

School-Based Agricultural Education Teachers' Interest in and Confidence for Preparing Students to Compete in Career Development Events

Caitlin Dreher
Beggs High School

Dr. J. Shane Robinson
Oklahoma State University

Abstract

School-based agricultural education (SBAE) teachers have an obligation to teach students about agriculture and prepare them for agricultural careers. Yet, considering the vast number of sectors within the agricultural industry, this task can be daunting. One way teachers can accomplish this mission is through preparing their students to participate in Career Development Events (CDEs). This study assessed SBAE teachers' level of self-efficacy for each of the 33 CDEs recognized and offered at the Oklahoma State FFA Interscholastic Event. The SBAE teachers surveyed in the study expressed a greater interest in preparing their students in 32 of the 33 CDEs than they did their confidence to prepare them. Such perceptions may lead to a reluctance to prepare students for CDEs, especially in areas where teachers feel less efficacious, which could cause students to have less awareness of, appreciation for, and preparation in various agricultural careers. The findings of the study have implications for the professional development needs of inservice SBAE teachers. Such professional development should be provided to develop SBAE teachers' perceived inadequacies by targeting the CDEs with the greatest mean difference scores. Specific focus should be placed on food science and technology, veterinary science, and meat evaluation and technology CDEs. SBAE teachers should be provided opportunities to develop mastery in these areas by pairing teachers with expert mentors across the state to allow for vicarious experiences to evolve and complement their perceived shortcomings. Additional research should ensue to determine the impact CDEs have on students' future career choices and employability.

Keywords: Careers, CDEs, Employability, SBAE teachers, Self-efficacy

Introduction

"Agriculture is the nation's largest employer with more than 24 million people working in some phase of the agricultural industry" (Lundry et al., 2015, p. 43). Yet, people know less about agriculture with each passing generation (Blackburn, 1999; Kovar & Ball, 2013). Fortunately, School-Based Agricultural Education (SBAE) allows students to not only learn about agriculture but also prepare for them for an agriculturally related career (Roberts & Ball, 2009). SBAE teachers have a big role to play, as they have been recognized as one of the most influential

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sources of motivation for secondary students regarding their interest in entering a career in the agricultural industry (Park & Rudd, 2005; Wildman & Torres, 2001). Yet, the various sectors of the agricultural industry can be overwhelming, even for trained teachers, as there are seven different career pathways (i.e., agribusiness systems, animal systems, environmental service systems, food products & processing systems, natural resources systems, plant systems, and power, structural & technical systems) in which SBAE teachers are expected to be proficient and instruct their students (The Council, AFNR Standards, 2015). SBAE teachers are expected to teach agriculture as a content and a context and prepare their students for higher education and career opportunities simultaneously (Roberts & Ball, 2009). Therefore, SBAE teachers often rely on Career Development Events (CDEs) to help prepare their students for the vast array of careers in agriculture and provide an authentic training ground for doing so (Lundry et al., 2015).

CDEs are academic, skill-based contests (Bowling et al., 2020) that are designed to prepare students for the workforce by exposing them to specific skills and content across the various sectors of the agricultural industry (Goodwin & McKim, 2020; Lundry et al. 2015). CDEs offer students the ability to compete as individuals or on teams (Bowling et al., 2020). CDEs provide a platform for SBAE teachers to incorporate technical and employability skill development of their students in a competition-rich forum (Goodwin & McKim, 2020). This plays into the SBAE program's strength because, generally, SBAE teachers are known to be highly competitive and achievement oriented (Goodwin & McKim, 2020). Therefore, performance in CDEs is often viewed as an indicator of SBAE student success (Smith & Thapa, 2016). Yet, the pressure of being successful in CDEs can become a major source of concern and cause for stress among SBAE teachers (Bowling & Ball, 2020).

Although students should have the opportunity to participate in as many CDEs as possible (Smith & Thapa, 2016), they often participate in CDEs for two specific reasons: 1) they align with their career preferences (Croom et al., 2009), and 2) their SBAE teachers have a high level of self-efficacy in those areas (Goodwin & McKim, 2020). As such, SBAE teachers can dictate the level to which their students are exposed to CDEs, especially if they are competent in specific areas related to CDEs (Terry & Briers, 2010). Not only are SBAE teachers expected to possess certain skills, education, and abilities related to preparing students for CDEs, they also must be able to teach and motivate their students to learn about CDEs by infusing targeted instructional strategies and developing relationships and rapport with them (Bowling & Ball, 2020).

Those who possess more competitive personalities and appetites for achievement tend to engage in greater amounts of CDE preparation and thus train more teams than do those who do not (Goodwin & McKim, 2020; Russel et al., 2009). Therefore, it is important to assess SBAE teachers' perceptions of their interest and ability to teach CDEs to students, especially since experiential learning activities such as these are often tied to a SBAE teacher's level of effectiveness (Roberts & Dyer, 2004). It should be noted that numerous states offer leadership development events (LDEs) in addition to CDEs. In Oklahoma, no such distinction is made. Therefore, this study included only the 33 CDEs to represent any individual or team event recognized at the Oklahoma State FFA Interscholastic Event.

Theoretical Framework

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This study was undergirded with Bandura's (1997) self-efficacy theory. Self-efficacy is a person's perception of his or her ability to perform a particular task (Bandura, 1997). Self-efficacy can ebb and flow depending on a person's perceived or actual ability to perform the task (Wilson et al., 2020). The change in efficacy depends on the person's behavior, dedication, and effort necessary for mastering the task by observing a person who can model it effectively (Bandura, 1997) and then replicating the task until mastery is achieved (Walumbwa et al., 2011).

There are four sources that influence a person's level of self-efficacy. The four include: 1) Mastery experiences, 2) Vicarious experiences, 3) Social persuasion, and 4) Physiological and emotional states (Bandura, 1986). Regarding self-efficacy beliefs, mastery experiences are the most influential of all the sources of influence (Bandura, 1986). A person's self-efficacy is largely based on multiple iterations of mastery (Bandura, 1997). Frequently, the perceived difficulty of the task can impact the level of mastery assumed (Bandura, 1997). Difficult tasks can produce stronger levels of self-efficacy if a person is intentional and tenacious about accomplishing it (Bandura, 1997). This is important because the mindset necessary for completing tasks can become a fixed asset for experienced teachers over time (Ross, 1994). Therefore, self-efficacy, and resiliency to master difficult tasks, can be established early and sustained throughout a teacher's career (Ross, 1994).

Vicarious experiences are established when an individual observes another person perform a given task (Bandura, 1997). "Seeing or visualizing people similar to oneself perform successfully typically raises efficacy beliefs in observers that they themselves possess the capabilities to master comparable activities" (Bandura, 1997, p. 87). This is especially true in the field of education where teachers model certain behaviors for others (Tschannen-Moran et al., 1998). Such modeling allows the aspiring teacher to determine the extent to which the task can be replicated under similar circumstances (Tschannen-Moran et al., 1998).

Social persuasion occurs when individuals are influenced by others who they deem as competent models (Bandura, 1986). "If people are persuaded that they have what it takes to succeed, they exert more effort than if they harbor self-doubts and dwell on personal deficiencies when problems arise" (Bandura, 2004, p. 622). Praise for a person's work can have lasting effects on their level of self-efficacy so long as that praise is well intentioned and well deserved. Praise that is positive, genuine, and well-timed can strengthen a person's self-efficacy, whereas praise that is unwarranted can weaken it (Bandura, 1986).

Finally, physiological and emotional states also affect a person's self-efficacy. Specifically, individuals are more self-efficacious when they feel relaxed and confident in what they are doing (Bandura, 1997). This comes about through multiple iterations of performing the task. Some people experience physiological effects such as elevated heart rates and anxiety in pressure-packed situations while others can remain calm and collected in such moments (Tschannen-Moran et al., 1998). As such, these types of situations can impact a person's belief in their ability to perform a given task either positively or negatively.

Bandura (1986) determined that environmental and personal factors help inform a person of his or her willingness to participate in an activity. For our study, we assumed environmental factors

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included the pervasive culture of the local communities in which these teachers taught. In addition, we assumed teachers' age, certification route, years of experience, and personal motivation were the personal factors related to their interest and confidence to prepare their students for the full list of CDEs offered at the Oklahoma State FFA Interscholastic Event.

Purpose of the Study

The purpose of the study was to determine SBAE teachers' interest and confidence related to preparing their students for CDEs. Three objectives guided the study:

1. Determine SBAE teachers' interest in preparing their students to participate in CDEs;
2. Determine SBAE teachers' confidence in preparing their students to participate in CDEs; and
3. Determine SBAE teachers' greatest need for professional development regarding CDE preparation.

Methods

According to the Ferguson College of Agriculture website, there are 33 recognized CDEs in Oklahoma. Therefore, we used Qualtrics to conduct a survey research study using modes of central tendency (i.e., means and standard deviations) and variability (i.e., frequencies and percentages) to determine teachers' interest and confidence to prepare their students across all 33 CDEs. All SBAE teachers in Oklahoma ($N = 463$) were included in the study's frame, which was obtained through the database included on the Oklahoma State Career Tech Department's website. This group was purposefully included in the study because of our interest in our state's SBAE preparation, retention in the profession, and personal and professional growth as a lifelong educator. Because this is a state-specific study, the reader is cautioned on generalizing the findings.

To determine the instrument's validity, we used a panel of experts. A panel of experts is a common means used in social science research to determine face and content validity of survey research tools (Johnson & Shoulders, 2019). However, Johnson and Shoulders (2019) stressed that researchers should clarify their decisions for using a panel of experts to assess their instrument's validity by answering the following questions:

- 1) How many 'experts' were on the panel, and how were they selected, and what was the nature of their expertise?
- 2) What specific instructions were given to the experts and what specific criteria did they judge in order to assess validity?
- 3) What specific type(s) of validity was (were) assessed?
- 4) Was the panel informed about the characteristics of the research subjects, the conditions of instrument administration, and the specific use to be made of the data generated? (p. 294)

Therefore, to refrain from using panel of experts as a *catch phrase* (Johnson & Shoulders, 2019), we offer the following statements about them. Our panel consisted of three professors in agricultural education and two master's students in agricultural education. The panel assessed the Qualtrics survey tool for face and content validity prior to it being submitted to teachers by

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assessing the overall look and appeal of the instrument and cross walking the items included with the objectives of the study. The panel had a combined 22 years of secondary and 50 years of postsecondary teaching experience in agricultural education. Further, each of the experts currently conducts social science survey research in agricultural education and has led and conducted numerous studies on the topic. Therefore, the panel of experts used in this study were deemed to be knowledgeable about both the content – SBAE – and the process of conducting survey research. After assessing the study's purpose and objectives, along with the instrument and its items, the panel of experts recommended slight modifications to the items included in the instrument which we accepted prior to submitting it to participants.

SBAE teachers were provided a comprehensive list of the 33 CDEs offered in Oklahoma. They were instructed to consider each of the CDEs independently and score it twice, once regarding their interest in preparing students in that particular area and again regarding their confidence to prepare students in that particular area. In total, 159 teachers (34%) provided complete and usable data sets. According to Krejcie & Morgan, 1970, one way to handle non-response error is to compare early and late respondents (Lindner et al., 2001). Borrowing from Robinson et al. (2007), we compared the first 25% to the last 25% of respondents. Although no discernable differences were detected in those who chose to respond early versus those who responded late, we caution readers on generalizing the findings beyond the sample that provided data for the study.

Prior to embarking on our study, we received approval on March 24, 2022 from the Oklahoma State University Institutional Review Board (IRB) to disseminate our instrument. Using Qualtrics, we followed Dillman's (2000) Tailored Design Method for collecting internet-based data based on making multiple contacts with teachers. Four separate emails were sent to our state's SBAE teacher list serv from March 28, 2022 until April 15, 2022 with a link to the survey tool being made available each time. Once the data collection period ended, data were compiled and analyzed. Descriptive statistics were used to respond to objectives 1, 2, and 3. In their study on comparing pre-service teachers in agricultural education on their perception of the importance placed on various tasks related to teaching technical welding skills, Leiby et al. (2013) subtracted the mean scores of teachers at the end of the semester from those at the beginning of the semester to determine a mean difference between these polar endpoints. We elected to use this same strategy to conduct mean differences in our study by subtracting the mean interest scores from the mean confidence scores for each of the CDEs. We then ranked those ratings in descending order according to that mean difference score to prioritize the greatest needs for professional development.

Findings

Regarding the personal and professional characteristics of SBAE teachers in Oklahoma, 70% ($n = 112$) of the respondents were male. The age range of SBAE teachers in Oklahoma was between 22 ($n = 4$) to 68 ($n = 1$) years of age. A rather equal distribution of ages was realized by the respondents. The age range with the largest respondents was 30 to 34 ($n = 23$, 18%) followed by 25 to 29 ($f = 18$, 14%) and 20 to 24 ($f = 17$, 13%), respectively. The ethnicity with the largest number of respondents was White ($f = 132$, 75%) followed by American Indian ($f = 31$, 18%). The most frequent hometown population of respondents was rural ($f = 107$, 67%) followed by

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micropolitan ($f = 29$, 18%). Regarding certification route, 85% ($f = 135$) of respondents were traditionally certified, and 21 (13%) were alternatively certified (see Table 1).

Table 1

Personal and Professional Characteristics of SBAE Teachers in Oklahoma (n = 159)

Variable	<i>f</i>	%
Gender		
Male	112	70.44
Female	47	29.56
Age ¹		
20 to 24	17	13.39
25 to 29	18	14.17
30 to 34	23	18.11
35 to 39	12	9.45
40 to 44	13	10.24
45 to 49	16	12.59
50 to 54	11	8.66
55 to 59	8	6.30
60 +	9	7.09
Ethnicity ²		
African American	2	1.13
American Indian	31	17.51
Asian American	3	1.69
Hispanic	3	1.69
White	132	74.58
Other	3	1.69
Prefer not to answer	3	1.69
Hometown Population		
Rural (2,500 people or less)	107	67.29
Micropolitan (2,501 to 10,000 people)	29	18.24
Non-metropolitan (10,001 to 50,000 people)	20	12.58
Metropolitan (More than 50,000 people)	3	1.89
Teacher Certification Route		
Traditional Certification	135	84.91
Alternative Certification	21	13.21
Emergence Certification	3	1.89

Note. ¹data cells do not add up to 159, as not all SBAE teachers provided their age; ²data cells equate to 177 due to teachers being asked to check all that apply

Table 2 was prepared to address the objectives of the study. Objective one sought to determine SBAE teachers' interest in preparing their students to participate in CDEs. The stem used was: *How interested are you in preparing students to participate in the following CDEs?* SBAE teachers responded to each of the 33 CDEs using a 4-point, Likert-type scale ranging from 1 = No Interest to 4 = Major Interest. Findings indicated that SBAE teachers were most interested in preparing their students for public speaking ($M = 3.55$, $SD = .74$), livestock evaluation ($M = 3.13$, $SD = 1.04$), and freshmen agriscience quiz bowl ($M = 3.12$, $SD = .93$). In contrast, SBAE

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teachers had the least amount of interest in preparing their students for poultry evaluation ($M = 1.95$, $SD = .93$), turfgrass management ($M = 2.01$, $SD = .90$), and dairy cattle evaluation and management ($M = 2.03$, $SD = .97$). In all, teachers expressed between minor to moderate interest in preparing their students across all 33 CDEs (see Table 2).

Objective two sought to determine SBAE teachers' confidence in preparing their students to participate in CDEs. The stem used was: *How confident are you in your ability to prepare students to participate in the following CDEs?* SBAE teachers responded to each of the 33 CDEs using a 4-point, Likert-type scale ranging from 1 = No Confidence to 4 = Major Confidence. Findings indicated that SBAE teachers had the greatest amount of confidence in preparing students for public speaking ($M = 3.10$, $SD = .80$), livestock evaluation ($M = 3.03$, $SD = .95$, and animal science quiz bowl ($M = 2.81$, $SD = .90$). SBAE teachers had the least amount of confidence in preparing their students for turfgrass management ($M = 1.59$, $SD = .72$), poultry evaluation ($M = 1.73$, $SD = .88$), and soil and water conservation ($M = 1.73$, $SD = .86$). In all, teachers expressed between minor to moderate confidence in preparing their students across all 33 CDEs (see Table 2).

Objective three sought to determine SBAE teachers' greatest need for professional development regarding CDE preparation based on mean difference scores between interest and confidence (see Table 2). The greatest mean difference scores (MD) were found to be in the CDE areas of food science and technology ($MD = .52$), veterinary science ($MD = .51$), and meat evaluation and technology ($MD = .50$). In contrast, the CDEs experiencing the least amount of difference in mean scores were dairy cattle evaluation and management ($MD = .00$), agricultural education ($MD = .09$), and livestock evaluation ($MD = .10$), as indicated in Table 2.

Table 2

SBAE Teachers' Interest and Confidence in Preparing Students to Participate in CDEs (n = 159)

Career Development Event	Interest		Confidence		Mean Difference
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Agricultural Communication	2.50	.90	2.25	.86	.25
Agricultural Education	2.71	.93	2.62	.96	.09
Agricultural Issues Forum	2.21	.99	1.86	.80	.35
Agricultural Technology and Mechanical Systems	2.68	1.04	2.37	.98	.31
Agricultural Sales	2.24	.84	1.99	.84	.25
Agriscience Fair	2.41	1.02	1.99	.91	.42
Agronomy	2.22	.99	1.88	.87	.34
Animal Science Quiz Bowl	3.06	.88	2.81	.90	.25
Conduct of Chapter Meetings	2.60	1.03	2.19	1.03	.41
Dairy Cattle Evaluation and Management	2.03	.97	2.03	.99	.00
Electricity	2.35	.98	2.00	.89	.35
Employment Skills	2.67	.95	2.33	.98	.34
Entomology	2.08	.96	1.90	.94	.18

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Environmental and Natural Resources	2.22	.95	1.97	.90	.25
Farm and Agribusiness Management	2.37	.98	2.00	.83	.37
Floriculture	2.42	1.10	2.12	1.03	.30
Food Science and Technology	2.61	.96	2.09	.89	.52
Freshmen Agriscience Quiz Bowl	3.12	.93	2.89	.93	.23
Homesite Judging	2.08	1.03	1.84	.88	.24
Horse Evaluation	2.04	.98	1.92	.94	.12
Land Judging	2.49	1.14	2.28	1.08	.21
Livestock Evaluation	3.13	1.04	3.03	.95	.10
Marketing Plan	2.04	.89	1.78	.80	.26
Meat Evaluation and Technology	2.73	.97	2.23	.93	.50
Milk Quality and Products	2.49	.99	2.04	.91	.45
Nursery/Landscape	2.20	.97	1.84	.91	.36
Parliamentary Procedure (Senior)	2.30	1.12	1.94	.96	.36
Poultry Evaluation	1.95	.93	1.73	.88	.22
Public Speaking	3.55	.74	3.10	.80	.45
Rangeland Judging	2.06	1.02	1.75	.85	.31
Soil and Water Conservation	2.15	1.01	1.73	.86	.42
Turfgrass Management	2.01	.90	1.59	.72	.42
Veterinary Science	2.78	.97	2.27	.95	.51

Note. 1 = No Interest/No Confidence, 2 = Minor Interest/Minor Confidence, 3 = Moderate Interest/Moderate Confidence, 4 = Major Interest/Major Confidence

Conclusions

SBAE teachers in Oklahoma are largely White males who teach in rural areas and are traditionally certified (i.e., have a teaching credential and experienced the student teaching internship). The years of experience in the profession is relatively even across all year ranges. Specifically, 58 (37%) teachers are between the ages of 20 and 34, and 69 (43%) are 35 and older. This healthy mix of ages lends itself to developing rich community of practice approaches and providing mentoring pipelines across the profession. As such, it is recommended that SBAE teachers be encouraged to share resources, experiences, insights, and wisdom more frequently across generations regarding CDEs. Perhaps specific chapter officer training sessions, statewide teacher conferences, and leadership development events in which Oklahoma's teachers are expected to attend could be framed differently to allow teachers to promote such sharing and capacity building, which is an important vicarious experience (Bandura, 1986). SBAE teachers should be encouraged to seek out mentors who demonstrate and model the specific tasks they aspire to learn about and perform.

In 32 of the 33 recognized CDEs in Oklahoma, SBAE teachers expressed a greater interest in preparing their students to participate than they did their confidence to prepare them. This conclusion implies that teachers had an overall lower sense of self-efficacy to teach and prepare their students for participating in CDEs. The lone exception was Dairy Cattle Evaluation and Management, which received the exact same mean score ($M = 2.03$) regarding interest ($SD = .97$) and confidence ($SD = .99$). This conclusion is consistent with other needs assessment

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research that has found participants tend to rate the importance of a set of items higher than their perceived ability to perform them (Radhakrishna & Bruening, 1994; Robinson et al., 2007). This conclusion indicates that teachers have not yet mastered the experience (Bandura, 1986) of preparing students for CDEs.

Recommendations

It is recommended that the results of this study be shared with SBAE teachers, university faculty, and the state staff of the Career Tech Department in Oklahoma so that appropriate professional development may be offered. Specifically, professional development should be offered to these SBAE teachers based on their greatest need, as indicated by those CDEs with the largest mean differences between interest and confidence. Specific preparation should be provided to SBAE teachers in the areas of food science and technology, veterinary science, and meat evaluation and technology. Because CDEs should be emphasized in and connected to classroom instruction (Goodwin & McKim, 2020), in-service also should include curricular development in these areas. Perhaps SBAE teachers in this state simply do not have adequate instructional materials and resources in these areas to feel efficacious enough to teach them. If so, additional curricular development should ensue.

In addition, perhaps these teachers feel inadequate in these areas due to a lack of contextual experiences. Therefore, it is recommended that professional development be considered to include opportunities for teachers to be exposed to specific, concrete experiences where teachers receive the opportunity to practice a skill or learn a concept, reflect, draw conclusions, and reattempt the learning until mastery is established (Bandura, 1986) and they become competent in the content area. Allowing teachers to work in pairs or communities could enable rich, vicarious experiences in which teachers are allowed to observe the behavior of and learn from a competent model (Bandura, 1986; Tschannen-Moran et al., 1998).

Although this study focused on inservice teachers in Oklahoma, it is recommended that the study be replicated across other states to determine the preparation needs of other SBAE teachers regarding CDEs. Further, this study should be repeated with preservice teachers at Oklahoma State University to help guide the decision-making process related to academic advising. Specifically, students should be encouraged to register for courses aligning with the content areas for which they received lower mean difference scores. Implications also exist for making placement decisions related to the student teaching internship. Pairing student interns with competent inservice teachers who can model the CDEs for which they deem themselves to be deficient could support the vicarious experiences necessary for improving their self-efficacy in these areas (Bandura, 1977, 1986; Tschannen-Moran et al., 1998). Because the majority of preservice teachers at Oklahoma State University emerge from Oklahoma SBAE programs taught by the teachers featured in this study, it is likely they share similar perceptions as found here. As such, the findings of this study should be integrated into the teacher preparation program at Oklahoma State University. Specifically, students in this program who aspire to become teachers should be made aware of these findings and provided with opportunities to take coursework in and develop lessons and training materials related to food science, veterinary science, and meat evaluation and technology. Doing so might allow for providing multiple attempts at developing mastery of these subject areas (Bandura, 1997; Walumbwa et al., 2011).

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Comparing the needs of SBAE teachers in Oklahoma according to various personal and professional characteristics was not the intended purpose of this study. Therefore, it is recommended that research seek to identify specific needs of various SBAE teacher groups. For instance, are there different CDE needs for novice versus expert teachers in the study? The same question could be asked of those who are traditionally certified versus those who are alternatively certified. Also, how do those who teach in rural areas compare to those who teach in non-rural communities? Are their needs for preparing students for potential careers different based on living in smaller towns and having a more cosmopolitan makeup? Additional research should be conducted to answer these questions. Regarding the findings of this study, teachers in this state do not need additional training on livestock evaluation, agricultural education, and dairy cattle evaluation and management CDEs, as the mean differences scores were low to negligible for those areas.

It is imperative that professional development be provided to develop SBAE teachers' perceived inadequacies by targeting the CDEs with the greatest mean difference scores. Specifically, professional development should focus on food science and technology, veterinary science, and meat evaluation and technology CDEs. SBAE teachers should be provided multiple, scaffolded opportunities to develop mastery of the CDEs for which they are most deficient. Such mastery could include pairing teachers with expert mentors to serve as models and provide vicarious experiences to complement their perceived shortcomings.

Future research should assess the students these teachers train each year in the various CDEs. Doing so would allow comparisons to be made between teachers' self-perceived efficacy and their actual competency for preparing students for CDEs and specific agricultural careers (Lundry et al., 2015). Finally, additional research should be conducted to determine the impact CDEs have on students' future career choices and employability. Triangulating the data with industry perceptions of former SBAE students who competed in CDEs could help improve and hasten the career development pipeline process to better ensure successful employability and skill transfer in the workplace.

Discussion

It is recognized that SBAE teachers have the capacity to motivate and influence students in and across the SBAE program (Park & Rudd, 2005; Wildman & Torres, 2001). Therefore, it also is possible that teachers have the power to dictate a person's potential career choice based on the content and experience students are exposed to in the program. If teachers simply refrain from introducing certain CDEs to students due to their low self-efficacy in those areas, it is even more imperative to share the findings of this study with teachers. In failing to prepare students for certain CDEs due to their lack of knowledge, interests, or experiences, SBAE teachers may be missing out on rich opportunities to introduce and expose students to potential, viable career fields that they did not know existed (Lundry et al., 2015).

The extent to which CDEs prepare students for the agricultural workforce is still largely unknown. Although CDEs are meant to develop students for potential careers, do they actually accomplish this mission? Are students more likely to enter a career due to their participation in

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CDEs? Why or why not? What specific technical and employability (i.e., social) skills do students learn through participating in CDEs that leads to their employability? Numerous hours and resources are devoted each year to preparing students for CDEs, which can cause elevated levels of stress for SBAE teachers (Bowling & Ball, 2020). Is the payoff worth the cost? What impact does this training have on students' immediate, short-term, and long-term career plans and successes? Additional questions such as these remain.

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AUTHORS' NOTES

Caitlin Dreher, Agricultural Education Teacher, Beggs High School, Beggs, Oklahoma. The author can be contacted at: cdreher@beggs.k12.ok.us

Dr. J. Shane Robinson, Professor, Agricultural Education, Oklahoma State University, Stillwater, Oklahoma. The author can be contacted at: shane.robinson@okstate.edu