

# Benefits of Career Development Events as Perceived by School-Based, Agricultural Education Teachers

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## Abstract

*Agriculture is the nation's largest employer with more than 24 million people working in some phase of the agricultural industry; however, the knowledge and skills needed in today's agricultural industry are lacking. Assuring future generations are agriculturally literate and taught the significance of agriculture is crucial. Systematic delivery of the secondary agricultural education program has the potential to highlight mathematics and science through classroom and laboratory instruction, provide hands-on work experiences, and develop life skills that will help students discover their career paths. Through Career Development Events (CDEs), agricultural education programs have the potential to prepare students for more than 300 careers in the science, business, and technology of agriculture. However, school-based, agricultural education teachers and students may not understand fully the technical and non-technical skills learned through CDEs. A Delphi approach was used in this study to identify benefits of CDEs, as perceived by school-based, agricultural education teachers in Oklahoma. Findings revealed teachers perceived CDEs supported the mission of career and technical education through students' attainment of valuable career and life skills that are beneficial for employment in the agricultural industry; less agreement, however, existed about CDEs leading students to make career choices.*

Keywords: career development events, agricultural education, agricultural industry

Agriculture is the nation's largest employer with more than 24 million people working in some phase of the agricultural industry (Bureau of Labor Statistics, 2012). According to Federico (2005), agriculture is a technical industry on which the whole world is dependent. For thousands of years, it has provided people with food, clothing, heating, and shelter, and even has employed most of the population (Federico, 2005). Agriculture is an enduring discipline and field of work that will remain relevant for future generations well beyond our current perception of time and history (Ramsey, 2009). Agriculture, however, is a success story that has been neglected by the general public (Federico, 2005).

Although various opportunities for employment in agriculture exist, Americans, generally, have no idea of the vast number of careers related to the agricultural industry (National Research Council [NRC] Board on Agriculture, 1988). Less than 2% of the American population is involved directly in production agriculture (U.S. Environmental Protection Agency, n.d.). Therefore, assuring future generations are agriculturally literate and are taught about the

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significance of agriculture was a seminal conclusion of the National Research Council's (1988) report, *Understanding Agriculture: New Directions for Education*. The report posited citizens who are educated about agriculture have an understanding of their food and fiber system, including the history of agriculture and its importance to the economic, social, and environmental aspects of society (NRC, 1988). Moreover, Pratzner (1985) asserted career and technical education (CTE) should focus on content designed to meet the needs of the labor market. In particular, CTE should focus on entry-level skill improvement for specialized jobs. Agricultural education is a part of CTE; therefore, one of its primary purposes should be to develop the knowledge and skills necessary for successful employment in the agricultural industry, including career entry and career advancement (Roberts & Ball, 2009).

Conceptually, this study was based on the social learning theory of career decision-making (Krumboltz, Mitchell, & Jones 1976). The social learning approach is based on psychological research of the human learning process. Mitchell (1990) posited an individual's career development and career decisions are based on learned behaviors shaped by unique learning experiences. According to Krumboltz, et al. (1976), career choice and career development are based on four determinants:

- 1) Genetic endowment and special abilities – Refers to the inherited or innate aspect of the person including physical appearance and characteristics such as race, sex, or physical disability; 2) Environmental conditions and events – Refers to factors that affect individuals but are generally outside of their control, such as physical events, technological developments, family resources, community influences, social, political, or economic forces, or natural disasters; 3) Learning experiences – Refers to the unique history of events that result in a chosen career path. *Instrumental learning experiences* occur from the consequences of behavior, or from the consequences of one's own performance. *Associative learning experiences* occur from observing others; 4) Task approach skills – Refers to performance standards, work habits, and cognitive processes developed as a result of learning experiences, genetic characteristics, and environmental influences. They are factors that both influence outcomes, and are outcomes themselves. (pp. 148-155)

In the early 1970s, Roberts' (1971) main goal of the curriculum for vocational agriculture was focused primarily on students' skill acquisition so they could be successful farmers. Although this model of vocational agriculture was embraced for more than 70 years, the National Research Council's report (NRC, 1988) determined a shift in the purpose of agricultural education was necessary and should include a much broader view of the agricultural industry, including career opportunities in sophisticated biological, mechanical, and electronic technologies, as well as preparing students for higher education.

Agricultural education exists, in part, to provide the development of life skills for students to discover their career path and realize success through experiential learning (Baker, Robinson, & Kolb, 2012; Roberts & Ball, 2009). Students must be able to perceive the relevance and potential transfer between the curriculum and the situation or context in which they may use their understanding. To do this, educators must create experiences with consideration of the knowledge and skills at hand and help students make connections between their experiences and their future careers (Arnold, Warner, & Osborne, 2006). In agricultural education programs, students can be challenged by the real-life, hands-on tests of skills used to prepare them for more than 300 careers in the science, business, and technology of agriculture through participating in 24 different national career development events (CDEs), hosted by The National FFA Organization (Croom, Moore, & Armbruster, 2009). CDEs provide a direct extension of the classroom and laboratory by allowing students to apply their knowledge in a competitive environment (Croom et al., 2009) and acquire valuable career readiness and life skills (Connors & Mundt, 2001).

Formal exploration of careers through courses, clubs, and organizations can take place in schools (Super, 1957). To that end, FFA members who choose to participate in CDEs are offered the opportunity to learn outside the classroom by gaining technical content and non-technical skills (Russell, Robinson, & Kelsey, 2010). CDEs prepare students for their future careers by encouraging the critical-thinking, decision-making, and problem-solving skills that are in demand by employers (Phipps, Osborne, Dyer, & Ball, 2008). Talbert and Balschweid (2006) posited, “from an occupational perspective, student involvement in career preparation activities is theorized to lead to more informed, more appropriate career selections” (p. 68). The authors stated further, “participation and involvement in agricultural education, especially the career development aspects of FFA and SAE, may have a positive impact on members’ career development processes” (p. 68).

Park and Rudd (2005) asserted secondary agriculture teachers could influence students’ career decisions through their actions, comments, and instruction. This relationship between teacher and student influences students’ choices of careers (Lawver, 2009). Career development is also shaped by personal and environmental factors, which refer to dynamics that affect individuals but are generally outside of their control (Bandura, 1986).

A variety of factors influence which career paths students may choose. The choices made during this influential period of youth development, i.e., adolescence, will assist in determining the paths of students’ lives and help them choose which aspects of their talents they develop and exercise (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

The purpose of this study was to identify the benefits of CDEs, as perceived by school-based, agricultural education teachers in Oklahoma. Four objectives guided this study:

1. Identify the personal and professional characteristics of school-based, agricultural education teachers in Oklahoma who had trained a first place team at the 2011 or 2012 Oklahoma State FFA Interscholastic event.
2. Determine the skills students acquired as a result of their participation in CDEs, as perceived by school-based, agricultural education teachers in Oklahoma.
3. Determine how CDEs prepared students for potential agricultural careers, as perceived by school-based, agricultural education teachers in Oklahoma.
4. Describe how CDEs improved students’ knowledge about potential agricultural careers, as perceived by school-based, agricultural education teachers in Oklahoma.

## **Methods**

The Delphi survey technique, a research design used to seek consensus, was used in this study. The Delphi technique has been used traditionally to help improve decision-making in a variety of fields, and, when implemented correctly, it can contribute considerably to expanding knowledge within chosen professions (Hasson, Keeney, & McKenna, 2000). Purposeful sampling was used to select members for the jury of experts who served as the Delphi panel. Morse (1991) stated, “when obtaining a purposeful sample, the selective and theoretical sampling researcher selects a participant according to the needs of the study” (p. 129). Stitt-Gohdes and Crews (2002) determined “careful selection of the panel of experts is the keystone to a successful Delphi study” (p. 60). The criterion used to determine qualified members of the expert jury for this study were school-based, agricultural education teachers who had trained a first place CDE team in 2011 or 2012 at the Oklahoma State FFA Interscholastic event. These individuals were identified from reviewing the contest results provided by state staff and university personnel responsible for facilitating the state event. Selection of the Delphi jury (or panel) resulted in a group of recognized experts that included a statewide representation of school-based, agricultural education teachers.

Content validity of Delphi studies can be determined by expert judgment (Gay, Mills, & Airasian, 2006). Accordingly, a panel of experts who were faculty members in the Department of Agricultural Education, Communications and Leadership at Oklahoma State University evaluated face and content validity of the study's questions. Dalkey, Rourke, Lewis, and Snyder (1972) stated a reliability of .70 or greater could be accomplished if a Delphi panel consists of 11 members or more. In addition, Dalkey et al. (1972) reported a group size of 13 was required for reliability with a correlation coefficient of .90. Therefore, 16 members formed the final expert jury suggesting the reliability of the multiple-round Delphi procedure used in this study would meet the expected reliability of .90, as described by Dalkey et al. (1972). Attrition of the expert jury is not uncommon, in the case of this study, it is believed that time of the school year and teacher schedules contributed to the decreased participation of jurors through three rounds of the Delphi study.

### Round one

Personal and professional characteristics unique to each Delphi juror included number of years teaching agricultural education, identification of the Oklahoma FFA District the jurors represented, level of jurors' personal involvement in CDEs as an FFA member, number of CDE teams prepared each year, and the CDE teams in which jurors' students participated. Round one also included three open-ended questions used to obtain feedback from the expert jury:

- What skills do students acquire as a result of their participation in CDEs?
- How do CDEs prepare students for potential agricultural careers?
- How do CDEs improve students' knowledge about potential agricultural careers?

Participants were informed of the study by providing a thorough explanation via an initial electronic mail invitation. An explanatory script was shared with each potential participant to ensure a consistent description of the study existed. This step was intended to encourage jurors to remain involved in each round. According to Stitt-Gohdes and Crews (2004), "it is important that participants understand the goal of the study and feel they are a part of a group" (p. 61).

Electronic follow-up messages were sent to jurors two weeks after the initial invitation. From round one, a total of 196 juror statements were garnered from 30 of the 59 jurors who were invited to participate in the study initially ( $n = 30$ ; 51% response rate). One hundred twenty-six skills were indicated for the first question, *What skills do students acquire as a result of their participation in CDEs?* Thirty-six statements were provided for the second question, *How do CDEs prepare students for potential agricultural careers?* Thirty-four statements were indicated for the third question, *How do CDEs improve students' knowledge about potential agricultural careers?* Each statement was analyzed, and similar or duplicate statements were combined or eliminated (Shinn, Wingenbach, Briers, Lindner, & Baker, 2009). From the 196 original statements, 37 were retained for presentation in round two. The instrument used in round two was developed using the web-based survey tool, *Qualtrics*.

### Round two

The instrument used in round two was emailed to the 30 jurors who participated in round one. Electronic follow-up messages were sent to jurors approximately two weeks after the initial invitation to participate in the second round of the study. Eight of the jurors did not participate in the second round. The instrument asked each juror ( $n = 22$ ; 73% response rate) to rate his or her level of agreement with the 37 statements identified in round one for the three open-ended questions. Jurors were provided the following six-point, summated response scale to rate their level of agreement with the statements derived from round one: 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Slightly Disagree*, 4 = *Slightly Agree*, 5 = *Agree*, and 6 = *Strongly Agree* (Jenkins, 2008; Shinn et al., 2009). Based on a literature review of Delphi studies (Jenkins, 2008; Ramsey,

2009; Shinn et al., 2009), items receiving a score of 5 (*Agree*) or 6 (*Strongly Agree*) by 75% of the respondents were considered items for which consensus was reached. Items for which less than 51% of the respondents scored the item a 5 (*Agree*) or 6 (*Strongly Agree*) were removed from further investigation.

### Round three

The instrument used in round three was emailed to the 22 jurors who participated in round two. Buriak and Shinn (1989) described the third round of a Delphi as developing consensus. Therefore, the instrument used in round three focused on developing consensus for the remaining five items receiving 51% or more, but less than 75% agreement in round two. Electronic follow-up messages were sent to jurors approximately two weeks after the initial invitation to participate in the third round of the study.

The jurors were asked to rate their level of agreement for three skills derived from the question, *What skills do students acquire as a result of their participation in CDEs?* The Delphi jurors were also asked to rate their level of agreement for two statements derived from the question, *How do CDEs prepare students for potential agricultural careers?*

The personal and professional characteristics of the Delphi panelists were analyzed using frequencies and percentages. For each skill item in rounds two and three, the frequency distribution valid percentage was used to determine if the item reached consensus (i.e.,  $\geq 75\%$  of the jurors indicated *Agree* or *Strongly Agree*).

### Results

Of the school-based, agricultural education teachers who completed the instrument used in round one ( $n = 30$ ), 23.3% reported their teaching experience to be five years or less. More than one-fourth (26.7%) of the teachers reported 6 to 10 years of teaching experience. The option of 11 to 15 years teaching experience was selected by 10% of the participants. Four of the 30 jurors (13.3%) indicated 16 to 20 years of experience, four (13.3%) selected 21 to 25 years of experience, and four (13.3%) indicated more than 25 years of experience.

Regarding the Oklahoma FFA districts in which the jurors represented, 20% reported the central district, 23.3% the northeast district, 30.0% the northwest district, 13.3% the southeast district, and 13.3% taught in the southwest district. When queried about their personal involvement in CDEs as an FFA member, 96% of teachers indicated personal involvement in CDEs at the high school level. Ten of the 29 respondents (34.5%) reported personal involvement in activities similar to CDEs at the collegiate level, e.g., soils judging, livestock evaluation, and crops judging. When asked to indicate the number of teams a juror prepared each year, a majority of respondents (51.7%) chose 0 to 5 teams, 44.8% reported 6 to 10 teams. Only one person (3.4%) reported 11 to 15 teams, and no juror selected preparing more than 15 teams. Slightly more than 3% of the respondents indicated 0 to 10 students participated in CDEs through their programs, and 6 jurors (20.7%) reported 11 to 20 students. Participation by 21 to 30 students received the most indications of any selection with 37.9%. About 13% reported 31 to 40 students participated, 10.3% indicated 41 to 50 students were involved, and 13.8% reported 51 or more students participated in CDEs in their agricultural education programs.

### Round One Findings

From round one, 196 total juror statements were reported from 30 of the 59 jurors who were initially invited to participate in the study ( $n = 30$ ; 51% response rate). The first question, *What skills do students acquire as a result of their participation in CDEs?*, resulted in 126 responses. Thirty-six statements were provided for the second question, *How do CDEs prepare*

*students for potential agricultural careers?* Thirty-four statements were listed for the third question, *How do CDEs improve students' knowledge about potential agricultural careers?* The original juror statements (196) were analyzed, and similar or duplicate statements were combined or eliminated (Shinn et al., 2009) resulting in 37 statements (Q1, 26; Q2, 4; Q3, 7) for presentation in Round Two.

### **Round Two Findings**

Twenty-two of the 30 jurors who participated in round one responded to the instrument used in round two, yielding a 73% response rate. Jurors were asked to use a six-point, summated response scale to rate their level of agreement on items derived from the questions submitted in round one. The 26 statements identified for the question, *What skills do students acquire as a result of their participation in CDEs?*, resulted in 23 skills receiving a score of 5 (*Agree*) or 6 (*Strongly Agree*) by 75% or more of the jurors (see Table 1). The four items returned for the question, *How do CDEs prepare students for potential agricultural careers?*, yielded three statements receiving a score of 5 (*Agree*) or 6 (*Strongly Agree*) by 75% or more of the jurors (see Table 2). Finally, the seven statements presented for the question, *How do CDEs improve students' knowledge about potential agricultural careers?*, resulted in six statements receiving a score of 5 (*Agree*) or 6 (*Strongly Agree*) by 75% or more of the jurors (see Table 3).

Table 1

*Round Two and Three Findings: Skills Gained from Career Development Events*

Skills	% Agreement
Teamwork <sup>a</sup>	89%
Competition <sup>a</sup>	89%
Setting and achieving goals <sup>a</sup>	89%
Time management <sup>a</sup>	89%
Self-motivation <sup>a</sup>	89%
Work ethic <sup>a</sup>	89%
Confidence <sup>a</sup>	89%
Leadership <sup>a</sup>	89%
Dedication <sup>a</sup>	89%
Critical thinking <sup>a</sup>	89%
Decision making <sup>a</sup>	89%
Reasoning <sup>a</sup>	89%
Problem solving <sup>a</sup>	89%
Evaluation <sup>a</sup>	89%
Analysis <sup>a</sup>	89%
Public Relations <sup>b</sup>	87%
Job Readiness <sup>b</sup>	87%
Defending opinions <sup>a</sup>	84%
Social interaction <sup>a</sup>	84%
Creativity <sup>a</sup>	84%
Responsibility <sup>a</sup>	84%
Public speaking/Communication <sup>a</sup>	79%
Higher level thinking skills <sup>a</sup>	79%
Core curriculum <sup>a</sup> (i.e., Science, Math, Literacy)	79%
Technical agriculture skills <sup>a</sup> (i.e., Animal selection, Welding, Plant I.D.)	79%

*Note.* <sup>a</sup>Statements that reached consensus in round two. <sup>b</sup>Statements that reached consensus in round three.

Table 2

*Round Two and Three Findings: Potential for Career Preparation*

Career Preparation	% Agreement
Career development events expose students to specific agricultural careers <sup>b</sup>	93%
As a result of their participation in CDEs, students have greater exposure to college campuses <sup>a</sup>	89%
Career development events spark an interest in agriculture <sup>a</sup>	89%
Career development events provide real-world experiences <sup>a</sup>	89%

*Note.* <sup>a</sup>Statements that reached consensus in round two. <sup>b</sup>Statements that reached consensus in round three.

Table 3

*Round Two and Three Findings: Knowledge of Agricultural Careers*

Knowledge of Agricultural Careers	% Agreement
Students involved in CDEs have a greater likelihood of pursuing an ag career <sup>b</sup>	93%
A competitive environment enhances students' ability to learn <sup>a</sup>	84%
Students become acquainted with agricultural industry specialists while practicing and competing in CDEs <sup>a</sup>	84%
While preparing for a CDE, students deepen their knowledge about specific agricultural careers <sup>a</sup>	84%
Career development events provide real-world application of the curriculum <sup>a</sup>	84%
Participation in CDEs exposes students to diverse geographic and agricultural differences <sup>a</sup>	84%
Winning creates motivation to explore careers in agriculture <sup>a</sup>	79%

*Note.* <sup>a</sup>Statements that reached consensus in round two. <sup>b</sup>Statements that reached consensus in round three.

**Round Three Findings**

In round three, jurors were asked to rate their level of agreement on five items ( $N = 16$ , 73% response rate). As a result of round three, jurors reached consensus of agreement on an additional four items. Two of the three items associated with the question, *What skills do students acquire as a result of their participation in CDEs?*, reached consensus of agreement. One additional item associated with the question, *How do CDEs prepare students for potential agricultural careers?*, reached consensus of agreement. Finally, an additional item associated with the question, *How do CDEs improve students' knowledge about potential agricultural careers?*, reached consensus of agreement. Therefore, 36 items reached consensus of agreement after all rounds of the study were completed.

## Conclusions and Recommendations

Concerning objective one, this study found within this particular sample, 50% of school-based, agricultural education teachers had up to 10 years of teaching experience. A majority prepared from one to five CDE teams each year. The jurors represented each of Oklahoma's five FFA districts with the greatest proportion being from the northwest district. An overwhelming majority of jurors reported personal involvement in CDEs at the high school level and about one-third participated in activities similar to CDEs on the collegiate level. The jurors also reported preparing up to 15 CDE teams each year. Further, the jurors reported student involvement in CDEs ranging from fewer than 10 students to more than 50. These findings support Super (1957) who described schools as a place that allows for formal exploration of careers through courses, clubs, and organizations.

Regarding objective two, school-based, agricultural education teachers in Oklahoma who served as jurors for this Delphi study reached *consensus of agreement* on 25 skills students acquire as a result of their participation in CDEs (see Table 1). Findings of this study support research conducted by Connors and Mundt (2001) who suggested that through CDEs students attain valuable career and life skills beneficial for employment in the agricultural industry.

Skill acquisition through CDEs builds on the third component of Krumboltz et al. (1976) social learning theory of career decision-making, which involves learning experiences. More specifically, skill acquisition through CDEs can be labeled as *instrumental learning experiences* that occur from the consequences of behavior, or from the consequences of an individual's performance (Mitchell, 1990). Based on the skills students acquire as a result of their participation in CDEs, as perceived by the Delphi jurors, students gain valuable career and life skills beneficial for employment in both agriculturally related and non-agriculturally related careers.

As for objective three, school-based, agricultural education teachers reached *consensus of agreement* on four items that described how CDEs prepare students for potential agricultural careers. These findings support the mission of career and technical education. According to Pratzner (1985), vocational education, known now as career and technical education or CTE, should focus on content designed to meet the needs of the labor market. In addition, CTE should focus on entry-level skill development for specific jobs.

The statements provided by the agricultural education teacher jury in regard to perceptions of how CDEs prepare students for agricultural careers supports the finding by Croom et al. (2009) regarding students' concerns about developing skills through CDEs assisting them to find, acquire, and build a career in a chosen profession. Finally, school-based, agricultural education teachers also reached consensus of agreement on seven items describing how CDEs improve students' knowledge about agricultural careers (see Table 2).

Concerning objective four, based on the jurors' perceptions, CDEs have the potential to improve students' knowledge about potential agricultural careers. This assumption supports findings by Phipps et al. (2008), Roberts and Ball (2009), and Terry (2004) who suggested one of the primary purposes of secondary agricultural education should be to develop the knowledge and skills necessary for successful employment in the agricultural industry.

## Recommendations for Additional Research

Croom et al. (2009) reported the most important reason for students' participation in CDEs was to learn skills that would translate into career options after graduation from high school. This study supported the notion that students gain valuable workforce skills that are beneficial for a variety of future careers. Additional studies, however, are needed to determine the long-term career benefits of participation in CDEs; therefore, further research should be conducted to examine the effects of CDEs on participants' career choices long term. Talbert and

Balschweid (2006) theorized student involvement in activities such as CDEs lead to more informed and more appropriate career selections. Croom et al. (2009) also found the most important reasons students participated in CDEs was due to the event's relationship to their career preferences. Hughes and Barrick (1993) asserted agricultural education does not end with the completion of secondary education; i.e., employment, additional education, and eventually a career are the intended outcomes of a secondary agricultural education program. Therefore, further research should examine *how* participation in CDEs assists students with making career choices.

In addition, Ramsey and Edwards (2012) recommended research should be conducted to analyze the need for increased job preparedness of students entering the agricultural industry. Those students who make the choice to enroll in an agricultural education class should be afforded the opportunity to learn about the wide array of careers that exist in the agricultural industry. Based on the findings of this study, more emphasis needs to be placed on career preparation through agricultural education.

Agriculture continues to be a major strength of the U.S. economy; however, the total number of individuals involved directly in production agriculture has declined significantly (Conroy, Scanlon, & Kelsey, 1998; NRC, 1988). Further research should assess employers' perceptions of the role CDEs play in students acquiring the entry-level skills needed by the agricultural industry; i.e., what is the *value proposition* of secondary agricultural education students participating in CDEs?

This study found CDEs are an integral part of the agricultural education model. Edwards and Booth (2001) reported agricultural educators need to connect CDEs to the classroom. Planning, practicing for, and participating in CDEs requires a commitment by both school-based, agricultural education teachers and students; therefore, substantial support is needed from local school officials, parents, and community stakeholders. However, little is known about the perceptions of these groups in regard to the value associated with students participating in CDEs. For these reasons, future research should examine these groups' perceptions on the benefit of student participation in CDEs.

### **Recommendations for Practice**

State staff, professional teacher organizations (i.e., Oklahoma Agricultural Education Teachers Association [OAETA]/National Association of Agricultural Educators [NAAE]), and teacher educators should work together to inform teachers' practices in regard to planning and implementing CDEs through the secondary agricultural education model. Further, a shared effort between state leaders, teacher professional organizations, and teacher educators could provide knowledge and resources in-service teachers and pre-service students of agricultural education could use to implement CDEs in their programs more effectively. Even though the in-service needs of agricultural education teachers appear to change over time (Roberts & Dyer, 2004), in 1987, Birkenholz and Harbstreit found more training in the area of CDEs was needed, and nearly 25 years later, Sorensen, Tarpley, and Warnick (2010) also found preparing CDEs teams was identified as an in-service need for agricultural education teachers in Utah.

Further, it is recommended school-based, agricultural education teachers strongly encourage all students to participate in CDEs. Teachers should create a learning environment that motivates students to prepare for and compete in CDEs (Russell et al., 2010). Teachers should also communicate the importance and relationship of CDEs to the future career decisions of their students.

Finally, results of this study should be shared with pre-service agricultural education students, agricultural education student teachers, and agricultural educators at cooperating student teaching centers. Results also should be shared at the Oklahoma Agricultural Education Teachers' Conference.

## Discussion

Phipps et al. (2008) described the purpose of agricultural education as preparing people for entry or advancement in agricultural occupations and professions, job creation, and agricultural literacy. The National FFA Organization reported more than 300 career opportunities in the agricultural science, food, fiber, and natural resources industry exist (National FFA Organization). Talbert and Balschweid (2006) specified, “from an occupational perspective, student involvement in career preparation activities is theorized to lead to more informed, more appropriate career selections” (p. 68). The authors stated further, “participation and involvement in agricultural education, especially the career development aspects of FFA and SAE, may have a positive impact on members’ career development processes” (p. 68). Delphi jurors for this study supported this statement by expressing consensus on 36 skills and statements regarding benefits gained by students’ participation in CDEs. However, not all items met consensus. Career selection was the one statement that failed to reach consensus of agreement with the Delphi jury.

Connors and Mundt (2001) found students gain valuable career and life skills as a result of their participation in CDEs. For this study, we identified 26 skills, as indicated by the Delphi jurors, in response to the question, *What skills do students gain as a result of their participation in CDEs?* However, 23 of those skills can be classified as *soft skills*. According to Bancino and Zevalkink (2007), soft skills are the cluster of personality traits, social graces, facility with language, personal habits, friendliness, and optimism that mark people to varying degrees.

The findings of this study supported the National FFA Mission: “FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agricultural education” (National FFA Organization, p. 5). However, the Delphi jurors identified a greater proportion of soft skills (88.5%) than the technical agricultural skills (11.5%) recognized as being needed for entry-level employment in the agricultural industry (Ramsey & Edwards, 2011, 2012). To that end, has agricultural education shifted its emphasis more toward agricultural literacy, i.e., education *about* agriculture versus career preparation or education *in* agriculture (NRC, 1988)?

Most agree agricultural education programs should teach both technical and non-technical career skills (Ramsey, 2009; Slusher, Robinson, & Edwards, 2010). In 1988, the National Research Council Board on Agriculture stated, “Agriculture – broadly defined – is too important a topic to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies” (NRC, 1988, p. 8). Dailey, Conroy, and Shelby-Tolbert (2001) suggested the comprehensive model of agricultural education, when employed effectively, provides a context for learning essential content and life skills that prepare students for post-secondary education and career areas. The balanced approach by the National FFA Organization to integrate the learning of soft skills and technical agricultural skills through students’ participation in activities such as CDEs was echoed by the school-based, agricultural education teachers who were members of this study’s Delphi jury.

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