily activities, especially as it related to the functions associated with classroom and laboratory instruction. This finding supports Davis et al. (2006) who found AC teachers are concerned with being able to manage their classroom, time, and discipline/behavior issues.
Implications

Although teaching may be a second career choice for some AC teachers (Rocca & Washburn, 2006), could it be that administrators are recruiting teachers who have pursued alternative routes over those who have achieved traditional certification? It seems plausible to think that depending on geographic location, AC teachers may be at an advantage in the hiring process. For instance, one teacher expressed that a school board member called him for six months before he finally relented to becoming the agriculture teacher at the school where he graduated. As such, administrators and school board members across the state may be somewhat leery of hiring teachers outside their school district for fear they will leave after a short while for a position closer to home. This could be especially true in rural areas of Oklahoma, where the populations continue to dwindle. Additionally, AC teachers who are employed in their hometown or neighboring town tend to understand the area already and have a vested interest in the community. Thus, they may be more apt to remain in those areas for longer periods of time as compared to others who are not from the area.

Recommendations for Practice

Professional development and credit courses should be offered in an attempt to provide AC teachers with appropriate pedagogical and methodological skills required to assist students’ needs regarding hands-on classroom and laboratory instruction. Further, professional development workshops should be organized as a means to further assist first year AC teachers with the areas they perceive to need improvement. Specifically, workshops should focus on time management strategies and planning procedures as it relates to the entire agricultural education program. Further, intensive, sustained, and prolonged professional development workshops should focus on various areas related directly to classroom and laboratory instruction (i.e., planning lessons and units of study; locating, securing, and sequencing curriculum and resources; managing the classroom; and handling misbehavior of unruly students).

Additionally, efforts should be made to increase scholarship funds for student teacher experiences in an effort to retain preservice students in the pipeline. Lastly, future studies should assess teacher reflection practices, through journaling, to better understand the trials and tribulations AC teachers experience day-to-day in “real time.” This would allow interventions for support, feedback, and assistance in an effort to empower the AC teacher to be more effective and credible.

Recommendations for Future Research

Perhaps 60 hours of observation is insufficient to make large conclusions on teaching effectiveness. Because the RT program is comprised of three committee members who make observations throughout the year, it is recommended that further studies consider the principals’ and mentors’ assessments of AC teachers. Specifically, these two individuals interact with the AC teacher on a daily basis. Therefore, their direct and indirect observations of the AC teacher should be taken into account.
Further, does a teacher’s route to certification really matter (Good et al., 2006)? It is important to know which criteria principals use when hiring agricultural education teachers. Future studies should assess the factors affecting the employability of teacher candidates.

In this study, context variables (Duncan & Biddle, 1974) were self-reported by the RT based on their perceived ability to impact student achievement positively. Further research should be conducted to determine the effect AC teachers have on students’ standardized test scores and agricultural competency knowledge as compared to traditionally certified RTs.

Although this study emphasized teaching only, Roberts and Dyer (2004) opined that being an effective agriculture teacher is more than just teaching in a classroom. As such, other “duties” of an agricultural education instructor should be explored. To that end, what are the mental images and epistemologies of first-year Oklahoma AC agriculture teachers as it relates to FFA and SAE? Do the variables associated with the Dunkin and Biddle (1974) model affect how teachers advise students in the FFA or supervise SAEs? Additional research should assess this question as a means for understanding the perceived trials and tribulations first-year AC teachers experience as it relates to their responsibilities as an FFA advisor and supervisor of student projects. Further, while this study focused on the qualitative responses of AC teachers concerning effective teaching, broadly speaking, what are the levels of efficacy of AC teachers as it relates to the courses they teach? Do AC teachers have an understanding of all courses they are expected to teach? What are their areas of strength and weakness? What is their overall level of teacher self-efficacy as it relates to classroom and laboratory instruction? Lastly, this group of AC teachers should be followed and interviewed again at the end of their second year to determine if another year’s worth of experience aided them in becoming more effective at performing their jobs as teachers and to understand if their mental models and epistemologies of classroom and laboratory instruction changed over time.
References


