IMPACT OF PARTICIPATION IN FFA CAREER DEVELOPMENT EVENTS AND COMPETENCY OF COACHES ON STUDENTS' MOTIVATION

By

MASON JONES

Bachelor of Science in Agricultural Education

Oklahoma State University

Stillwater, OK

2011

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 2018

IMPACT OF PARTICIPATION IN FFA CAREER DEVELOPMENT EVENTS AND COMPETENCY OF COACHES ON STUDENTS' MOTIVATION

MOTIVATION

Thesis Approved:

Dr. Marshall A. Baker

Thesis Adviser

Dr. Shane Robinson

Dr. Robert Terry, Jr.

ACKNOWLEDGEMENTS

Oklahoma State University is a special institution for my entire family and I. I am proud to be the third-generation from my family to be awarded a master's degree from the College of Agricultural Sciences and Natural Resources. I would like to thank my family for their love, and their support of my educational and professional goals.

The faculty at Oklahoma State University have shaped me as a learner, teacher, and professional. I would like to thank my advisor, Dr. Marshall A. Baker, and the rest of my graduate committee, Dr. J. Shane Robinson, and Dr. Robert Terry, Jr., for their guidance and expertise throughout my entire graduate school experience.

Pursuit of this degree has been both challenging and rewarding, and throughout the process it has been important not to lose faith. I have been encouraged by a recurring phrase from one of our greatest Cowboys, Eddie Sutton, who stated, "Always have faith in God, yourself, and the Cowboys."

Name: MASON C. JONES

Date of Degree: MAY, 2018

Title of Study: IMPACT OF PARTICIPATION IN FFA CAREER DEVELOPMENT EVENTS AND COMPETENCY OF COACHES ON STUDENTS' MOTIVATION

Major Field: AGRICULTURAL EDUCATION

Abstract: Career and leadership development events (CDEs/LDEs) have maintained a prominent position in the National FFA Organization throughout the organization's history. These competitive events have been promoted as tools for motivating students toward agricultural education and developing participants' college and career readiness skills. However, a gap in the literature exists in terms of describing the motivating effects of participation in these competitions. As such, a survey design study was initiated to describe the motivational outcomes of participation in CDEs/LDEs, accounting for participants' performance and perception of their FFA advisor's coaching competency. Keller's ARCS model of motivation served as the conceptual base to describe participant motivation, which is grounded in Expectancy Value Theory (EVT). A modified instrument was adapted from Myers, Feltz, Maier, Wolfe, and Reckase to describe coaching competency, and a participant efficacy scale was used to determine students' perception of success and failure in a CDE/LDE. Findings from the study revealed that participants were interested in agricultural careers, but not necessarily related to their CDE/LDE. The findings also showed no significant difference of motivation and efficacy, regardless of participants performance, indicating that students' motivation and efficacy was not influenced by their individual or team ranking. Alternative rewards systems were suggested to recognize mastery of skills rather than winning. Both high and low ranking CDE/LDE participants rated their advisors as highly competent. This result suggested that lower performing CDE/LDE participants do not attribute their performance to their advisors' coaching. It was recommended that teachers establish high performance standards that are clear to their students, and they provide opportunities for students to develop mastery in their skills, leading to greater sources of self-efficacy.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF FIGURES

Figure Page

CHAPTER I

INTRODUCTION

Competition, both innate and organized, is prevalent in almost every aspect of American society. We compete in our business, our hobbies, our work force, and our educational system (Deci, Betley, Kahle, Abrams, & Porac, 1981; Dewey, 1900; Epstein & Harackiewicz, 1992; Johnson & Johnson, 1974; Kilduff, 2014; Kohn, 1986; Murayama & Elliot, 2012; Pepitone, 1980). Competition has a complex standing in education, but literature on educational reform is largely critical of competition as a classroom goal structure (Johnson & Johnson, 1974; 1994; Kilduff, 2014; Murayama & Elliot, 2012). Dewey (1900) criticized the competitive nature of education in America. Johnson and Johnson (1974) found cooperation more effective than competition, particularly in problem-solving tasks. Competition and external reward structures have also been found to undermine intrinsic motivation (Deci, 1976; Deci, Betley, Kahle, Abrams, and Porac, 1981; Deci, Koestner, & Ryan, 1999). Nevertheless, school-based agricultural education (SBAE) has a rich history of utilizing competitions and reward structures as a tool for motivating students toward the curriculum (Tenney, 1977; Tummons, Simonsen, & Martin, 2017; Uricchio, Moore, & Coley, 2013).

In 2017, the National FFA Organization offered 19 career development events (CDE), seven leadership development events (LDE), 47 proficiency awards, five FFA degrees, six divisions of Agriscience Fair competition, four star award categories, three levels of national chapter award recognition, and more than $2.6 million in scholarships (National FFA Organization, 2017). Despite the ambiguity from education scholars toward the merits of competition in education, contests and competitive award programs continue to be a hallmark of SBAE and the National FFA Organization (National FFA Organization, 2016, 2017). According to the *Official FFA Manual* (National FFA Organization, 2017), "The primary goal of career and leadership development events is to develop individual college and career readiness skills, effective decision-making skills, foster teamwork and promote communication while recognizing the value of ethical competition and individual achievement" (p. 66). Although the purpose and objectives of CDEs/LDEs have been investigated over time (Croom, Moore, & Armbrister, 2009; Knobloch, Brady, Orvis, & Carroll, 2016; Mayfield, 1978; National Research Council, 1988; Osborne & Witt, 1985; Russell, Robinson, & Kelsey, 2009; Smith, 1987; Talbert & Balshweid, 2006) it is still unclear if students' participation in these competitions, and their level of performance, has a motivating effect on their future educational and career goals.

Background of the Study

Competitions and award programs have held a prominent place throughout the history of agricultural education (Curry, Falk, Warner, & Park, 2017; Talbert & Balschweid, 2006; Tenney, 1977). Competitions for youth in agriculture preceded the enactment of the Smith-Hughes Act of 1917 and the formation of the National FFA

Organization (Tummons et al., 2017; Uricchio et al., 2013). In the United States, contests associated with agriculture for youth originated in the early 20th century with corn clubs, where students would compare corn yields against those of neighboring rural youth (Uricchio et al., 2013). These early contests were effective in meeting the practical objectives of improving growing methods and yields, but also served to renew students' interest in their school curriculum and provide social development (Uricchio et al., 2013). Agricultural clubs for boys and girls were very pragmatic in their programing, and soon competitions related to farming other fruit and vegetable crops, homemaking, cooking, and canning became popular methods for developing youths' real-world skills (Berry, 1924; Howe, 1910; Uricchio et al., 2013). These practical competitions and projects for rural youth provided the foundation for activities in vocational agriculture curriculum after the enactment of the Smith-Hughes Act (Blakely et al., 1993; Talbert, Vaughn, Croom, & Lee, 2014).

The earliest forms of contests in vocational agriculture were local and statewide events for judging livestock, dairy cattle, poultry, and meats (Tenney, 1977; Tummons et al., 2017). The popularity of these judging events led national administrators of vocational agriculture to coordinate judging competitions on a national level, beginning with dairy cattle at the National Dairy Show in Indianapolis in 1925 (Tenney, 1977; Tummons et al., 2017). The first nation-wide livestock judging contest was held in 1926 with the first National Congress of Vocational Agriculture in Kansas City (Tummons et al., 2017). The National Congress was an immediate success, as 1,524 students attended, and teams from 22 different states competed in the judging events related to livestock, dairy cattle, meats, poultry, and milk quality and dairy products (Tummons et al., 2017).

The National Congress of Vocational Agriculture, and the related judging events, were instrumental in the formation of the Future Farmers of America (Tummons et al., 2017). Stimson and Lathrop (1954) pointed to judging events as the precursory event to the establishment of FFA:

> From the standpoint of the programs of instruction and activities carried on by local agricultural departments, 1928 is chiefly notable as the year when judging and judging contests as activities of high school agriculture pupils reached their zenith; and the national organization of the Future Farmers of America was formed. (p. 46)

The popularity of contests continued to grow in the early years of FFA at a time when interpersonal competition was being promoted in public schools in the 1930s (Johnson & Johnson, 1994; Pepitone, 1980; Tenney, 1977). During the Great Depression era, business organizations such as the Liberty League and the National Association of Manufacturers (NAM) began influential campaigns to promote American ideals of achievement and individualism (Johnson & Johnson, 1994; Pepitone, 1980). The movement led by the Liberty League and NAM was effective in establishing interpersonal competition as the preferred instructional method for student interaction from the 1940s and throughout the 1960s (Johnson, 1994). As a product of the Social Science Research Council (SSRC), human behavioral scientists May and Doob (1937) investigated the social and educational climate that existed in the era leading up to World War II (Pepitone, 1980). May and Doob (1937) highlighted a systematic paradox in the educational system:

> The state of affairs in American culture then is that, *while paying respectful homage to cooperative ideals, we go right on with our competitive system* and justify it on the grounds that "human nature" is basically and fundamentally competitive and always will be so. (pp. 81-82)

Johnson & Johnson (1994) described the competitive atmosphere that continued into the 1950s stating, "Social Dawrinism, expressed in the myth that it was a 'dog-eat-dog' world in which only the fittest survive, became widespread" (p. 158).

The number of FFA contests gradually continued to grow throughout the twentieth century (see Table 1). The term *career development event* became the term used for FFA contests beginning in the 1994 National FFA Convention (National FFA Organization, 1994). Eight new FFA CDEs were added in the following decade on the national level, including those with an emphasis on leadership and communication development such as parliamentary procedure, marketing plan, and agricultural sales (see Table 1). In 2017, the National FFA Organization introduced the term *leadership development event* for six contests previously known as CDEs and introduced one new LDE event (National FFA Organization, 2016).

After decades of interpersonal competition serving as a prominent method of instruction in the classroom and in extra-curricular activities, the effects became evident. Johnson and Johnson (1994) summarized the competitive nature of American schools at the time:

> Observational studies have found that competition and individualistic learning are used 85 to 95 percent of the time in American schools. There is evidence, furthermore, that (1) most students perceive school as being competitive, (2)

> American children are more competitive than are children from other countries, (3) American children become more competitive the longer they are in school or the older they become . . . . (p. 158)

Need for the Study

Almost 20 years ago, an anonymous author under the pseudonym, "a Caring Critic," wrote in *The Agricultural Education Magazine,* "We assert that the FFA [Future Farmers of America] develops premier leadership, personal growth, and career success. But does it really? Just because we say it does, doesn't necessarily mean it really does" (p. 27). One of the primary purposes of FFA contests, particularly CDEs/LDEs, is to motivate students toward the curriculum (Carter, 1978; Gray, 1958; Mayfield, 1978; Myers, Dyer, & Breja, 2003; Russell et al., 2009). Benefits of participation in agricultural youth contests have been examined from the perceptions of FFA advisors (Harris, 2008; Lundry, Ramsey, Edwards, & Robinson, 2015), Extension educators (Burnett, Johnson, & Hebert, 2000), and parents (Kieth & Vaughn, 1998). However, literature to gauge students' motivation toward CDEs/LDEs has been limited (Alfred et al., 2007; Croom et al., 2009; Knobloch et al., 2016). Knobloch et al. (2016) highlighted the need to investigate motivation directly from the perspective of the youth participant and validated an instrument to assess the motivating factors for youth to participate in a CDE. Knobloch et al. (2016) suggested, "one might expect that self-efficacy would be higher as youth advance to a higher level of competition" (p. 25). The unique aspect of the population in this study is that even though the Oklahoma State University (OSU) FFA Interscholastic is a statewide competition, most of the CDEs are non-qualifying, and teams and individuals may participate by simply registering through an open, online

process. Thus, a potentially wide range of students' motivation and self-efficacy may exist in any given event. Knobloch et al. (2016) also suggested further research into aspects of the learning process, such as coaching strategies, that may affect student motivation. The discrepancy between teacher and student responses from recent literature in SBAE also underlines the need to gain students' perspectives on the effects of the coaching ability of their FFA advisors (Croom et al., 2009; Knobloch et al., 2016; Lancaster, Knobloch, Jones, & Brady, 2013; Lundry et al., 2014). Having a better understanding of the motivational outcomes of participation in a CDE will benefit teachers, stakeholders, and teacher educators in their approach to CDEs and LDEs as motivational and instructional tools.

Statement of the Problem

Even with the abundance of literature critical of competitive classroom methods and goal structures (Johnson & Johnson, 1974, 1994; Kohn, 1986; May & Doob, 1937), competitions have remained prevalent throughout the history of SBAE (Curry, Falk, Warner, & Park, 2017; Talbert & Balschweid, 2006; Tummons et al., 2017). Research applied to FFA CDEs/LDEs in recent years has been concerned primarily with recruitment techniques (Rayfield, Fraze, Brashears, & Lawver, 2009; Russell et al., 2009), training methods (Ball et al., 2016a; Ball, Bowling, & Sharpless, 2016b), and assessing why students choose to participate (Curry et al., 2017; Croom et al., 2009; Knobloch et al., 2013; Lancaster et al., 2013). Research examining the motivational effects for students after participation in CDEs/LDEs has been scant. Thus, research is needed to investigate the effects of students' past performance on motivation toward CDEs/LDEs and related curriculum and career opportunities.

Purpose of the Study

The purpose of this study was to examine the motivational influence of competition in a CDE/LDE for students in SBAE, and to account for the motivating influence of advisors' coaching competency.

Statement of the Research Questions

This study was framed by eight research questions:

1. What are the demographic characteristics of participants in the 2017 OSU CDE/LDE Interscholastic?
2. What are participants' career interests related to agriculture and their respective CDE/LDE?
3. How do students define success and failure from their participation in a CDE/LDE?
4. Are there statistically significant differences in motivation between groups based on team and individual performance?
5. What are students' perceptions of their FFA advisors coaching competencies?
6. How do students' perceptions of their advisors' coaching competencies influence their motivation toward a CDE/LDE?
7. What is the relationship between FFA members' perception of their advisors' coaching competency and their self-efficacy in a CDE?
8. Do significant differences in FFA members' perception of their advisors' coaching competencies exist between groups based on team and individual performance in a CDE?

Definition of Terms

Agricultural Education - "Agricultural education is a systematic program of instruction available to students desiring to learn about the science, business, and technology of plant and animal production and/or about the environmental and natural resources systems." (The Council, 2012, para. 1).

Attention - "capturing the interest of learners; stimulating the curiosity to learn" (Keller, 1987c, p. 2).

Career and Leadership Development Event - A series of competitive team and individual events conducted by the National FFA Organization the goal to "develop individual college and career readiness skills, effective decision-making skills, foster teamwork and promote communication while recognizing the value of ethical competition and individual achievement" (National FFA Organization, 2017, p. 66).

Coaching Competency - An athlete or student's evaluation of their coach's ability to influence his or her motivation, technique, and character or attitude towards a particular sport or activity (Myers, Feltz, Maier, Wolfe, & Reckase, 2006).

Competition - when groups or individuals are striving to achieve the same goal, which is scarce (Deutsch, 1949; Murayama & Elliot, 2012). Competition may occur as a trait of the person, a perceived situation, a structural situation, between individuals, and between groups (Murayama & Elliot, 2012)

Confidence - "Helping the learners believe/feel that they will succeed and control their success" (Keller, 1987c, p. 2).

Expectancy - "refers to one's expectation for being successful" (Keller, 1987a, p. 3). Eccles et al. (1983) defines expectancy as "probability of success" (p. 81), and described it as responsible, in part, for achievement-related behavior.

Motivation - "That which accounts for the arousal, direction, and sustenance of behavior" (Keller, 1979, p. 27).

Relevance - "Meeting the personal needs/goals of the learner to effect a positive attitude" (Keller, 1987c, p. 2).

Satisfaction - Reinforcing accomplishment with rewards (internal and external)" (Keller, 1987c, p. 2).

Self-efficacy - An individual's belief in his or her ability to influence events that affect his or her life and to perform specific tasks (Bandura, 1977, 1997).

Value - the relative attractiveness of success or failure on an achievement-related task (Atkinson, 1957; Wigfield, 1994). Value also refer to the importance of the task, as perceived by the participant (Schunk, 2012).

Assumptions of the Study

The following assumptions were made in preparing, administering, and analyzing this study:

1. FFA advisors followed the participation protocol for sharing information with their students, as laid out by the instructions sent to them via an email invitation.
2. Participants were able to access the questionnaire either by computer, tablet, smart phone, or other internet-capable electronic device.

3. Participants approached the questionnaire in a sincere manner and completed each item to the best of their ability.
4. Participants answered the questionnaires truthfully.

Limitations of the Study

Due to the nature of behavioral research, and in compliance with the policies of the Institutional Review Board (IRB), the researcher acknowledges a number of limitations to this study:

1. The findings of this study are limited to SBAE programs in Oklahoma and should not be generalized to a larger population (Privitera, 2014).
2. The test was limited to participants that received access to an internet-capable electronic device.
3. The data collection period in this study occurred amid a state-wide teacher walk-out; therefore, response rate was limited.

Organization of the Thesis

This thesis was organized into five chapters. Chapter I provided a general introduction to the thesis. It included the background and need for the study, the statement of the problem, the purpose of the study, the statement of the research questions, definitions of terms, limitations and assumptions of the study, and a chapter summary. Chapter II provides an extensive review of the existing literature related to competition as a goal structure in education and in SBAE, as well as an introduction to the theoretical framework. Chapter III provided a detailed description of methodology and procedures. Chapter IV addresses the first three research questions and was formatted

as a research article examining students' definitions of success and failure in a CDE/LDE, and students' motivation after participation in a CDE/LDE. Chapter V is a research article addressing research questions four through seven by examining the effect of students' perceptions of their advisors' coaching competency on their motivation and efficacy toward a CDE/LDE.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter provides an in-depth review of the literature related to competition in educational settings and competition in SBAE, specifically. Literature related to major constructs associated with this study is also presented. The review includes a description of the theoretical framework of the ARCS model, grounded in Expectancy-Value Theory (EVT). The chapter is divided into sections including theoretical framework, origins of research on competition, competition in educational settings, competition in agricultural education, and a summary of the chapter.

Theoretical Framework

One of the research questions in this study is to investigate how winning and losing performances can affect the motivation of high school students toward their CDE/LDE. A theory of motivation to describe this phenomenon is expectancy-value theory (Atkinson, 1957; Eccles et al., 1983; Wigfield & Eccles, 2000). According to Wigfield and Eccles (2000), "Theorists in this tradition argue that individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity" (p. 68).

John Atkinson (1957) developed the Expectancy-Value Theory (EVT) of achievement motivation to explain how the motive to approach success and avoid failure affect behavior in an achievement situation. EVT proposed the best stimulus for achievement behavior is a combination of strong hope for success and a low fear of failure (Schunk, 2012). Atkinson (1957) represented this principle of motivation with the formula: "motivation = (motive x expectancy x incentive)" (p. 361).

A contemporary model of achievement motivation was developed by Wigfield and Eccles (2002) and describes further the constructs of expectancy and value (Eccles et al., 1983; Schunk, 2012; Wigfield, 1994; Wigfield & Eccles, 2000). The model was proposed originally by Eccles et al. (1983) and stated achievement-related behaviors such as persistence, choice, and performance are determined by expectations of success and subjective task value. According to the model from Eccles et al. (1983), subjective task value contains four major components: attainment value, intrinsic value, utility value, and cost. Attainment value is the importance one places on doing well in a given task (Wigfield, 1994). *Intrinsic value* describes the internal enjoyment or satisfaction from participation in a task (Wigfield, 1994). *Utility value* is known as the usefulness of the task to one's future goals or aspirations (Wigfield, 1994). *Cost* is defined as what must be given up by an individual to accomplish the task, along with the expected effort required from the task (Wigfield, 1994).

Conceptual Frameworks

Three different concepts shaped this study's investigation into participant motivation, self-efficacy, and coaching competency. The following sections described the factors that explain CDE/LDE participants' behavior following participation in a

competitive event.

ARCS Model of Motivation

To examine students' motivation to learn by experiencing a particular course or learning condition, Keller (1987a) developed the ARCS Model of motivational design (Keller, 1979; 1984; 1987a; 1987b; 1987c). Keller (1987) stated, "the ARCS Model is a method for improving the motivational appeal of instructional materials" (p. 2). Keller (1979) defined motivation as "that which accounts for the arousal, direction, and sustenance of behavior" (p. 27). The ARCS model is grounded in Expectancy-value Theory (Atkinson, 1957; Eccles et al., 1983; Lewin, 1938; Tolman, 1932). Within the ARCS model (Keller, 1987c), four factors initiate and sustain motivation toward learning. The first component, attention, is considered a prerequisite for learning, gaining and sustaining attention is the first condition of motiving students to learn (Keller, 1987a). The second component, relevance, involves instruction that meets the needs of students' personal and professional goals. Although proponents of a classical education may suggest learning should not be driven by such outcomes, Keller (1987a) suggested the instructional approach can also bring about relevance to students, rather than being limited exclusively to content. According to Keller (1987a), "people high in 'need for achievement' enjoy the opportunity to set moderately challenging goals, and to take personal responsibility for achieving them" (p. 3). The third component, confidence, can affect how a student approaches and endures through challenging tasks and is able to achieve success (Keller, 1987a). The final component, satisfaction, includes structures that reinforce the positive feelings of accomplishment through rewards with the intent of stimulating intrinsic motivation (see Figure 1).

Major Categories & Definitions		Major Process Questions
Attention	Capturing the interest of learners; stimulating the curiosity to learn	*"How is this learning valuable and stimulating to my students?"*
Relevance	Meeting the personal needs/goals of the learner to affect a positive attitude	
Confidence	Helping the learners believe/feel that they will succeed and control their success	*"How can I (via instruction) help students succeed and allow them to control their outcomes?"*
Satisfaction	Reinforcing accomplishment with rewards (internal and external)	

Figure 1. Keller's (1987b) Components of the ARCS Model. Adapted from "Strategies for Stimulating the Motivation to Learn" by J. M. Keller, 1987, *Performance and Instruction, 26*(8), p. 1-7.

Coaching Effectiveness

Teachers in SBAE programs can be very influential in the recruitment of students participation in CDEs/LDEs, and ultimately in their success regarding the competitive events (Ball et al., 2016a; Ball et al., 2016b; Knobloch et al., 2016; Jones, 2013; Rayfield et al., 2009; Russell et al., 2009). Ball et al. (2016b) concluded the coaching process parallels with effective teaching and instruction. Ball et al. (2016a) stated motivation was essential to coaching and training successful CDE teams and expressed a need to examine what motivational strategies can affect the learning environment for coaching a CDE team.

Coaching Competency

A teacher's sense of self-efficacy, or their belief in their ability to affect student performance, can have an impact on their overall effectiveness (Ashton, 1984; Gibson, &

Demo, 1984; Vargas-Tonsing et al., 2003). More specifically, coaching efficacy is defined as "the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes" (Feltz, Chase, Moritz, & Sullivan, 1999, p. 765). However, Smoll and Smith (1989) proposed, "the ultimate effects of coaching behaviors are mediated by the meaning that players attribute to them" (p. 1527). As such, research has investigated athletes' evaluations of their coach's competency based in a number of areas of coaching efficacy (Myers, Feltz, Maier, Wolfe, & Reckase, 2006; Myers, Chase, Beauchamp, & Jackson, 2010). Evidence from previous coaching effectiveness research suggested coaching competency can influence and even predict athlete satisfaction, performance, and motivation (Horn, 2002; Myers et al., 2006, 2010). The constructs of coaching efficacy (Myers et al., 2006) consist of four subscales: motivation competency, game strategy competency, technique competency, and character-building competency (Myers et al., 2006). Motivation competence refers to the perceived ability of the coach to influence players' psychological state and skills (Feltz et al., 1999; Myers et al., 2006). Game strategy refers to the competence of coaches during competition, and technique competency describes the coach's ability to instruct and correct problems (Feltz et al., 1999; Myers et al., 2006). Finally, character-building competency refers to a coach's influence in players' personal development and positive approach to their sport (Feltz et al., 1999; Myers et al., 2006).

Self-efficacy

Bandura (1997, 1977) described self-efficacy as an individual's belief in his or her ability to influence events that affect his or her life and to perform specific tasks. According to Bandura (1977), self-efficacy expectations are derived from four major

sources: (a) mastery experience, (b) vicarious experience, (c) verbal persuasion, and (d) emotional arousal. Vargas-Tonsing, Warners, and Feltz (2003) asserted these sources are fundamental to instruction in both coaching and teaching. Vargas-Tonsing et al., (2003) conducted a study to examine the relationship between coaching efficacy and player and team efficacy in volleyball. Coaching efficacy was measured using the scale developed by Feltz et al. (1999). Vargas-Tonsing et al., (2003) also developed and validated a 7-item scale for player self-efficacy and a 10-item scale for team efficacy. Vargas-Tonsing et al., (2003) concluded coaching efficacy was a statistically significant predictor of team efficacy, specifically a coach's sense of self-efficacy can influence the confidence of the players on his or her team.

Origins of Research on Competition

The motivational effects of competition have been a topic of social science research dating back to the end of the 19th century (Triplett, 1897). To date, research investigating the effect of competition on motivation has produced mixed results (Deci, Betley, Kahle, Abrams, & Porac, 1981; Deutsch, 1949; Kilduff, 2014; Kohn, 1992; May & Doob, 1937; Reeve & Deci, 1996; Slavin, 1977; Tauer & Harackiewicsz, 1999, 2004).

Credited as the first study to examine the effects of competition on human performance, Triplett (1897) analyzed the dynamogenic factors associated with pacemaking and competition in the context of bicycle races. Triplett (1897) recorded and compared times of riders in three situations: unpaced racing, paced racing, and real competition. Riders in competition were found to perform faster than when alone or with a pacesetter. According to Triplett, "[W]e infer that the bodily presence of another contestant participating simultaneously in the race serves to liberate latent energy not

ordinarily available" (p. 533).

Other early studies of competition served to provide definitions of complexities of competitive situations, and early clinical examinations into the effects of competition compared to cooperative and individual environments. Allport's (1924) *Social Psychology* was one of the earliest works to examine the social behavior and the "stimuli and reactions arising between an individual and his fellow" (p. 3). Allport (1924) used the term competition interchangeably with rivalry, and he supported Triplett's design that social facilitation always involves an element of rivalry or drive to do better than others. May and Doob (1937) conducted an early review of literature on competition and cooperation, and provided a summary of both conditions:

> Competition or co-operation is directed toward the same social end by at least two individuals. In competition, moreover, the end sought can be achieved in equal amounts by some and not by all of the individuals thus behaving; whereas in co-operation it can be achieved by all or almost all of the individuals concerned. (p. 6)

Deutsch (1949) created early definitions of competition and cooperation conditions and theorized their effect on small group functioning. According to Deutsch (1949), individuals in competitive conditions who enter a goal region also exclude others from entering that goal region to a certain extent. In cooperative conditions, individuals who enter a goal region automatically ensure the entrance of others into that goal region. According to Deutsch (1949), if a group or individual in a competitive social situation achieves its goal, a separate group or individual is unable to achieve all or some of its goals. He admitted a purely negative correlated competition is rare, and competitive

situations are complex. For example, members of the same athletic team may be involved in cooperation with each other during a game but may be in competition to score the most points.

Festinger's (1954) social comparison theory proposed that when other more objective means of measuring and validating opinion or performance, other people may serve as standards for comparison. The theory suggests the drive for self-evaluations based on comparison with other persons. Festinger's (1954) theory is credited for pushing the focus of social psychology away from the group and toward person-to-person relations.

Miller and Hamblin (1963) reviewed 24 different studies about cooperation and competition. Fourteen of the studies found competition to be more effective than cooperation on performance, and 10 found the opposite to be true. The mixed results led the authors to conclude different goal and task interdependencies could explain the differing levels of performance. According to Miller and Hamblin (1963), "It is possible that the contradictory results occur because the differential rewarding under conditions of low task interdependence has one effect on productivity, whereas differential rewarding under conditions of high task interdependence has quite another" (p. 769).

Motivational Attributes of Competition

Competition has been found to be effective in motivating certain individuals in favorable situations. Epstein and Harackiewicz (1992) found individual's differences may affect responses to competition, as students participating in high achievement motivation puzzle activities responded positively to competition, and students in low achievement motivation responded negatively to competition. Tauer and Harackiewics (1999) sought

to explain why higher achievement motivation was more enjoyable by examining effects of competition and achievement orientation on intrinsic motivation. The study predicted that competition can have both a positive and negative effect on intrinsic motivation, and achievement orientation can be a moderating factor. The context that is established prior to the competition was identified as the factor that led to differential effects of competition in spite of winning or losing, and positive or negative feedback. Tauer and Harackiewicz (1999) concluded their results emphasized the "importance of the motivational processes initiated by competition both separately and in conjunction with the processes initiated by feedback" (p. 236).

Another gauge of intrinsic motivation and performance from cooperation and competition in the context of sport, particularly basketball free throw shooting, takes place across four studies by Tauer and Harackiewicz (2004). The study also compared intergroup competition with pure competition and pure cooperation for its effectiveness on intrinsic motivation and performance. The authors cited its real-world prevalence despite of a lack of intergroup research. The studies found intergroup competition resulted in the highest performance and reported levels of task enjoyment than both pure cooperation and pure competition (Tauer & Harackiewicz, 2004).

Criticism of Competition

To foster a more cooperative and social society, Dewey (1900) promoted a more cooperative school and classroom environment. His work criticized the American ideal of competition as he stated:

> Indeed, almost the only measure for success is a competitive one, in the bad sense of the term—a comparison of results in the recitation or in the examination to see

> which child has succeeded in getting ahead of others in storing up, in accumulating, the maximum of information. (p. 29)

Citing interpersonal competition as the most prevalent goal structure used in instruction at the time, Johnson and Johnson (1974) called for the need to re-evaluate competition, as well as cooperative, individualistic, and no goal structure, for their effectiveness in bringing about student achievement. Their study defined competition and cooperation further based on Deutsch (1949) to their purest forms. Johnson and Johnson (1974) highlighted empirical findings that generalize populations in competitive goal structures including: school is seen as competitive to most students, American students tend to be more competitive than students from other countries, and urban students are more competitive than rural students. Their review highlighted the findings of negative effects from competition conditions within problem solving tasks, even though it shows to be superior for facilitating simple, skill-oriented tasks. In terms of problem solving, the review pointed to cooperative goal structures as the more effective methods for improving student achievement (Johnson & Johnson, 1974).

As students of Morton Deutsch, Johnson and Johnson expanded on Deutsch's (1949) theory. Their work, *Cooperation and Competition* (1989), was a comprehensive review of social interdependence, i.e., cases where individuals share common goals that affect behavior and outcomes of others. Their work diverged competition into two categories: (a) one of opposition and (b) one of coaction. Both categories of competition resulted in negatively correlated outcomes. A summary of over 185 studies concluded that cooperation, not competition, was the most effective of the three major interdependent conditions for both individual achievement and group productivity.

Competition has been found to undermine intrinsic motivation and produce a controlling effect on participants. Deci, et al. (1981) measured the effect of competition on the intrinsic motivation of students using puzzle activities. Deci et al. (1981) predicted the controlling aspect of competition would decrease students' intrinsic motivation for the informational aspect of the task. Study participants were instructed to either solve the puzzle as quickly as possible, or to try to solve the puzzle faster than the other person. Deci et al. (1981) concluded trying to win, specifically to do better than others, was extrinsically rewarding and reduced the subjects' intrinsic motivation.

Competition in Educational Settings

Investigations of competition as an instructional strategy have produced mixed results similar to those found in social science literature. Despite of much criticism applied to competition as an instructional strategy, it has remained prevalent in education throughout a majority of the 20th century (Johnson & Johnson, 1994). In his analytical review of reward structure in a classroom, Slavin (1977) concluded:

> The interesting findings about reward structures for classroom practice in the future will almost certainly come out of classroom, not laboratory studies. Classroom research in this area has been much too scarce. However, current indications are that by studying alternative reward systems in real classrooms, particularly those systems that draw on the strengths of different interpersonal reward structures, we may develop the means to significantly improve the academic performance and social connectedness of students. (p. 650)

Clifford (1971) observed the effects of competitive treatments for classroom motivation. He concluded research regarding competitive and cooperative learning

strategies and environments lacked consistency, and no consensus had been reached as to which method was most appropriate in numerous situations for various learners. Competition may occur in the form of contests, class rankings, scholarships, and awards (Clifford, 1971). As such, Clifford (1971) examined the three-way interaction of student ability, presence or absence of a reward, and grouping in a competition condition between 112 fifth and sixth grade students. He concluded competition with the presence of rewards in a homogeneous grouping based on ability was the most effective classroom treatment amongst a total of seven treatments tested. The study also concluded the effectiveness of rewards may vary based on the homogeneity or heterogeneity of the group. In particular, He found students considered it less appealing to seek reward or recognition when matched poorly within the group, especially for those with a decided advantage in competition.

Clifford (1972) later examined the effect of competition within a learning environment on students' performance, interest, and retention. He tested 66 classes of fifth-grade students in a non-competitive control group, competitive reward group, and a competitive game group. He found though students were more interested in the competitive conditions than in neutral conditions, the competition did not affect performance or retention in a vocabulary problem solving activity. Clifford's study provided evidence that competition increases performance on simple tasks. But he concluded, "(1) intrinsic motivation becomes increasingly important as task-complexity increases, (2) extrinsic motivation becomes decreasingly important as task-complexity increases, and (3) extrinsic motivation becomes increasingly important as intrinsic motivation become decreasingly important" (p. 134).

Student Reaction to Success and Failure

Social science and education scholars have investigated reactions of children and adolescents to success and failure in achievement situations (Ames & Ames, 1978; Parsons & Ruble, 1977; Reeve & Deci, 1996; Reeve, Olsen, & Cole, 1985). Parsons and Ruble (1977) examined children's responses to failure in a competitive situation. Existing research prior to their study had concluded that an individual's persistence and performance could be affected by his or her likelihood for success. They predicted that older, school-aged children would report less expectancy than younger, pre-school aged children. They said, "As predicted, the effect for age is the result of the decreasing certainty of success as a function of age" (p. 1076). Their study concluded preschool children had not yet been able to see the relevance of past outcomes and suggested it was due to cognitive immaturity. The more advanced memory and integration of serial information within school aged children caused them to have relatively lower achievement-related expectancies. This finding complimented the increase in a child's response to failure with age, along with a decline in response to success (Parson & Rubles, 1977).

Reeve and Deci (1996) examined the influence of five different competitive conditions on the intrinsic motivation and self-determination on undergraduate subjects in a puzzle activity with confederates. The five conditions were: no competition with no feedback, competition with no feedback, losing a competition, winning a competition in a non-pressured situation, winning a competition in a pressured situation. As predicted by the researchers, the study found the controlling interpersonal setting that pressured participants to win did decrease their intrinsic motivation. They concluded winning or

losing without receiving positive or negative information about performance will not affect participants' intrinsic motivation. The study concluded the most critical intrinsically motivating factor in the competitive condition was receiving positive information about one's performance. Reeve and Deci (1996) reflected on their findings in the context of our nation's culture stating:

> The results of this study indicate that winning a competition may not undermine intrinsic motivation if the interpersonal context does not add undue pressure to win. Unfortunately, it seems that the unyielding focus of our society on winning—whether in athletic competition or in school performance, for example—may be creating a pressuring context that can have quite negative effects on individuals' experience and motivation. (p. 32)

Research on Competition in Agricultural Education

SBAE programs follow a three-component model that consists of classroom and laboratory instruction, FFA, and supervised agricultural experiences (National FFA Organization, 2017; Talbert et al., 2014). As such, the National FFA Organization is an intra-curricular organization for secondary students grades 7 through 12 that extends beyond the classroom and laboratory but is tied closely to the curriculum (National FFA Organization, 2016a). The FFA mission states, "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, 2016a, p. 7). FFA has provided members the opportunity to apply their knowledge and practice career and life skills while being rewarded and recognized for their outstanding performances (Talbert & Balschweid, 2006).

Table 1 provides a summary of all CDEs/LDEs and the year in which they were established on a national level. With the exception of the addition of a public speaking contest in 1930, opportunities for competition in FFA continued with the original five contests for 46 years (see Table 1). The Vocational Education Act of 1963 (P.L. #88-210) was instrumental in shifting the focus of SBAE to include off-farm agricultural opportunities (National Research Council, 1988). This focus on career development and training students for employment was reflected in the declaration of purpose within the Vocational Education Act, which stated students, "will have ready access to vocational training or retraining which is of high quality, which is realistic in the light of actual or anticipated opportunities for gainful employment" (Vocational Education Act, 1963, p. 403). Five new FFA contests were added in the 1970s including Floriculture, Nursery/Landscape, and Farm and Agribusiness Management (see Table 1).

Table 1

National FFA Career and Leadership Development Events

Name	Year initiated
Career Development Events	
Dairy cattle management and evaluation	1925
Livestock evaluation	1926
Meats evaluation and technology	1926
Milk quality and products	1926
Poultry evaluation	1926
Prepared public speaking	1930
Agricultural technology and mechanical systems	1972
Farm and agribusiness management	1976
Floriculture	1979
Nursery/landscape	1979
Forestry	1985

Name	Year initiated
Marketing plan	1993
Horse evaluation	1994
Food science and technology	1997
Environmental and natural resources	1999
Agricultural communications	2000
Dairy handlers activity	2000
Agronomy	2001
Veterinary science	2012
Leadership Development Events	
Extemporaneous public speaking	1979
Agricultural sales	1991
Parliamentary procedure	1992
Agricultural issues	1997
Creed speaking	1999
Employment skills	2001
Conduct of chapter meetings	2017

Note. Information retrieved from the National FFA Organization (2016); National FFA Convention Proceedings 1931 to 2012; and Tenney (1977). Adapted from Jones & Edwards (2018).

Another major spike in the growth of contests came as a result of the suggestions brought forth by the National Research Council's (1988) *Understanding Agriculture: New Directions for Education.* The study conducted by the National Research Council criticized what was found to be antiquated instruction that failed to address changing student demographics, growth in technology, and modern challenges facing agriculture (National Research Council, 1988). Specifically, the National Research Council (1988) reported concerning findings related to competition as they stated, "based on evidence and testimony, the committee finds that some vocational agriculture teachers are unduly driven by a desire to help students excel in traditional production-oriented FFA contests

and award programs" (p. 43). The study gave the following recommendation for reforming FFA and its competitive programs:

> The FFA should revise the nature, focus, and award structure of its contests and activities to open more new categories of competition in areas outside production agriculture; reduce the number of production-oriented activities and programs; attract minorities and girls into vocational agriculture programs; and minimize absences and conflicts with regular school programs. (National Research Council, 1988, pp. 44-45)

The National FFA Organization is one of 11 different career and technical student organizations (CTSO) that teach skills related to specific careers through competitions, internships, service learning, and personal and social development activities (Alfred et al., 2007; United States Department of Education, 2017). Alfred et al., (2007) conducted a large-scale, quasi-experimental study to examine the effects of participation in CTSOs. The researchers identified four distinct experiences that all CTSOs provided for students, which consisted of leadership, professional development, community service, and competitions. They predicted CTE students who participated in CTSOs have a statistically significant advantage over non-CTE students in a number of achievement variables such as academic motivation, civic engagement, career self-efficacy, and college aspirations. Of the four major CTSO experiences, competition was found to produce the most positive effects (Alfred et al., 2007).

However, research related to the value of CDEs/LDEs specifically in SBAE have not yielded conclusive results. The literature related to competition in an agricultural education setting has primarily sought ways to promote or improve competition programs

(Ball, Bowling & Bird, 2016a; Ball, Bowling & Sharpless, 2016b; Blakely, 1993; Croom, Moore, & Armbrister, 2009; Knobloch et al., 2016; Lundry et al., 2015; Russell et al., 2009; Smith & Collins, 1987). To highlight benefits of career development events, Lundry, et al. (2015) gauged the perception of SBAE instructors. The researchers used a Delphi technique to solicit responses from a panel of agricultural education teachers from Oklahoma. Teachers were considered to be experts for the study, as they had previously trained a state winning career development event team. Lundry et al. (2015) identified 25 skills acquired from career development events (CDEs) that reached a consensus from the panel. The top skills included teamwork, competition, setting and achieving goals, time management, and self-motivation. The Delphi panels also reached a consensus on four statements related to the career preparation FFA members receive from participation in CDEs. The statement receiving the largest percentage of agreement from the panel was, "Career development events expose students to specific agricultural careers" (Lundry et al., p. 50).

The value of CDEs/LDEs also has been assessed from the perspective of parents with student involved in 4-H competition. Kieth and Vaughn (1998) found 4-H parents had a very positive attitude toward statements related to competitions. Parents in the study reported competitions enhanced their child's personal skills, self-esteem, and motivation for success.

Russell, et al. (2009) also queried agricultural education instructors from Oklahoma who had previously trained state winning CDE teams. The purpose of their qualitative study was to identify how successful teachers motivated students to participate in CDEs. The researchers interviewed and observed eight different teachers from

Oklahoma based on their program's previous success in numerous CDEs. Six different themes were identified from the study:

> 1) drawing upon the traditions and successes of the chapter, 2) providing opportunities for students to compete, 3) promising students that they will gain life skills, 4) enabling students to have fun, 5) actively recruiting members who show potential for doing well with CDEs, and 6) making CDEs an integral part of the classroom curriculum. (Russell et al., 2009, p. 108)

Russell et al. (2009) concluded students are motivated to participate in CDEs if they consider the activity to be valuable to them.

To describe how to motivate CDE teams and the role of competition, Ball, et al. (2016a) conducted a case study over the course of 16 weeks that tracked an agricultural education program through the CDE season. The qualitative study was comprised of 46 student interviews, three FFA Advisor interviews, and one administrator interview. Two major themes emerged from the interviews: performance and motivation coaching strategies. They concluded the motivational strategies employed by the instructor were initially extrinsic but evolved to intrinsic motivation strategies as students gained a deeper understanding of content related to their CDE.

Other research has focused specifically on ways to improve teaching and training CDE content. Ball et al. (2016b) observed the coaching behaviors of agricultural education teachers in practices and noted specific behaviors using an instrument, and then interviewed each of the teachers. The study revealed practice mechanics, knowledge acquisition, and coach and team development comprised the majority of time spent on

CDE team development. Ball et al. (2016b) concluded successful agricultural education instructors deliver CDE content, coach to design CDE practices, and mentor to reinforce and motivate students.

CDE/LDE research conducted from the students' point of view in both 4-H and FFA has yet to provide a consistent conclusion of the merits of youth competition in agriculture. Smith and Collins (1987) compared attitudes of 4-H members and dropouts toward competition and found dropout students had a statistically significantly more positive attitude toward competition, specifically direct competition. The study found both groups had a negative attitude toward competition. The authors concluded competition might not be appropriate for all students, and various recognition systems in 4-H and FFA should be assessed to determine the most effective delivery.

Blakely et al. (1993) assessed the perceived value of FFA contests and awards by students and adult groups such as parents, Advisors, administrators, and state staff. Blakely et al. (1993) found although the primary reason FFA members participated in contests and awards was the enjoyment of winning and greater feelings of self-esteem, all groups regarded cooperation as more important than competition.

Croom et al. (2009) found one of the most important factors for student participation in CDEs was relation to their future career choice. The researchers asked FFA members to rate their agreement with five selected statements related to participation in CDEs. Other statements included leadership development, scholarship awards, travel/fun, and competition. They surveyed 2,145 FFA members and 206 teachers from qualifying teams and individuals at the 2003 National FFA Convention.

Results from teachers differed from students, as teachers reported competition was the most important reason for participation in CDEs. They found even though student participation in the CDE related most to future career choice, more than one-half of the respondents reported plans to seek a career outside of the agricultural industry.

To assess the motivation of students to participate in career development events, Knobloch, et al. (2016) created an instrument and tested it for validation during 12 state level CDE contests in Indiana. The instrument was developed using the expectancy-value theory. In addition to validating the instrument, the study showed self-efficacy was the leading factor that motivated students to participate in CDEs. They found cost and utility value received participants' highest reported level of motivation, indicating that participants view CDEs to be valuable to their future goals and they were willing to invest time and effort towards their goals, supporting Bandura's (1997) Social Cognitive Theory. Further, Knobloch et al. (2016) found that participants were motivated to gain more knowledge and develop career skills. Knobloch et al. (2016) concluded that participants are aware of the purposes of CDEs/LDEs to develop career skills:

> It is likely the purpose and potential benefits of CDEs are clearly understood by students when they make a decision to participate . . . . In addition to coaches, alumni at educational camps and events interact with youth to share the benefits of participating in CDEs, which would inform youth to believe that participation in a CDE would help them in attaining their goals. (p. 24)

Summary of Chapter

This chapter provided a review of literature related to the study's framework,

competition in social sciences and in educational settings, and competitive events in SBAE. Previous reviews of competitive, cooperative, and individual reward structures in social situations and in classrooms have not produced a consensus as to which is most effective (Clifford, 1971; Johnson & Johnson, 1974, 1989; Murayama & Elliot, 2012; Slavin, 1977). In summary, the merits of competition and its relationship to performance are unclear. Murayama and Elliot (2012) summarized their findings from a meta-analysis of competition and performance:

> The take home message from the present research is that at the level of individual psychological processes, competition appears to be neither entirely beneficial nor entirely detrimental to performance. Rather, our work indicates that the competition-performance relation varies as a function of the type of achievement goals pursued. Accordingly, our research highlights the need for a nuanced, integrative approach to this important area of inquiry. (p. 1054)

Competitive events, particularly CDEs/LDEs, continue to hold a prominent position in the National FFA Organization. Literature from agricultural education scholars has rarely been critical of competition. Rather, recent research has focused on CDE benefits, coaching strategies, recruitment, and defining what motivates students to choose to participate (Ball et al., 2016a; Ball et al., 2016b; Curry et al., 2017; Croom et al., 2009; Knobloch et al., 2013; Lancaster et al., 2013; Rayfield et al., 2009; Russell et al., 2009).

CHAPTER III

METHODOLOGY

This study was developed to measure the influence of CDEs/LDEs on students' motivation. A descriptive survey design was employed with the objective to describe the motivation of FFA members after participation in a CDE/LDE and investigate the relationships between participants' performance, participants' perception of their FFA advisors' coaching competency, and participants' self-efficacy.

Population

The target population for this study consisted of all FFA members in Oklahoma (N = 2,427) who registered online for the 2017 Oklahoma State University (OSU) FFA CDE Interscholastic through judgingcard.com. The total number of FFA chapters that registered for the 2017 OSU Interscholastics was 213. The 2017 OSU Interscholastics took place for two days and is considered the state finals CDE/LDE competition for the Oklahoma FFA Association. The OSU Interscholastic event also determines the majority of national qualifying teams and individuals (Oklahoma FFA Interscholastics, 2017). All of the state level events in Oklahoma have open registration with the exception of the following events that have qualifying competitions at the regional and area levels, or a screening process: Public speaking, Parliamentary Procedure, Conduct of Chapter Meetings, Freshman Agriscience Quiz Bowl, Employment Skills, and Agricultural

Education Teaching.

Sampling Technique

Data to determine the population of students was accessed on the Internet through judgingcard.com. The total number of students and their respective schools was also available. However, it was not possible to access the participants' names and contact individuals directly. Therefore, a random sample was taken from the list of all SBAE programs in Oklahoma that registered students for the 2017 OSU Interscholastic event (*N* = 213). Based on Krejcie's and Morgan's (1970) method of determining a representative sample size, 136 SBAE programs were sampled for this study. From the 136 programs in the sample, a total of 1,694 students were registered for the event.

Institutional Review Board

Prior to beginning research with human subjects, this study received approval from the OSU Institutional Review Board (IRB). An application was submitted to the IRB detailing the data collection procedures and steps to protect the rights and privacy of humans involved in the study. An anonymous link feature from Qualtrics© was utilized to protect the privacy of subjects. As this study sought responses from minors, a parent information sheet was developed and included an opt-out section for parents or guardians that chose not to allow their child to participate in the study. Further, a participant information page was displayed to students with information regarding the voluntary nature of their participation. The application was approved on March 12, 2018 (see Appendix A).

Instrumentation

This study followed Dillman's, Smyth's, and Christian's (2014) tailored survey design procedure to gather data via a Qualtrics© Internet questionnaire (see Appendix H). The first section of the questionnaire collected basic demographic information such as sex and grade in school. A block of questions was created for all participants who had not participated in the 2017 OSU FFA Interscholastic related to their interest in CDEs/LDEs and was not analyzed for this study. For participants who responded they participated in the 2017 OSU FFA Interscholastics, adapted instruments from the CIS (Keller, 2006), CCS (Myers et al., 2006), and a self-efficacy instrument (Vargas-Tonsing et al., 2003) were used to collect responses.

Keller's (2006) *Course Interest Survey* (CIS) was modified and utilized to assess motivation resulting from FFA members' experiences in CDE/LDE on a state level. The Keller's (2006) CIS instrument was originally designed to gauge students' perceptions of instruction in a particular course. However, Keller (2006) suggested the instrument may be adapted to different instructional situations. In my study, wording from the instrument such as *this course* or *instructor* was replaced with *CDE* and *advisor* respectively. According to Keller (2006) the CIS instrument is also appropriate for secondary students. The CIS instrument measured four components of motivation: (a) 12 items for attention, (b) 9 items for relevance, (c) 9 items for confidence, and (d) 6 items for satisfaction (Keller, 2006).

Myers, et al. (2006) developed an instrument to assess student athletes' evaluation of their coaches' competency, referred to as the Coaching Competency Scale (CCS). The

CCS is based on a previous instrument developed by Feltz, Chase, Moritz, & Sullivan (1999), known as the Coaching Efficacy Scale (CES), which assessed a coach's own perceived ability to affect athletes' performance. The CES (Feltz et al., 1999) was designed with Bandura's (1997) self-efficacy theory as a frame. Myers et al, (2006) stated, "athletes' evaluations of their coach's competence in domains measured by the CES—instructional technique, motivation, game strategy, and character-building—should be related to athletes' self-perceptions and attitudes, which in turn should be related to athletes' motivation and performance" (p. 113). Although the CCS (Myers et al., 2006) was originally designed for assessing high school and smaller division collegiate athletes' perceptions, the researchers stated the CCS could be utilized in other educational settings.

The modified version of the CCS consisted of 17 items to collect students' perception of their FFA advisor's coaching competency. For the purposes of this study, three of the four major factors of coaching effectiveness were measured: (a) seven items for motivation competence (MC), (b) six items for technique competence (TC), and (c) four items for character-building competence (CBC) (Myers et al., 2006). The fourth component, game strategy competence (GSC), was purposefully excluded in the adapted instrument for this study, as the items were not considered relevant to the nature of FFA CDEs and LDEs. GSC was defined as "athletes' evaluations of their head coach's ability to lead during competition" (p. 113) and included statements such as "recognize opposing team's weaknesses in competition" (p. 121). In the case of all CDEs/LDEs, FFA advisors are not permitted to provide any guidance or coaching *during* the competition. Further,

success in FFA CDEs/LDEs typically is not related to having knowledge of opposing teams or individuals' strengths or exposing their weaknesses.

Instrument Reliability and Validity

According to Privitera (2014), "To obtain face validity, we get a general consensus among our peers that the measure we are using for a variable appears to be valid" (p. 114). Face validity was reviewed by a panel of three in-service FFA advisors and a panel of three agricultural education graduate students and former SBAE teachers as a preliminary evaluation as to whether the items appeared to appropriately measure the constructs they intended to measure (Privitera, 2014).

A pilot test was conducted with 106 high school students at a SBAE program in a suburban school district. The primary objective of the pilot study was to validate the participant self-efficacy scale. Of the 106 students, 21 responded they participated in the 2017 OSU FFA CDE Interscholastic. Those 21 students received questions that included adapted versions of the ARCS Course Interest Survey (Keller, 2006), Coaching Competency Scale (Myers et al., 2006), and a participant self-efficacy instrument (Vargas-Tonsing et al., 2003).

The participant self-efficacy scale for the pilot study consisted of 14 Likert-type items based on the player efficacy scale from Vargas-Tonsing et al., (2003). Vargas-Tonsing et al. (2003) establish *a priori* Cronbach's alpha reliability scores for a 7-item player self-efficacy instrument ($\alpha = .82$). The reliability estimates for the pilot version of the adapted student self-efficacy instrument was ($\alpha = .89$). The seven highest scoring items from the Cronbach's alpha reliability analysis were retained for the study and

included agreement statements such as *I was a success* and *I did poorly* (see Appendix H).

Myers et al. (2006) established *a priori* Cronbach's alpha reliability estimates for the CCS in motivation competency (α = .90), technique competency (α = .85), and character-building competency (α = .82). The reliability estimates for this study included motivation competency (α = .94), technique competency (α = .92), character-building competency (α = .81), and total competency (α = .89). For the CIS, Keller (2006) established *a priori* Cronbach's alpha reliability estimates for attention (α = .84), relevance (α = .84), confidence (α = .81), satisfaction (α = .88), total CIS scale (α = .95). The Cronbach's alpha reliability estimates for this study included attention (α = .71), relevance (α =.84), confidence (α = .59), satisfaction (α =.79), total CIS scale (α = .91). According to Field (2013), a Cronbach's alpha of .7 to .8 is considered to be acceptable for cognitive tests of ability and intelligence. The reliability for the CIS confidence construct scored below the generally accepted value of .7 to .8 (Field, 2013; Kline, 1999). However, for diverse psychological constructs, Field (2013) reports that values as low as .5 can be acceptable for reliability of a construct. As such, a Cronbach's alpha score of .59 was considered acceptable for this study. However, caution should be applied to the reliability of the confidence construct.

Data Collection

This study followed a modified approach to the Dillman et al. (2014) multiple-contact email strategy. An online questionnaire was created and administered through the Qualtrics© anonymous link feature. Teachers from programs included in the sample received an invitation email with a link to the questionnaire, a parent form with opt-out

information, and instructions for participation in the study. The initial email invitation message was sent to teachers from the sample of SBAE programs (n = 136) on March 26, 2018 and included a parent information form with an opt-out section, a URL and quick response (QR) code to access the study. A follow-up email was sent on March 29, 2018 to the entire sample to thank those that had participated and remind all teachers from programs that had not participated to share the opportunity with their students. A third email was sent on April 4th, 2018 to remind those that had not participated about the study and requested their help in sharing the study with their students. A fourth and final email was sent on April 9th, 2018 and the data collection period ended on April 13th, 2018. A total 156 usable responses were collected from 34 SBAE programs, producing a response rate of 9.2%.

Control of Non-Response Error

Non-response bias was addressed by following the recommendations of Miller and Smith (1983), and Lindner, Murphy, and Briers (2001). Early respondents and nonrespondents were compared on primary variables of interest. Nonrespondents were contacted after the data collection period was closed, and 12 additional responses were collected. Lindner et al., (2001) stated if fewer than 20 nonrespondents are collected, their responses could be combined with other late respondents. The 12 nonrespondents were combined with late respondents defined as the 20 responses recorded after the final email was sent on April 9, 2018. A random sample of responses (n =20) were selected from the pool of late and nonrespondents and compared to early respondents (n = 89). An independent samples t-test showed no statistically significant ($p > 0.05$) difference

existed between early and late responders on the variables of interest. Therefore, data from the respondents can be generalized, with caution, to population.

Analysis of Data

At the conclusion of the data collection period, responses were imported from Qualtrics© to Statistical Package for Social Sciences (SPSS) version 23 to analyze all data related to this study. Prior to data analysis, the assumptions of parametric data were considered. Histograms revealed data for the CCS motivation variable to be negatively skewed, suggesting that scores were clustered toward the high end of the scale (Field, 2013).

Descriptive statistics including means, frequencies, percentages, and standard deviations were used to report demographic information, participants' CDE/LDE performance rankings, motivation levels, and ratings of their FFA advisors' coaching competency. An analysis of variance was conducted to compare the levels of motivation and efficacy for each group based on their reported ranking as a team and as an individual in their CDE/LDE event.

Based on recommendations by Field (2013), Pearson correlation coefficients were used to investigate the relationships between three major variables and their constructs—participants' motivation, self-efficacy, and perception of coaching competency of FFA advisors. Pearson's *r* was selected for the correlation analysis as the outcome variables consisted of interval data and the sample size was over 100 (Field, 2013). Creswell (2012) established recommendations for determining the strength of correlations. According to Creswell (2012), *slight* relationships range from .20 to .35, *limited*

relationships range between .35 and .65, *good* relationships range from .66 to .85, and *very strong* relationships range from .86 and above (Creswell, 2012).

CHAPTER IV

THE INFLUENCE OF FFA CAREER AND LEADERSHIP DEVELOPMENT PERFORMANCE ON STUDENT MOTIVATION

Introduction

Career and Leadership Development Events (CDEs/LDEs) have maintained a prominent position in the National FFA Organization throughout the history of the program (Tenney, 1977; Tummons, Simonsen, & Martin, 2017). This series of competitive events has grown to a total of 19 CDEs and seven LDEs (National FFA Organization, 2017). In a national study, Talbert and Balschweid (2006) found seven of ten FFA members had participated in at least one CDE. One of the primary goals of CDEs/LDEs is to motivate students toward agricultural education curriculum and career opportunities (Case & Whitaker, 1998; Mayfield, 1978; National FFA Organization, 2017; Russell, Robinson, & Kelsey, 2009; Vaughn, Kieth, & Lockaby, 1999).

SBAE programs follow a three-component model consisting of classroom and laboratory instruction, FFA, and supervised agricultural experiences (National FFA Organization, 2017; Talbert, et al., 2014). As such, the National FFA Organization is an intra-curricular organization for secondary students grade 7 through 12 that extends beyond the classroom and laboratory but is tied closely to the curriculum (National FFA

Organization, 2016a). The FFA mission states, "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, 2016a, p. 7). FFA has given members the opportunity to apply their knowledge and practice career and life skills while be rewarded and recognized for their outstanding performances (Talbert & Balschweid, 2006).

The National FFA Organization is one of 11 different career and technical student Organizations (CTSO) that teach skills related to specific careers through competitions, internships, service learning, and personal and social development activities (Alfred et al., 2007; United States Department of Education, 2017). Alfred et al., (2007) conducted a large-scale, quasi-experimental study to examine the effects of participation in CTSOs. Four distinct experiences were identified that all CTSOs provided for students, which consisted of leadership, professional development, community service, and competitions. They successfully predicted CTE students who participated in CTSOs will have a statistically significant advantage over those that do not participate, and non-CTE students in a number of achievement variables such as academic motivation, civic engagement, career self-efficacy, and college aspirations. Of the four major CTSO experiences, competition was found to produce the most positive effects (Alfred et al., 2007).

However, research related to the value of career and leadership development events specifically in SBAE have not yielded conclusive results. In order to highlight the benefits of CDEs, Lundry et al. (2015) gauged the perception of SBAE instructors. They identified 25 skills acquired from CDEs that reached a consensus from the panel. The top

skills included teamwork, competition, setting and achieving goals, time management, and self-motivation (Lundry et al., 2015). The value of CDEs/LDEs has also been assessed from the perspective of parents with student involved in 4-H competition. Kieth and Vaughn (1998) found parents of 4-H members had a very positive attitude toward statements related to competitions. Parents in their study reported competitions enhanced their child's personal skills, self-esteem, and motivation toward success.

To assess the views of agricultural youth participants, Smith and Collins (1987) compared attitudes of 4-H members and 4-H dropouts in regard to competition and found dropout students had a significantly higher positive attitude toward competition. However, they found that both groups had a negative attitude toward competition overall. They concluded competition might not be appropriate for all students, and various recognition systems in 4-H and FFA should be assessed to determine the most effective delivery.

Blakely et al. (1993) investigated the perceived value of FFA contests and awards by students and adult groups such as parents, advisors, administrators, and state staff. They found although the primary reason FFA members participated in contests and awards was the enjoyment of winning and greater feelings of self-esteem, all groups regarded cooperation as more important than competition.

Croom et al. (2009) found one of the most important reasons students participate in CDEs was that the competition related to their future career choice. They asked FFA members to rate their agreement with five selected statements related to participation in CDEs. Other statements in their study included leadership development, scholarship

awards, travel/fun, and competition. They surveyed a total of 2,145 FFA members and 206 teachers from qualifying teams and individuals at the 2003 National FFA Convention. The results from teacher surveys differed from the students, as teachers reported that competition was the most important reason for participation in career development events. Croom et al. (2009) found even though student participation in the CDE related most to future career choice, more than half of the respondents reported plans to seek a career outside of the agricultural industry.

To assess the motivation of students to participate in career development events, Knobloch, et al. (2016) created an instrument and tested it for validation during 12 state level CDE contests in Indiana. The instrument was developed using the expectancy-value theory. In addition to validating the instrument, the study showed self-efficacy was the leading factor that motivated students to participate in CDEs. They found cost and utility value received participants' highest reported level of motivation, indicating that participants view CDEs to be valuable to their future goals and they were willing to invest time and effort towards their goals, supporting Bandura's (1997) Social Cognitive Theory. Further, Knobloch et al. (2016) found that participants were motivated to gain more knowledge and develop career skills. Knobloch et al. (2016) concluded that participants are aware of the purposes of CDEs/LDEs to develop career skills:

> It is likely the purpose and potential benefits of CDEs are clearly understood by students when they make a decision to participate . . . . In addition to coaches, alumni at educational camps and events interact with youth to share the benefits of participating in CDEs, which would inform youth to believe that participation in a CDE would help them in attaining their goals. (p. 24)

Theoretical Framework

One of the objectives of this study is to determine how winning and losing performances can affect the motivation of high school students toward their CDE/LDE. Expectancy Value Theory (EVT) was used to describe this phenomenon (Atkinson, 1957; Eccles et al., 1983; Wigfield & Eccles, 2000). According to Wigfield and Eccles (2000), "Theorists in this tradition argue that individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity" (p. 68). John Atkinson (1957) developed the Expectancy-Value Theory (EVT) of achievement motivation to explain how the motive to approach success and avoid failure affect behavior in an achievement situation. EVT proposed the best stimulus for achievement behavior is a combination of strong hope for success and a low fear of failure (Schunk, 2012).

Wigfield and Eccles (2002) developed a contemporary model of achievement motivation and stated achievement-related behaviors such as persistence, choice, and performance are determined by expectations of success and subjective task value. According to the original model from Eccles et al. (1983), subjective task value contains four major components: attainment value, intrinsic value, utility value, and cost. Attainment value is the importance one places on doing well in a given task (Wigfield, 1994). *Intrinsic value* described the internal enjoyment or satisfaction from participation in a task (Wigfield, 1994). *Utility value* is also known as the usefulness of the task to one's future goals or aspirations (Wigfield, 1994). *Cost* is defined as what must be given up by an individual to accomplish the task, along with the expected effort required from the task (Wigfield, 1994).

Conceptual Frameworks

Three different concepts shaped this study's investigation into participant motivation, self-efficacy, and coaching competency. The following sections described the factors that explain CDE/LDE participants' behavior following participation in a competitive event.

To examine students' motivation to learn by experiencing a particular course or learning condition, Keller (1987a) developed the ARCS Model of motivational design (Keller, 1979; 1984; 1987a; 1987b; 1987c). Keller (1987) stated, "the ARCS Model is a method for improving the motivational appeal of instructional materials" (p. 2). Keller (1979) defined motivation as "that which accounts for the arousal, direction, and sustenance of behavior" (p. 27). The ARCS model is grounded in Expectancy-Value Theory (Atkinson, 1957; Eccles, et al., 1983; Lewin, 1938; Tolman, 1932). Within the ARCS model (Keller, 1987c), four factors initiate and sustain motivation toward learning. The first component, attention, is considered a prerequisite for learning, gaining and sustaining attention is the first condition of motiving students to learn (Keller, 1987a). The second component, relevance, involves instruction that meets the needs of students' personal and professional goals. Although proponents of a classical education may suggest learning should not be driven by such outcomes, Keller (1987a) suggested the instructional approach also can bring about relevance to students, rather than being limited exclusively to content. According to Keller (1987a), "people high in 'need for achievement' enjoy the opportunity to set moderately challenging goals, and to take personal responsibility for achieving them" (p. 3). The third component, confidence, can affect how a student approaches and endures through challenging tasks and is able to

achieve success (Keller, 1987a). The final component, satisfaction, includes structures that reinforce the positive feelings of accomplishment through rewards with the intent of stimulating intrinsic motivation

A teacher's sense of self-efficacy, or their belief in their ability to affect student performance, can have an impact on their overall effectiveness (Ashton, 1984; Gibson, & Demo, 1984; Vargas-Tonsing, Warners, & Feltz, 2003). More specifically, coaching efficacy is defined as "the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes" (Feltz, Chase, Moritz, & Sullivan, 1999, p. 765). However, Smoll and Smith (1989) proposed, "the ultimate effects of coaching behaviors are mediated by the meaning that players attribute to them" (p. 1527). As such, research has investigated athletes' evaluations of their coach's competency based in a number of areas of coaching efficacy (Myers, Feltz, Maier, Wolfe, & Reckase, 2006; Myers, Chase, Beauchamp, & Jackson, 2010). Evidence from previous coaching effectiveness research suggested coaching competency can influence and even predict athlete satisfaction, performance, and motivation (Horn, 2002; Myers et al., 2006, 2010). The constructs of coaching efficacy (Myers et al., 2006) consist of four subscales: motivation competency, game strategy competency, technique competency, and character-building competency (Myers et al., 2006). Motivation competence refers to the perceived ability of the coach to influence players' psychological state and skills (Feltz et al., 1999; Myers et al., 2006). Game strategy refers to the competence of coaches during competition, and technique competency describes the coach's ability to instruct and correct problems (Feltz et al., 1999; Myers et al., 2006). Finally, character-building competency refers to a coach's influence in players' personal development and positive

approach to their sport (Feltz et al., 1999; Myers et al., 2006).

Bandura (1997, 1977) described self-efficacy as an individual's belief in his or her ability to influence events that affect his or her life and to perform specific tasks. According to Bandura (1977), self-efficacy expectations are derived from four major sources: (a) mastery experience, (b) vicarious experience, (c) verbal persuasion, and (d) emotional arousal. Vargas-Tonsing, Warners, and Feltz (2003) asserted these sources are also fundamental to instruction in both coaching and teaching. Vargas-Tonsing et al., (2003) conducted a study to examine the relationship between coaching efficacy and player and team efficacy in volleyball. Coaching efficacy was measured using the scale developed by Feltz et al. (1999). Vargas-Tonsing et al., (2003) also developed and validated a 7-item scale for player self-efficacy and a 10-item scale for team efficacy. Vargas-Tonsing et al., (2003) concluded coaching efficacy was a significant predictor of team efficacy; specifically a coach's sense of self-efficacy can influence the confidence of the players on his or her team.

Purpose and Objectives

Along with developing college and career readiness skills in FFA members, one of the primary purposes of CDEs/LDEs has been to motivate students toward agricultural education curriculum (Carter, 1978; Gadda, 1978; Gray, 1958; Mayfield, 1978; Russell et al., 2009). Case and Whitaker (1998) stated, "many students come to FFA in need of recognition; they need someone to believe in them, to motivate them. It is their involvement and accomplishments in FFA that gives them self-worth and self-confidence." (pp. 12-13). However, literature providing evidence of the motivational effects of participation in CDEs/LDEs has been limited. Almost 20 years ago, an

anonymous author under the pseudonym, "a Caring Critic," wrote in *The Agricultural Education Magazine,* "We assert that the FFA [Future Farmers of America] develops premier leadership, personal growth, and career success. But does it really? Just because we say it does, doesn't necessarily mean it really does" (p. 27). The primary purpose of this study was to examine the motivational influence of participation in a CDE/LDE for students in SBAE.

This study was framed by four research questions:

1. What are the demographic characteristics of participants in the 2017 OSU CDE/LDE Interscholastic?
2. What are participants' career interests related to agriculture and their respective CDE/LDE?
3. How do students define success and failure from their participation in a CDE/LDE?
4. Are there statistically significant differences in motivation between groups based on team and individual performance?

Methodology

The target population for this study consisted of all FFA members in Oklahoma (N = 2,427) who registered online for the 2017 Oklahoma State University (OSU) FFA CDE Interscholastic through judgingcard.com. The OSU Interscholastics events are the state finals for most CDEs/LDEs; however, most events have open registration to all FFA chapters in the state that wish to participate. Data to determine the population of students was accessed on the Internet through judgingcard.com, a web-based service used to register and score FFA CDEs and LDEs. The total number of students and their

respective schools also was available; however, it was not possible to access participants' names or contact individuals directly. Therefore, a random cluster sample with SBAE programs as a primary sampling unit was taken from the list of all SBAE programs in Oklahoma that registered students for the 2017 OSU Interscholastic event ($N = 213$). Based on Krejcie's and Morgan's (1970) method of determining a representative sample size, 136 SBAE programs were sampled for this study. Of the 136 programs in the sample, a total of 1,694 students were registered for the event.

This study followed Dillman's, Smyth's, and Christian's (2014) tailored survey design procedure to gather data via a Qualtrics© Internet questionnaire (see Appendix H). The questionnaire in this study included adapted instruments from the CIS (Keller, 2006), which included 34 items, and a participant self-efficacy instrument (Vargas-Tonsing, Warners, & Feltz, 2003). The CIS instrument measured four components of motivation: (a) 12 items for attention, (b) nine items for relevance, (c) nine items for confidence, and (d) six items for satisfaction (Keller, 2006).

A pilot test was conducted with 106 high school students at a SBAE program in a suburban school district. Of the 106 students, 21 responded they did not participate in the 2017 OSU FFA CDE Interscholastics. Those 21 students received questions that included adapted versions of the ARCS Course Interest Survey (Keller, 2006), Coaching Competency Scale (Myers, et al., 2006), and a participant self-efficacy instrument (Vargas-Tonsing et al., 2003).

For the CIS, Keller (2006) established *a priori* Cronbach's alpha reliability estimates for attention ($\alpha = .84$), relevance ($\alpha = .84$), confidence ($\alpha = .81$), satisfaction ($\alpha = .88$), total CIS scale ($\alpha = .95$). The Cronbach's alpha reliability estimates for this study

were: attention (α = .71), relevance (α =.85), confidence (α = .59), satisfaction (α =.79), total CIS scale (α = .91). The reliability for the CIS confidence construct scored below the generally accepted value of .7 to .8 (Field, 2013; Kline, 1999). However, for diverse psychological constructs, Field (2013) reports that values as low as .5 can be acceptable for reliability of a construct. As such, a Cronbach's alpha score of .59 was considered acceptable for this study. However, caution should be applied to the reliability of the confidence construct.

This study followed a modified approach to the Dillman et al. (2014) multiple-contact email strategy. The initial email invitation message was sent to teachers from the sample of SBAE programs (n = 136) on March 26, 2018 and included a parent information form with an opt-out section, a URL and quick response (QR) code to access the study. A follow-up email was sent on March 29, 2018 to the entire sample to thank those who had participated and remind all teachers from programs who had not participated to share the opportunity with their students. A third email was sent on April 4, 2018 to remind those who had not participated about the study and requested their help in sharing the study with their students. A fourth and final email was sent on April 9, 2018 and the data collection period ended on April 13, 2018. A total 156 usable responses were collected from 34 SBAE programs, yielding a response rate of 9.2%.

Non-response bias was addressed by following recommendations of Miller and Smith (1983), and Lindner, Murphy, and Briers (2001). A comparison was made between early respondents and nonrespondents on the primary variables of interest. Nonrespondents were contacted after the data collection period was closed, and 12 additional responses were collected. Lindner et al. (2001) stated if fewer than 20

nonrespondents are collected, their responses could be combined with other late respondents. The 12 nonrespondents were combined with late respondents defined as the wave of 20 responses recorded after the final email was sent on April 9, 2018. A random sample of responses (n =20) were selected from the pool of late and nonrespondents and compared to early respondents (n = 89). An independent samples t-test showed no statistically significant ($p > 0.05$) differences between early and late responders on the variables of interest.

Findings

The following section provides a summary of the findings for each of the four research questions.

Findings for Research Question 1

The first research question sought to describe demographic characteristics of the participants at the 2017 OSU CDE/LDE Interscholastic. Table 2 describes the sex and grade in school of respondents that reported to have participated in the 2017 OSU FFA Interscholastic event.

Table 2

Characteristics of FFA members that participated in 2017 OSU FFA CDE/LDE Interscholastic

Characteristic	*f*	*%*
Sex (n = 156)		
Female	101	64.7
Male	54	34.6
No answer	1	0.6

Characteristic	*f*	%
Grade (*n* = 156)		
9th Grade	14	9.0
10th Grade	32	20.5
11th Grade	46	29.5
12th Grade	62	39.7
Post-Secondary	2	1.3

Almost two-thirds (*f* = 101) of respondents were female, and almost 70% (*f* = 108) were high school juniors or seniors. Two respondents (1.3%) were post-secondary students.

Respondents reported participation in a total of 26 different CDEs/LDEs (see Table 3). Five events reported were not national CDEs/LDEs. Agricultural Education, Animal Science Quiz Bowl, Entomology, Freshman Agriscience Quiz Bowl, and Soil and Water Conservation are state-wide events, but do not advance to complete at the National FFA Convention. Livestock Evaluation was the most frequently reported CDE with 10.9% (*f* = 17) of all responses, followed by Veterinary Science (10.3%; *f* = 16), and Prepared Public Speaking (9.0%; *f* = 14). No more than two respondents had participated in Agricultural Education, Agricultural Sales, Agronomy, Entomology, Forestry, Milk Quality and Products, and Poultry Evaluation.

Table 3

Frequency of Respondents' CDE/LDE Participation at the 2017 OSU Interscholastic

CDE/LDE Name	*f*	*%*
Agricultural Communications	5	3.2
Agricultural Education	2	1.3
Agricultural Technology and Mechanical Systems	6	3.8
Agricultural Sales	2	1.3
Agronomy	2	1.3
Animal Science Quiz Bowl	6	3.8
Conduct of Chapter Meetings	6	3.8
Dairy Cattle Evaluation	4	2.6
Entomology	2	1.3
Farm and Agribusiness Management	11	7.1
Floriculture	5	3.2
Food Science and Technology	3	1.9
Forestry	1	0.6
Freshman Agriscience Quiz Bowl	5	3.2
Horse Evaluation	4	2.6
Land Judging	10	6.4
Livestock Evaluation	17	10.9
Marketing Plan	3	1.9
Meats Evaluation	4	2.6
Milk Quality and Products	2	1.3
Nursery/Landscape	9	5.8
Parliamentary Procedure	5	3.2
Poultry Evaluation	2	1.3
Prepared Public Speaking	14	9.0
Soil and Water Conservation	3	1.9
Veterinary Science	16	10.3
No Answer	7	4.5
Total	156	100.0

Findings for Research Question 2

The second research question sought to describe CDE/LDE participants' career interests related to agriculture and their respective CDE/LDE. Table 4 shows the frequency of responses to questions related to CDE/LDE participants' career interests.

Table 4

Description of FFA Members' Career Interests

	f	%
Are you interested in a career within the agriculture industry? (*n* = 149)		
Definitely yes	52	33.3
Probably yes	38	24.4
Might or might not	41	26.3
Probably not	17	10.9
Definitely not	1	0.6
Are you interested in a career related to your CDE/LDE? (*n* = 149)		
Definitely yes	26	16.7
Probably yes	27	17.3
Might or might not	56	35.9
Probably not	34	21.8
Definitely not	6	3.8

The majority of respondents (*f* = 90; 57.7%) reported either *definitely yes* or *probably yes* to the question, "Are you interested in a career within the agriculture industry?" Only one respondent (0.6%) was *definitely not* interested in a career in the

agricultural industry. For the question, "Are you interested in a career related to your CDE/LDE?" the most common response was *might or might not* (35.9%). The majority of respondents (*f* = 92; 57.7%) reported either he or she was *might or might not*, or are *probably not* interested in a career related to their CDE/LDE.

Finding for Research Question 3

The third research question examined how students defined success and failure in a CDE/LDE. A seven-item scale was developed to assess participants' self-efficacy (Vargas-Tonsing et al., 2003) based on their performance in a 2017 OSU Interscholastics event. Positive items included statements such as *I was a success*, and negative items included statements such as *I did poorly*. Table 5 displays descriptive statistics for individuals according to their range in ranking in an event held at the OSU Interscholastics. Individuals who placed 1st-5th reported the highest mean score of 3.33 (*SD* = 1.23). Individuals who reported ranking 15th-20th also reported the lowest mean efficacy score of 3.27 (*SD* = .94).

Table 5

Participants' Efficacy based on Individual Performance

Individual Ranking	*f*	*M*	*SD*
1st-5th	17	3.33	1.23
6th-10th	19	3.30	.67
11th-15th	15	3.26	.90
15th-20th	51	3.24	.89
Total	102	3.27	.94

Note. Scale: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4. = Somewhat agree, 5 = Strongly agree

Table 6 displays participants' efficacy scores based on their CDE/LDE team's performance. Respondents on teams that placed 1st-5th reported the highest mean efficacy score of 3.37 (*SD* = .33). Respondents on teams that placed 11th-15th reported the lowest mean efficacy score of 3.12 (*SD* = .33).

Table 6

Participants' Efficacy based on Team Performance

Team Ranking	*f*	*M*	*SD*
1st-5th	38	3.37	.33
6th-10th	22	3.33	.29
11th-15th	17	3.12	.55
15th-20th	29	3.20	.33
Total	106	3.28	.37

Note. Scale: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4. = Somewhat Agree, 5 = Strongly agree.

An analysis of variance (ANOVA) revealed no significant differences between groups based on individual CDE/LDE ranking, $F(19, 82) = .862$, $p = .62$. Also, no statistically significant difference was found in reported efficacy scores across team rankings $F(18, 87) = 1.26$, $p = .23$.

Mean scores were grouped into categories based on a range of team and individual rankings: 1st-5th, 6th-10th, 11th-15th, and 16th-20th. An analysis of variance (ANOVA) revealed no statistically significant differences between categories based on the range of individual rankings $F(3, 98) = 0.27$, $p = .84$. No statistically significant

differences were found in reported efficacy scores across team CDE/LDE ranking, $F(3, 102) = 2.41$, $p = .07$.

An independent samples *t*-test was conducted to compare reported efficacy levels of teams that placed in the top five and teams that did not place in the top five. A statistically significant difference was found between teams that placed in the top five in their CDE/LDE ($M = 2.53$, $SD = 1.04$) and teams that placed outside the top five ($M = 2.05$, $SD = 1.04$) (see Table 7).

Table 7

Comparison of Efficacy Between Teams Inside/Outside Top 5 Ranking

Source of Variance	*n*	*M*	*SD*	*t*	*p*
Top 5	29	2.53	1.04	2.20	.03*
Not in Top 5	77	2.05	.84		

*$p < .05$

An independent samples *t*-test was conducted to compare the reported efficacy levels of individuals that placed in the top five in their respective CDE/LDE, and individuals that did not place in the top five. No statistically significant difference was found between individuals that placed in the top five in their CDE/LDE ($M = 1.93$, $SD = 1.23$) and individuals that placed outside the top five ($M = 2.23$, $SD = 0.86$) (see Table 8).

Table 8

Comparison of Efficacy Between Individuals Inside/Outside Top 5 Ranking

Source of Variance	*n*	*M*	*SD*	*t*	*p*
Top 5	17	1.93	1.23	-.950	.35
Not in Top 5	85	2.23	0.86		

Findings for Research Question 4

The modified CIS scale was utilized to find out how motivated FFA members were by their participation in a CDE/LDE. Table 9 displays mean group scores for the ARCS (Keller, 2006) motivational variables based on range of individual rankings. The highest mean ARCS score, 4.47 (*SD* = .44), was from the relevance construct (Keller, 2006). Individuals who placed 1st-5th also reported the highest mean score of all ranking groups, *M* = 3.60 (*SD* = .34). The attention construct received the lowest mean score from all participants, *M* = 3.70 (*SD* = .68).

Table 9

ARCS Motivation Scores by Individual Ranking Groups

	1st-5th *n* = 17		6th-10th *n* = 20		11th-15th *n* = 15		16th-20th *n* = 51		Total *n* = 103	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Attention	4.11	.48	3.65	.57	3.64	.76	3.60	.71	3.70	.68
Relevance	4.47	.44	4.20	.56	4.11	.80	4.12	.70	4.19	.66
Confidence	4.15	.34	3.84	.58	3.86	.52	3.95	.62	3.95	.56
Satisfaction	4.22	.49	3.71	.77	4.01	.75	3.91	.67	3.94	.69
Overall	3.60	.34	3.34	.32	3.34	.58	3.37	.44	3.40	.43

Note. Scale: 1= Not true, 2 = Slightly true, 3 = Moderately true, 4 = Mostly true, 5 = Very true

An analysis of variance was conducted to examine he differences in motivation between groups based on their individual ranking category. No statistically significant difference was found in reported ARCS motivation scores across individual rankings for

the ARCS construct attention $F(3, 99) = 1.16$, $p = .06$, relevance $F(3, 99) = 1.30$, $p = .27$, confidence $F(3, 99) = 1.07$, $p = .36$, satisfaction $F(3, 99) = 1.81$, $p = .15$, and overall $F(3, 99) = 1.44$, $p = .23$.

Table 10 displays mean group scores for the ARCS (Keller, 2006) motivational variables based on range of team rankings. The highest mean ARCS score, 4.17 (SD = .66), was from the relevance construct (Keller, 2006). Respondents on teams that placed 1st-5th also reported the highest mean score of all ranking groups, M = 3.49 (SD = .36). The attention construct received the lowest mean score from all participants, M = 3.70 (SD = .68).

Table 10

ARCS Motivation Scores by Team Ranking Groups

	1st-5th n =40		6th-10th n = 22		11th-15th n = 17		16th-20th n = 29		Total n = 108	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Attention	3.84	.54	3.57	.65	3.66	.68	3.62	.81	3.70	.68
Relevance	4.35	.54	4.11	.63	4.20	.64	3.96	.78	4.17	.66
Confidence	4.00	.53	3.87	.67	3.96	.43	3.86	.60	3.93	.56
Satisfaction	4.14	.62	3.73	.76	3.90	.62	3.83	.70	3.93	.68
Overall	3.49	.36	3.33	.35	3.39	.49	3.27	.51	3.38	.43

Note. Scale: 1 = Not true, 2 = Slightly true, 3 = Moderately true, 4 = Mostly true, 5 = Very true

An analysis of variance was conducted to examine the differences in motivation between groups based on their team ranking category. No statistically significant

difference was found in reported ARCS motivation scores across team rankings for the ARCS construct attention $F(3, 104) = .989$, $p = .40$, relevance $F(3, 104) = 2.10$, $p = .10$, confidence $F(3, 104) = .444$, $p = .72$, satisfaction $F(3, 104) = 2.12$, $p = .10$, and overall $F(3, 104) = 1.59$, $p = .19$.

Conclusions

Based on the findings of the study, acknowledging the limitations of the sample, six conclusions were made. Each of the conclusions listed are discussed further in the following section.

1. The typical participant in 2017 OSU Interscholastic events was a female, upper-level high school student.
2. CDEs related to livestock are the most popular CDEs in Oklahoma.
3. CDE/LDE participants are interested in a career related to agriculture, but not necessarily a career specifically related to the CDE in which they competed in 2017.
4. CDE/LDE participants are not concerned with individual or team ranking as a measure of success or failure.
5. CDE/LDE participants on teams that placed in the top five feel more efficacious than those on teams not in the top five.
6. Individual and team performance does not influence participants' motivation.

Discussion and Implications

The following section summarizes the study and presents discussion and implications of the conclusions.

Conclusion 1: The typical participant in 2017 OSU Interscholastic events was a female, upper-level high school student.

This finding is in agreement with other recent literature finding female FFA members have greater of involvement in CDEs/LDEs and other FFA programs (Croom, Moore, & Armbrister, 2009; Curry et al., 2017, Knobloch et al., 2016). The limited number of middle school SBAE programs in Oklahoma could explain the low percentage of responses from ninth grade students with CDE/LDE experience. However, less than 30% of participants were from grades nine and ten. Although a greater percentage of CDE/LDE participants may be older participants, younger FFA members could benefit from personal growth and career exploration opportunities provided by CDEs/LDEs. Bandura's (1997) theory of self-efficacy indicates that efficacy is more impressionable early in learning, thus participation in achievement situations during the first few years of FFA membership may be critical towards development of long-term student efficacy.

Conclusion 2: CDEs related to livestock are the most popular CDEs in Oklahoma.

Livestock Evaluation and Veterinary Science were not only the most frequently reported contests, they were the two contests with the most registered teams in the 2017 OSU Interscholastic (Oklahoma FFA Interscholastics, 2017). Further, Livestock Evaluation received 40% more registrations than the second most populated contest. This conclusion is in agreement with past research that found CDEs related to animal science are traditionally popular (Harris, 2008; Tenney, 1977; Tummons, 2017). However, though Livestock Evaluation is one of the oldest competitions, Veterinary Science has quickly grown in participation since its initiation in 2012 (see Table 1). Of all the CDEs/LDEs offered in Oklahoma, 26 events had at least one participant from the

respondent group (Oklahoma FFA Interscholastics, 2017). This finding also leads to the conclusion FFA members are interested in a variety of CDE/LDEs. The National FFA Organization should consider if current CDE/LDE opportunities are meeting the emerging interests of its growing membership (Croom et al., 2009; Rose et al., 2016).

Conclusion 3: Most CDE/LDE participants are interested in a career related to agriculture, but not necessarily a career specifically related to the CDE in which they competed in 2017.

This conclusion suggests CDEs/LDEs may be effective in motivating students toward careers in agriculture, but the skills and experiences they are acquiring specific to their respective CDEs may not be motivating them toward that specific field. This finding aligns with that of previous studies (Bowen & Doerfert, 1989; Croom et al., 2009; Fox & Cater, 2015; Gamble, 1985; Talbert & Balschweid, 2006).

This conclusion raises a number of questions in regard to the goals and objectives of CDEs/LDEs. Are students given the opportunity to choose the CDE/LDE that relates to their interests and goals? Edwards and Booth (2001) suggested probing for students' interest early in the approach to preparing for CDEs. Are CDEs/LDEs more effective tools for bringing about career awareness, rather than preparation? Gamble (1985) found only 37 percent of national FFA contest participants reported an interest in a career related to their event. According to Gamble, "If the purpose of the vocational agriculture program is to prepare students for employment, then the students that are participating at the national level do not reflect that mission. Do participants' view CDE/LDEs as opportunities for developing skills that relate to a career, or as fun, competitive activities? Based on their finding, Croom et al. (2009) questioned whether the mission of

agricultural education had shifted more toward agricultural literacy than career development? It is important to note that responses included students that participated in LDEs, which do not necessarily align with a specific career. Lundry et al. (2015) found that SBAE teachers perceived CDEs "expose students to specific agricultural careers" (p. 50), but it appears students do not share the same perception. Do experiences from CDEs/LDEs discourage participants' motivation toward a specific career?

Conclusion 4: CDE/LDE participants are not concerned with individual or team ranking as a measure of success or failure.

There was not a significant difference in the efficacy of students across performance ranking groups to define a clear difference in winning or losing. Regardless of individual or team ranking, participants reported moderate levels of efficacy. The rankings systems in CDE/LDEs at the state level did not strongly affect whether a participant considered their individual or team performance as a success or failure. Although it is not surprising to see high efficacy responses from teams and individuals that ranked first through fifth, it was surprising to see similar responses from low-ranking participants. Reeve and Deci (1996) found that winning or losing without receiving positive or negative information about performance will not affect participants' intrinsic motivation. Are CDE/LDE participants that perform poorly not made fully aware of deficient skills and knowledge? Do low performing participants receive negative feedback?

Self-efficacy refers to an individual's belief in his or her ability to perform a task; it does not refer to their actual knowledge or ability to perform a task (Bandura, 1997). Respondents' in this study, including the lower ranking participants, believe in their

ability to accomplish the tasks associated with their respective CDE/LDE. In many CDEs/LDEs, the only performance feedback that participants received was their team or individual ranking. Participants may have received efficacy from successfully completing the requirements of their state-wide event. From the perspectives of Bandura (1977, 1997) self-efficacy can influence choice of activities. Respondents in this study elected to participate in the achievement setting of a state-wide CDE/LDE, indicating a judgement of self-efficacy for all participants (Schunk, 2012).

Conclusion 5: CDE/LDE participants on teams that placed in the top five feel more efficacious than those on teams not in the top five.

The Oklahoma FFA Association provides recognition for teams in the top five ranking with public recognition such as online results, press releases, sweepstakes award points, scholarships and trophies. These forms of recognition may be effective as external sources of efficacy (Bandura, 1997). Although numerical ranking may not strongly affect participant's efficacy, the existence of external rewards and recognition for a successful team may be effective in elevating participants' efficacy. Croom et al. (2009) also found that external rewards can be effective motivators, as National CDE finalists reported scholarships, plaques, and trophies as preferred forms of recognition. Limited external rewards may also provide participants efficacy in the form of vicarious experiences (Bandura, 1977, 1997). Vicarious experiences, such as awards and recognition, provide CDE/LDE participants with information about other participants and a standard for social comparison (Bandura, 1997).

Conclusion 6: Individual and team performance does not influence participants' motivation.

Although teams and individuals that ranked higher reported higher levels of motivation, there were no significant differences in motivation for both team and individual placing groups. The ARCS relevance construct received the highest mean score, suggesting that students believed that the learning outcomes from their participation in their CDE/LDE will be useful and important to them (Keller, 2006). This finding is congruent with previous studies that found CDE participants deem CDEs/LDEs to be valuable for their future career and education goals (Croom, et al., 2009; Knobloch et al., 2016; Russell et al., 2009).

All ranking groups reported to be motivated by their CDE/LDE. The encouraging aspect of this finding is that pressure from interpersonal competition does not appear to be decreasing participants' intrinsic motivation (Deci et al., 1999; Reeve & Deci, 1996). This finding is also a departure from the results of a review of experimental studies of reward effects on intrinsic motivation (Deci et al., 1999). Deci et al. (1999) concluded, "When organizations opt for the use of rewards to control behavior, the rewards are likely to be accompanied by greater surveillance, evaluation, and competition, all of which have also been found to undermine intrinsic motivation" (p. 659). The high scores across all ARCS model variables indicates that CDEs/LDEs are effective at motivating students to learn (Keller, 1987a, 1987b).

From the perspectives of EVT (Atkinson, 1957; Eccles et al., 1983; Wigfield & Eccles, 2000) participants in the OSU Interscholastic have a combination of a strong hope for success and a low fear of failure. However, participants did not define success and

failure by their rankings. EVT (Atkinson, 1957) also suggests individuals are motivated by an attainable, attractive outcome. For lower ranking participants in the OSU Interscholastic event, that outcome is not related to interpersonal competition. These findings support previous research studies that found CDE participants value other outcomes such as working with a team, learning a specific skill, and leadership development over competition or trying win (Blakely et al., 1993; Croom & Flowers, 2001; Croom et al., 2009; Russell et al., 2009). In many cases, CDE/LDE participants and stakeholders have reported that the primary benefits associated with the competitive events, as well as FFA membership, relate to personal development such as self-esteem, confidence, leadership and social interaction (Croom & Flowers, 2001; Gamble, 1985; Hoover, Scholl, Dunigan, & Mamontova, 2007; Kieth & Vaughn, 1998; Lundry et al., 2014; Rose et al., 2016; Vaughn et al., 1999; Weber & McCullers, 1986). Croom and Flowers (2001) concluded "students tend to join and participate in the FFA based upon the organization's ability to meet a student's need for a sense of belonging" (p. 35). The term *career development event* may then be interpreted to relate to the development of general "college and career readiness" (National FFA Organization, 2017, p. 66) and other transferable career skills, rather than career-specific technical skills.

From these conclusions, a number of implications arise. Are students, particularly FFA members, less competitive than previous generations? Has the criticism applied to competitive goal structures (Deci et al., 1981; Johnson & Johnson, 1974, 1989) directed instructional approaches away from an emphasis on competition? Are students motivated more by developing mastery in their CDE/LDE, rather than beating opponents? Rather than rewarding individual or team ranking, would a rating system that recognizes

CDE/LDE participants' level of competence encourage a greater amount of mastery? Reeve and Deci (1996) found that receiving positive information about one's performance is the most critical factor for developing intrinsic motivation. A numerical ranking does not clearly inform participants of their skill in a CDE/LDE.

Recommendations for Research

Due to low response rate, the conclusions of this study should be approached with caution toward generalizability to the population. However, this study provides some important questions for further research.

1. If replicated, what results would this study produce in other states? Some other state associations may have a different reward system than Oklahoma, which may produce different levels of efficacy and motivation for CDE/LDE participants.
2. Are there differences in motivation and efficacy between groups of students based on grade or years of CDE/LDE experience?
3. Is there room for more CDEs/LDEs? Researchers should gauge the interests of students in SBAE as well as their teachers toward new events that address growing use of technology and an increasingly diverse FFA membership.
4. What are the perceptions of agricultural industry employers of CDEs
5. Events categorized as LDEs do not directly align with a career pathway. What are the differences in the career interests and motivations between CDE participants and LDE participants?
6. What is the effect of a mastery-based reward system, rather than ranking system, on CDE/LDE participants' motivation and efficacy?

7. How do generations of former FFA members compare to the current generation of FFA members in terms of competitiveness?
8. Does efficacy and motivation vary across different CDEs/LDEs? A number of factors may affect the motivation of participants in different events, such as number of contestants, availability of college scholarships, rewards, and competitive traditions.

Recommendations for Practice

Based on the findings of the study, the following recommendations were made for practitioners in SBAE:

1. Administrators of FFA CDEs/LDEs should evaluate if students' career interests are being addressed by the events. While it is promising that the majority of CDE/LDE participants are interested in a career in agriculture, SBAE instructors should strive to offer students opportunities that relate to their career interests and future goals. Administers of local and state CDE/LDE events should follow the lead of the National FFA Organization and periodically evaluate the merits of each of the various CDEs/LDEs.
2. FFA advisors should purposefully connect the elements of CDEs/LDEs to career opportunities in agriculture (Edwards & Booth, 2001; Lundry et al., 2015). The authentic assessment and real-world experiences provided by CDE/LDE participation is designed to connect students' performance into career success (Connors & Mundt, 2001; Kelsey, 2001).
3. Administrators of CDEs/LDEs should consider an awards system that recognizes participants by their achieved level of proficiency or competence. The OSU FFA

Interscholastic recognizes individuals and teams by a ranking award system, in which only top-ranking teams receive recognition. The National FFA Organization recognizes students with a gold, silver, or bronze rating. However, that rating is determined by team or individual ranking in the event (National FFA Organization, 2016). The original award system utilized by the National FFA contests provided a rating, rather than a numerical ranking, emphasizing skill development and mastery over competition and striving to win (Bunger, 1948). When an individual and team ranking is used to recognize participants, interpersonal competition can take priority over instruction (Bunger, 1948; Gartin, 1985; Gray, 1958; Johnson, 1948; Shry, 1989). Further, all contests should provide teachers and students with detailed performance data related to participants' level of mastery.

4. As a part of their coaching role, SBAE instructors should provide clear standards and frequent evaluations of student performance using CDEs/LDEs as motivational and instructional tools toward agricultural education curriculum (Case & Whitaker, 1998; Mayfield, 1978; National FFA Organization, 2017; Russell, Robinson, & Kelsey, 2009; Schumann, 1977; Vaughn, et al., 1999).
5. SBAE practitioners should explore other non-competitive approaches in promoting career preparation and awareness. If students are more motivated by opportunities to develop mastery, experience social interaction, and working cooperatively towards a goal, more workshops, industry tours, internships, and job shadowing opportunities should be emphasized.

CHAPTER V

INFLUENCE OF COACHES' COMPETENCY ON STUDENT MOTIVATION IN AN FFA CAREER AND LEADERSHIP DEVELOPMENT EVENT

Introduction

Teachers in school-based agricultural education (SBAE) influence the recruitment of students toward participation in FFA career and leadership development events (CDEs/LDEs), and ultimately toward their success in the competitive events through various coaching strategies (Ball, Bowling, & Bird, 2016a; Ball, Bowling, & Sharpless, 2016b; Knobloch, Brady, Orvis, & Carroll, 2016; Jones, 2013; Rayfield, Fraze, Brashears, & Lawver, 2009; Russell et al., 2009). CDEs/LDEs are an important component of SBAE programs and are of considerable concern for SBAE teachers, and many successful teachers dedicate a large amount of time training and participating in competitions (Ball, et al., 2016; Harris, 2008; Herren, 1984) Croom, Moore, & Armbrister (2005) found the majority of teachers at the national CDE contests reported they integrated the agricultural content related to their CDE into classroom instruction. The majority of teachers also reported to spend one to five hours a week beyond classroom instruction, after school, before school, on weekends, and during holidays preparing and coaching students for their FFA CDE (Croom et al., 2005). Similar to athletic coaches, SBAE teachers have a unique opportunity to coach their students skill

development and personal and team achievements (National FFA Organization, 2017). Russell, Robinson and Kelsey (2009) interviewed agricultural education instructors from Oklahoma who previously trained state winning CDE teams. The purpose of their qualitative study was to identify how successful teachers motivated students to participate in career development events. The researchers interviewed and observed eight different teachers from Oklahoma based on their previous success in numerous CDEs. Six different themes were identified from the study:

> The eight teachers who participated in the study motivate students by a) drawing upon the traditions and successes of the chapter, b) providing opportunities for students to compete, c) promising students that they will gain life skills, d) enabling students to have fun, 5) actively recruiting members who show potential for doing well with CDEs, and 6) making CDEs an integral part of the classroom curriculum. (p. 108)

Russell et al. (2009) concluded students are motivated to participate in CDEs if they consider the activity to be valuable to them. Other research has focused specifically on ways to improve teaching and training CDE content. Ball et al., (2016b) observed coaching behaviors of agricultural education instructors in a mixed methods study with the purpose of describing successful strategies and patterns. The researchers observed teachers in practice and noted specific behaviors using an instrument, and then interviewed each of the teachers. The study revealed practice mechanics, knowledge acquisition, and coach and team development comprised the majority of time spent on CDE team development. From the strategies and patterns observed, Ball et al. (2016b) concluded successful agricultural education instructors play the role of teacher to deliver

CDE content, coach to design CDE practices, and mentor to reinforce and motivate students.

To describe how to motivate CDE teams and the role of competition, Ball et al. (2016a) conducted a case study over the course of 16 weeks that tracked an agricultural education program through the career development event season. The qualitative study was comprised of 46 student interviews, three FFA Advisor interviews, and one administrator interview. Two major themes emerged from the interviews: performance and motivation coaching strategies. The researchers concluded the motivational strategies employed by the instructor were initially extrinsic, but evolved to intrinsic motivation strategies as students gained a deeper understanding of content related to their career development event.

Research applied to FFA CDEs/LDEs in recent years has been primarily concerned with recruitment techniques (Rayfield, Fraze, Brashears, & Lawver, 2009; Russell et al., 2009), training methods of successful teachers and students (Ball, et al., 2016; Ball, Bowling, & Sharpless, 2016b), and assessing why students choose to participate (Curry et al., 2017; Croom et al., 2009; Knobloch, et al., 2013; Lancaster, et al., 2013). Limited research in SBAE has investigated students' perceptions of their FFA advisors CDE/LDE coaching competency, and it influence on student motivation.

Conceptual Frameworks

Three different concepts guided this study to investigate participants' motivation, self-efficacy, and perceptions of their FFA advisors coaching competency.

Coaching Competency

A teacher's sense of self-efficacy, or their belief in their ability to affect student performance, can have an impact on their overall effectiveness (Ashton, 1984; Gibson, & Demo, 1984; Vargas-Tonsing, Warners, & Feltz, 2003). More specifically, coaching efficacy is defined as "the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes" (Feltz, Chase, Moritz, & Sullivan, 1999, p. 765). However, Smoll and Smith (1989) proposed "the ultimate effects of coaching behaviors are mediated by the meaning that players attribute to them" (p. 1527). As such, research has investigated athletes' evaluations of their coach's competency based in a number of areas of coaching efficacy (Myers, Feltz, Maier, Wolfe, & Reckase, 2006; Myers, Chase, Beauchamp, & Jackson, 2010). Evidence from previous coaching effectiveness research suggested coaching competency can influence, and even predict, athlete satisfaction, performance, and motivation (Horn, 2002; Myers et al., 2006, 2010). The constructs of coaching efficacy within the CES, and later the CCS, consist of four subscales: motivation competency, game strategy competency, technique competency, and character-building competency (Myers et al., 2006). Motivation competence refers to the perceived ability of the coach to influence players' psychological state and skills (Feltz et al., 1999; Myers et al., 2006). Game strategy refers to the competence of coaches during competition, and technique competency describes the coach's ability to instruct and correct problems (Feltz et al., 1999; Myers et al., 2006). Finally, character-building competency refers to a coach's influence in players' personal development and positive approach to their sport (Feltz et al., 1999; Myers et al., 2006).

Self-Efficacy

Bandura (1997, 1977) described self-efficacy as an individual's belief in his or her ability to influence events that affect his or her life and to perform specific tasks. According to Bandura (1977), self-efficacy expectations are derived from four major sources: (a) performance accomplishments, (b) vicarious experience, (c) verbal persuasion, and (d) emotional arousal. Vargas-Tonsing et al. (2003) asserted these sources are also fundamental to instruction in both coaching and teaching. Vargas-Tonsing et al. (2003) conducted a study to examine the relationship between coaching efficacy and player and team efficacy in volleyball. Coaching efficacy was measured using the scale developed by Feltz et al. (1999). Vargas-Tonsing et al., (2003) also developed and validated a 7-item scale for player self-efficacy and a 10-item scale for team efficacy. Vargas-Tonsing et al., (2003) concluded coaching efficacy was a statistically significant predictor of team efficacy. They concluded a coach's sense of self-efficacy can influence the confidence of the players on his or her team.

ARCS Model of Motivation

To examine students' motivation to learn by experiencing a particular course or learning condition, Keller (1987a) developed the ARCS Model of motivational design (Keller, 1979, 1984, 1987a, 1987b, 1987c). Keller (1987) stated, "the ARCS Model is a method for improving the motivational appeal of instructional materials" (p. 2). Keller (1979) defined motivation as "that which accounts for the arousal, direction, and sustenance of behavior" (p. 27). The ARCS model is grounded in Expectancy-value Theory (Atkinson, 1957; Eccles et al., 1983; Lewin, 1938; Tolman, 1932). The ARCS model (Keller, 1987c) has four factors that initiate and sustain motivation toward

learning: attention, relevance, confidence, and satisfaction. Attention refers to capturing and maintaining students' interest and curiosity to learn (Keller, 1987b). Relevance describes meeting a learner's personal goals (Keller, 1987a). Confidence may refer to influence instruction has on students' approaches toward challenging tasks and instilling a belief that they will be successful (Keller, 1987a, 1987b). Finally, satisfaction includes the internal and external rewards that reinforce positive feelings of accomplishment (Keller, 1987a).

Purpose & Research Questions

The purpose of this study was to examine the motivational influence of participation in a CDE/LDE for students in SBAE, particularly the influence of FFA advisors' coaching competency.

This study was framed by four research questions:

1. What are students' perceptions of their FFA advisors coaching competency?
2. How do students' perceptions of their advisors' coaching competency influence their motivation toward a CDE/LDE?
3. What is the relationship between FFA members' perception of their advisors' coaching competency and their self-efficacy in a CDE?
4. Do significant differences in FFA members' perception of their advisors' coaching competency exist between groups based on team and individual performance in a CDE?

Methodology

This study employed a descriptive survey design. The target population was all FFA members in Oklahoma (N = 2,427) who registered for the 2017 OSU FFA CDE

Interscholastic through judgingcard.com (Oklahoma FFA Association, 2017). Based on Krejcie's and Morgan's (1970) method of determining a representative sample size, 136 SBAE programs were sampled for this study. From the 136 programs in the sample, 1,694 students were registered for the event. After receiving the sample responses from the list of SBAE programs, the unit of analysis was collapsed to individual students.

The 2017 OSU Interscholastics took place over the course of two days and is considered the state finals CDE/LDE competition for the Oklahoma FFA Association. The OSU Interscholastics also determines most national qualifying teams and individuals. All of the state level events in Oklahoma have open registration with the exception of the following events that have qualifying competitions at the regional and area level, or a screening process: public speaking, parliamentary procedure, conduct of chapter meetings, freshman agriscience quiz bowl, employment skills, and agricultural education teaching. Members of the population was accessed on the Internet through JudgingCard.com website. The total number of students and their respective schools also was available. However, it was not possible to access the participants' names and contact individuals directly. Therefore, a random cluster sample was taken from the list of all SBAE programs in Oklahoma that registered students for the 2017 OSU Interscholastics event ($N = 213$).

This study followed Dillman's, Smyth's, and Christian's (2014) tailored survey design procedure to gather data via a Qualtrics© Internet questionnaire (see Appendix H). The first section of the questionnaire collected basic demographic information such as sex and grade in school. The questionnaire included adapted instruments from the CIS (Keller, 2006), CCS (Myers et al., 2006), and a participant self-efficacy instrument

(Vargas-Tonsing et al., 2003). A modified version of the CCS will be used to examine students' perceptions of the CDE/LDE coaching competency of their FFA advisors. Keller's (2006) *Course Interest Survey* (CIS) was adapted and utilized to assess how motivated FFA members were by their experience in their particular CDE/LDE on a state level. The CIS instrument measured four components of motivation: (a) 12 items for attention, (b) nine items for relevance, (c) nine items for confidence, and (d) six items for satisfaction (Keller, 2006).

Myers et al. (2006) developed an instrument to assess student athletes' evaluation of their coaches' competency, referred to as the Coaching Competency Scale (CCS). The CCS is based on a previous instrument developed by Feltz et al. (1999), known as the Coaching Efficacy Scale (CES), which assessed a coach's own perceived ability to affect athletes' performance. The CES (Feltz et al., 1999) was designed with Bandura's (1997) self-efficacy theory as a frame. Coaching efficacy is defined as the "extent to which coaches believe they have the capacity to affect the learning and performance of their athletes" (Feltz et al., 1999, p. 765). Myers et al. (2006) stated, "athletes' evaluations of their coach's competency in domains measured by the CES—instructional technique, motivation, game strategy, and character-building—should be related to athletes' self-perceptions and attitudes, which in turn should be related to athletes' motivation and performance" (p. 113). Although the CCS was designed originally for assessing high school and smaller division collegiate athletes' perceptions, the researchers stated that the CCS could be utilized in other educational settings.

Keller's (2006) CIS instrument was originally designed gauge students' perceptions of instruction in a particular course. However, Keller (2006) suggested the

instrument may be adapted to different instructional situations. In this particular study, wording from the instrument such as *this course* or *instructor* was replaced with *CDE* and *advisor* respectively. According to Keller (2006), the CIS instrument is also appropriate for secondary students.

An online questionnaire was created and administered through the Qualtrics© anonymous link feature (see Appendix H). After receiving approval from the Institutional Review Board at Oklahoma State University, a pilot test was conducted with 106 high school students at a SBAE program in a suburban school district. Of the 106 students, 21 responded they had participated in the 2017 OSU FFA CDE Interscholastic. Those 21 students received questions that included adapted versions of the ARCS Course Interest Survey (Keller, 2006), Coaching Competency Scale (Myers, et al., 2006), and a participant self-efficacy instrument (Vargas-Tonsing et al., 2003). Vargas-Tonsing et al. (2003) establish *a priori* Cronbach's alpha reliability scores for a 7-item player self-efficacy instrument (α = .82). The reliability estimates for the adapted student self-efficacy instrument used in the pilot was (α = .87).

Teachers from the programs included in the cluster sample received an invitation email with a link to the questionnaire, a parent form with opt-out information (see Appendix C), and instructions for participation in the study. For the CIS, Keller (2006) established *a priori* Cronbach's alpha reliability estimates for attention (α = .84), relevance (α = .84), confidence (α = .81), satisfaction (α = .88), total CIS scale (α = .95). The Cronbach's alpha reliability estimates for the responses in this study included attention (α = .71), relevance (α =.85), confidence (α = .59), satisfaction (α =.79), total CIS scale (α = .91). Myers et al. (2006) established *a priori* Cronbach's alpha reliability

estimates for the CCS in motivation competency (α = .90), technique competency (α = .85), and character-building competency (α = .82). The reliability estimates for responses in this study included motivation competency (α = .94), technique competency (α = .92), character-building competency (α = .80), and total competency (α = .96).

I followed a modified approach to the Dillman et al. (2014) multiple-contact email strategy. The initial email invitation message was sent to teachers from the sample of SBAE programs (n = 136) on March 26, 2018 and included a parent information form with an opt-out section, a URL and quick response (QR) code to access the study. A follow-up email was sent on March 29, 2018 to the entire sample to thank those who participated and remind all teachers from programs that had not participated to share the opportunity with their students. A third email was sent on April 4, 2018 to remind those who had not participated about the study and requested their help in sharing the study with their students. A fourth and final email was sent on April 9, 2018 and the data collection period ended on April 13, 2018. A total of 156 usable responses were collected from 34 SBAE programs, producing a response rate of 9.2%. Non-response bias was addressed by conducting a comparison between early responses and nonrespondents on variables of interest (Lindner, Murphy, & Briers, 2001; Miller & Smith, 1983). After the data collection period closed, nonrespondents were contacted and an additional 12 responses were collected. Lindner et al., (2001) stated that if fewer than 20 nonrespondents are collected, their responses could be combined with other late respondents. The 12 nonrespondents were combined with late respondents, defined as the wave of 20 responses recorded after the final email was sent on April 9, 2018. A random sample of responses (*n* =20) was selected from the pool of late and nonrespondents and

compared to early respondents (n = 89). An independent samples t-test showed no statistically significant ($p > 0.05$) difference between early and late responders on the variables of interest. Non-response bias was addressed by following the recommendations of Miller and Smith (1983), and Lindner, Murphy, and Briers (2001). Nonrespondents were contacted after the data collection period was closed, and 12 additional responses were collected. Lindner et al., (2001) stated that if fewer than 20 nonrespondents are collected, their responses could be combined with other late respondents. The 12 nonrespondents were combined with late respondents defined as the wave of 20 responses recorded after the final email was sent on April 9, 2018. A random sample of responses (n =20) were selected from the pool of late and nonrespondents and compared to early respondents (n = 89). An independent samples t-test showed no statistically significant ($p > 0.05$) difference between early and late responders on the variables of interest.

Table 11 describes the demographic characteristics of respondents that reported to have participated in the 2017 OSU FFA Interscholastic event.

Table 11

Characteristics of FFA members that participated in 2017 OSU FFA CDE/LDE Interscholastic

Characteristic	*f*	*%*
Sex (n = 156)		
Female	101	64.7
Male	54	34.6
No answer	1	.6

Characteristic	*f*	%
Grade in school (*n* = 156)		
9th Grade	14	9.0
10th Grade	32	20.5
11th Grade	46	29.5
12th Grade	62	39.7
Post-Secondary	2	1.3

Almost two-thirds (*f* = 101) of respondents were female, and almost 70% (*f* = 108) were high school juniors or seniors. Two respondents (1.3%) were post-secondary students.

At the conclusion of the data collection period, responses were imported from Qualtrics© to Statistical Package for Social Sciences (SPSS) version 23 to analyze all data related to this study. Histograms revealed the data for the CCS motivation variable to be negatively skewed, suggesting that scores were clustered toward the high end of the scale. Conversely, a histogram of the data for participants' efficacy based on their performance was positively skewed, suggesting a cluster of scores in the low end of the scale (Field, 2013). Descriptive statistics including means, frequencies, percentages, and standard deviations were used to report demographic information, participants' CDE/LDE performance rankings, motivation levels, and ratings of their FFA advisor's coaching competency. An analysis of variance was conducted to compare the levels of efficacy for each group based on their reported ranking as a team and as an individual in their CDE/LDE event. Pearson correlation coefficients were used to investigate the

relationships between three major variables and their constructs—participants' motivation, self-efficacy, and perception of coaching competency of FFA advisors (Field, 2013). Creswell (2012) established recommendations for determining the strength of correlations. According to Creswell (2012), *slight* relationships range from .20 to .35, *limited* relationships range between .35 and .65, *good* relationships range from .66 to .85, and *very strong* relationships range from .86 and above (Creswell, 2012).

Findings

The following section provides a summary of the findings for each of the four research questions.

Findings for Research Question 1

The first research question in this study sought to describe students' perceptions of their FFA advisor's coaching competency. Table 12 displays descriptive statistics of participants' reported perceptions of their FFA advisor's coaching competency.

Table 12

Students' Perceptions of their FFA Advisors' Coaching Competency within Team Performance Grouping

	1st-5th *n* = 38		6th-10th *n* = 22		11th-15th *n* = 15		16th-20th *n* = 27		Total *n* = 102	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Motivation	8.78	1.43	8.79	1.28	8.81	1.43	8.64	1.43	8.75	1.38
Character-building	9.08	1.22	9.00	1.29	9.03	1.14	8.71	1.26	8.96	1.23
Technique	8.91	1.23	8.78	1.11	8.73	1.63	8.35	1.75	8.35	1.75
Overall	8.90	1.25	8.83	1.15	8.83	1.36	8.55	1.36	8.78	1.27

Note. Scale: 1 = Not at all competent; 10 = Extremely competent.

Means were displayed across all CCS variables, grouped by team ranking (1st-5th, 6th-10th, 11th-15th, 16th-20th). Mean scores were reported for each variable of coaching competency as well as overall coaching competency. Character-building competence was the highest mean of all coaching competency variables at 8.96 (*SD* = 1.23). Technique competence was the lowest scoring mean of all CCS constructs at 8.35 (*SD* = 1.75). The mean for overall advisor competency was 8.78 (*SD* = 1.27).

Table 13 displays the mean for coaching competency across groups based on individual ranking in their CDE/LDE. Individuals who placed 1-5 reported the highest ratings for coaching competency overall and within each CCS construct (see Table 13).

Table 13

Students' Perceptions of their FFA Advisors' Coaching Competency within Individual Performance Grouping

	1st-5th *n* = 16		6th-10th *n* = 18		11th-15th *n* = 15		16th-20th *n* = 49		Total *n* = 98	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Motivation	9.09	1.14	8.62	1.36	8.37	1.64	8.86	1.35	8.78	1.36
Character-building	9.32	1.15	9.06	1.17	8.65	1.38	8.99	1.18	9.01	1.20
Technique	9.06	0.98	8.80	1.32	8.35	1.49	8.72	1.49	8.73	1.43
Overall	9.13	1.04	8.79	1.23	8.43	1.58	8.84	1.58	8.82	1.26

Note. Scale: 1 = Not at all competent; 10 = Extremely competent.

Findings for Research Question 2

Students' perception of FFA advisor's coaching competency and motivation was analyzed with a Pearson correlation analysis between all variables of the CCS and

reported levels of motivation from the modified CIS instrument (see Table 14). All relationships between CIS and CCS constructs were positively correlated. Respondents reported limited positive relationships between coaching motivation competence and attention ($r = .45$, $p < .01$) and relevance ($r = .36$, $p < .01$). Motivation competence also had a slight positive relationship with satisfaction. Coaching technique competence had limited positive relationships with attention ($r = .48$, $p < .01$), relevance ($r = .55$, $p < .01$), and satisfaction ($r = .36$, $p < .01$). Character-building competence had limited positive relationships with attention ($r = .50$, $p < .01$), relevance ($r = .45$, $p < .01$), and satisfaction ($r = .36$, $p < .01$). Among all CIS motivation variables, participants' confidence appeared to have the weakest relationship with all coaching competency variables, producing only slight positive relationships with technique competence ($r = .24$, $p < .01$), and character-building competence ($r = .23$, $p < .01$).

Findings for Research Question 3

The third research question was designed to examine the relationship between participants' perception of their FFA advisor's coaching competency and their self-efficacy. Respondents reported a mean efficacy score of 3.24 ($SD = .37$) on a 5-point Likert-type scale. A correlation analysis (see Table 14) revealed no significant correlations across all variables of coaching competency. All correlations were positive, and technique competence was reported to have the strongest positive relationship with participant self-efficacy, relative to other CCS variables ($r = .13$). Character-building competence ($r = .10$) and motivation competence ($r = .05$) showed no significant relationship with participant efficacy.

Table 14

Summary of Correlations Between ARCS Motivation and CCS Coaching Competency

	1	2	3	4	5	6	7	8	9	10
1. Attention	---	.64**	.44**	.55**	.76**	.45**	.48**	.50**	.51**	.13
2. Relevance		---	.59**	.69**	.77**	.36**	.55**	.45**	.49**	.23**
3. Confidence			---	.69**	.54**	.19*	.24**	.23**	.24**	.18**
4. Satisfaction				---	.70**	.25**	.36**	.36**	.34**	.20*
5. CIS Total					---	.38**	.51**	.48**	.49**	.23**
6. Motivation Competence						---	.77**	.79**	.94**	.053
7. Technique Competence							---	.70**	.91**	.135
8. Character-building Competence								---	.87**	.109
9. CCS Total									---	.104
10. Participant Efficacy										---

**p < .05; **p<.01.*

Findings for Research Question 4

The fourth research question sought to examine if significant differences in FFA members' perception of their advisors' coaching competency existed between groups based on team and individual performance in a CDE. Responses were grouped by participants' rankings as an individual in their CDE/LDE: 1st-5th, 6th-10th, 11th-15th, 16th-20th (see Table 13). Respondents whose team placed first through fifth, or who placed first through fifth as an individual in their CDE/LDE rated their coach's competency higher than respondents who placed lower than fifth. This higher rating was true for each CCS construct and the overall rating.

An analysis of variance was conducted to examine differences in perception of FFA advisors' coaching competency between groups based on their individual ranking category. No statistically significant difference was found in reported CCS competency scores across individual ranking groups for the CCS constructs motivation competence $F(3, 94) = .863$, $p = .46$, technique competence $F(3, 94) = .631$, $p = .59$, character-building competence $F(3, 94) = .83$, $p = .48$, and overall competency $F(3, 94) = .822$, $p = .48$.

An analysis of variance was conducted to examine differences in perception of FFA advisors' coaching competency between groups based on their team ranking category. No statistically significant difference was found in reported CCS competency scores across team rankings for the CCS constructs motivation competence $F(3, 98) = .075$, $p = .97$, technique competence $F(3, 98) = .832$, $p = .48$, character-building competence $F(3, 98) = .512$, $p = .67$, and overall competency $F(3, 98) = .404$, $p = .75$.

Conclusions

Based on the findings of the study, acknowledging the limitations of the sample, four conclusions were made. Each of the conclusions listed are discussed further in the following section.

1. Participants found their FFA advisors to be highly competent coaches
2. Participants who view their FFA advisors as highly competent coaches are also highly motivated.
3. Participants' success in CDE/LDE competitions has no bearing on their perception of their FFA advisor's coaching competency.
4. Participants' self-efficacy is not influenced by their perception of their FFA advisor's coaching competency
5. Participants' success in CDE/LDE competitions has no bearing on their perception of their FFA advisors as a highly competent coach.

Conclusion 1: Participants found their FFA advisors to be highly competent coaches.

FFA advisors, as coaches, have the ability to positively influence their students' motivation and feelings of confidence and satisfaction, and express the value of the tasks (Keller, 2006). This conclusion suggests that while FFA advisors display competence in developing their students personal growth and a positive attitude toward competition in a CDE/LDE, they may not provide instructional and diagnostic ability to the same level of competence (Myers et al., 2006).

Of the three constructs associated with coaching competency in this study (Myers et al., 2006), participants rated their FFA advisor's character-building competence

highest, and technique competence lowest. From this finding, FFA advisors have the ability to positively influence students' personal development and attitudes towards their CDE/LDE.

Conclusion 2: Participants who view their FFA advisors as highly competent coaches are also highly motivated.

The magnitude of correlations between coaching competency and motivation ranged from slight to limited (Creswell, 2012). The four major conditions for motivation to learn, as defined by Keller (1987a), appear to be addressed by FFA advisors and CDE/LDE participants. These findings suggest FFA advisors' coaching competence provides a significant limited prediction of participants' attention, relevance, confidence, and satisfaction. Technique coaching competency demonstrated the strongest positive relationships across all ARCS variables and particularly for relevance (r = .55). This finding suggests a coach's perceived ability to instruct and improve students' technique can influence how important and useful the instruction is for the student. CDE/LDE participants appear to value effective skills demonstration and feedback from a competent coach. Deci et al. (1999) found that positive feedback in an informal format, rather than controlling format, can lead to greater student achievement and less fear of failure (Keller, 1987a, 1987b). Further, FFA advisors appear to be effective at reinforcing participants' satisfaction, or positive feelings of accomplishment with extrinsic and intrinsic factors (Keller, 1987a, 1987b). Ball et al. (2016a) found that successful CDE/LDE coaches initially utilize extrinsic motivation strategies, which eventually evolve to intrinsic motivation as participants gain a deeper understanding of content related to their CDE. In addition to rewards from contests, FFA advisors motivated

students with external factors such as recognition, incentives, and upholding FFA chapter traditions. Internal satisfaction was felt from developing abilities and expertise in their subject.

Conclusion 3: Participants' success in CDE/LDE competitions has no bearing on their perception of their FFA advisor's coaching competency.

Although it is not surprising that CDE/LDE participants that ranked highly in their event view their FFA advisor to be competent as a coach, it is surprising lower ranking participants also rated their FFA advisors as highly competent coaches. Students perceived that their FFA advisors were most competent in character-building and least competent in technique. Although FFA advisors of lower performing participants appear to be effective in influencing positive attitudes towards the subjects of their CDE/LDE, they do not appear to be as competent in their roles related to evaluation and technical instruction of skills and concepts (Myers et al., 2006). This could explain why lower ranking students still perceived their FFA advisor to be competent overall as a coach.

This finding highlights critical questions for FFA advisors and their approach to preparing students in CDEs/LDEs. Are FFA advisors of low ranking teams and individuals providing appropriate instruction of CDE/LDE content? Do FFA advisors of low ranking participants place a greater emphasis on other aspects of CDEs/LDEs, rather than competitiveness?

Conclusion 4: Participants' self-efficacy is not influenced by their perception of their FFA Advisor's coaching competency.

Although participants rated their FFA Advisors to be highly competent coaches, this rating showed no relationship with their own feelings of efficacy in their CDE/LDE

performance. No significant correlation was shown between participant self-efficacy and each of three CCS constructs. This finding is not consistent with previous studies related to CDE/LDE and teaching or coaching strategies (Ball et al., 2016a; Knobloch et al., 2016; Russell et al., 2009). As a coach's motivation and character-building competence relates to their ability to influence their students' attitudes, skills, and strategies (Myers et al., 2006), it is surprising that self-efficacy showed no significant relationship with those coaching constructs. These results indicate a possible disconnect between participants' evaluation of their performance as a success or failure and the influence of their FFA advisor. Croom et al. (2009) reported a discrepancy between students and teachers on perceived motivation to participate in a CDE. Teachers rated competition as the most important factor, and students reported it as least important. Given these findings, a number of questions emerge. Are the FFA advisors of reportedly lower ranking CDE/LDE participants providing adequate evaluations and feedback to their students? Bandura (1997) listed verbal persuasion as one source of efficacy for students. However, the type of verbal reinforcement may bring about different responses. Henderlong and Lepper (2002) concluded that verbal praise can undermine, enhance, or have no effect on children's intrinsic motivation. Praise that is sincere, encourages performance, and avoids social comparisons are most effective in enhancing motivation. The participants' characteristics such as age, gender, and culture can also mediate motivation (Henderlong & Lepper, 2002).

Conclusion 5: Participants' success in CDE/LDE competitions has no bearing on their perception of their FFA advisors as a highly competent coach.

Although participants who ranked 1-5 reported the highest means of CCS scores, no significant differences were found in perception of coaching competency between high and low-ranking groups. These results suggest that although high ranking CDE/LDE participants may attribute their success to their FFA advisor, low ranking participants do not attribute their low performance to their advisor's coaching competency. Do participants value CDEs/LDEs differently than FFA advisors? There also may be a discrepancy in the performance goals of FFA advisors and CDE/LDE participants. The OSU FFA Interscholastics has open registration; therefore some participants may have reported high motivation and efficacy ratings regarding CDEs/LDEs as a reflection of their enjoyment of visiting the university campus and taking part in a state-wide event. It is possible many students have limited experience or success prior to participating in the OSU Interscholastic.

Do FFA advisors of lower ranking participants motivate their students differently? Many low performing students may not have felt the same sense of competitiveness and high-stakes regarding the OSU Interscholastics events as higher performing participants. Russell et al. (2009) found that FFA advisors of state-winning CDE teams reported their students were motivated by the opportunity to compete and maintain a rich tradition of success in the program and community.

Recommendations for Research

Due to low response rate, the conclusions and recommendations from this study should be approached with caution. However, this study generates important questions for further research.

1. Do differences in coaching competency occur in different disciplines and settings? Future research should examine if there is a difference in students' perception of their FFA advisors' coaching competency to that of other teachers and coaches.
2. What is the coaching efficacy of FFA advisors? A teacher's sense of self-efficacy relates to student achievement (Hoy & Spero, 2005; Vargas-Tonsing et al. 2003). Does a discrepancy exist between students' and teachers' perceptions of coaching competency? FFA advisors should be given the opportunity to complete a self-assessment instrument modified from the CCS scale and compare with student responses. FFA advisors should be aware of their effectiveness as coaches and strive to grow in their competency.
3. What factors motivate FFA advisors to encourage student participation in CDEs/LDEs? Are the values and expectancies of FFA advisors different than that of participants?
4. How does an individual or team's performance affect the efficacy of FFA advisors? King, Rucker, and Duncan (2013) found that preparing students for CDEs was one of the top sources of stress for female SBAE teachers in the southeast United States. Can added career stress lead to great levels of attrition?

5. Are there differences in perceptions of FFA advisor's coaching competency across various characteristics such as years of experience, gender, and population of school?

Recommendations for Practice

Based on the findings of this study, the following recommendations were made for practitioners in SBAE:

1. FFA advisors should regularly administer evaluations of their coaching competence as perceived by CDE/LDE participants, as well as assessing the motivation of participants. Self-evaluations can assist FFA advisors in identifying needed areas of improvement. Advisors should also review the purposes of CDEs/LDEs and direct their approach to the events as tools for developing career and college readiness (National FFA Organization, 2017).
2. FFA advisors should establish clear objectives for CDE/LDE participants. Although students may feel motivated and efficacious toward their event, lower performance may be an indication of a lack of skill in a given subject area. CDE/LDE participation should motivate and support learning that takes place in the classroom and laboratory (Bunger, 1948; Case & Whitaker, 1998; Edwards & Booth, 2001; Gadda, 1978; Talbert et al., 2014). Often, performance in a CDE/LDE can be a reflection of the curriculum instruction that students are receiving (Edwards & Booth, 2001; Gartin, 1985; Gray, 1958; Johnson, 1948; Shry, 1989). FFA advisors should serve as the standard-setters and set forth high expectations that are clearly known and upheld by students and CDE/LDE participants.

3. FFA advisors should emphasize the importance of skill and content mastery over winning competitions (Bunger, 1948; Shry, 1989).
4. FFA advisors should be purposeful in connecting the goals of CDE/LDE performance to long term career and college readiness skills, and ultimately toward a career pathway (Edwards & Booth, 2001; National FFA Organization, 2017).
5. CDEs/LDEs should continue to be utilized as authentic forms of assessment for students (Connors & Mundt, 2001; Kelsey, 2001).
6. FFA advisors should purposefully provide CDE/LDE participants with sources of efficacy (Bandura, 1977, 1997). Knobloch et al. (2016) suggested, "one might expect that self-efficacy would be higher as youth advance to a higher level of competition because of mastery experiences" (p. 25). Because most CDEs/LDEs in Oklahoma do not have qualifying contests at the area or regional level, many students may not have the opportunity to develop a sense of self-efficacy from mastery experiences (Bandura, 1997; Knobloch et al., 2016). Prior to their participation in a state-wide, national qualifying event, FFA advisors should foster situations that are sources of self-efficacy by allowing students to gain mastery in skills related to agriculture and career success, such as workshops, practice contests, industry tours, and use of real examples. Practice dynamics should reflect contests and provide students authentic constructive assessment and feedback of their performance (Edwards & Booth, 2001).

REFERENCES

Allport, F. H. (1924). *Social Psychology*. Boston, MA: Houghton Mifflin

Alfred, C., Stone, J. R., Aragon, S. R., Hansen, D. M., Zirkle, C., Connors, J., Spindler, M., Romine, R. S., & Woo, H. (2007). Looking inside the black box: The value added by career and technical student organizations to students' high school experience. *National Research Center for Career and Technical Education.* Retrieved from http://www.nrccte.org/sites/default/files/publication-files/looking_inside_the_black_box.pdf

Ashton, P. (1984). Teacher efficacy: A motivational paradigm for effective teacher education. *Journal of Teacher Education, 35*(5), 28-32. doi:1177%2F002248718403500507

Atkinson, J. W. (1957). Motivational determinants of risk-taking behavior. *Psychological Review, 64*(6), 359-372. Retrieved from https://static1.squarespace.com/static/57309137ab48de6f423b3eec/t/588a1a9846c3c4746d0816d6/1485445785596/Atkinson1957.pdf

Ball, A., Bowling, A., & Bird, W. (2016a). A case study of learning, motivation, and performance strategies for teaching and coaching CDE teams. *Journal of Agricultural Education, 57(*3), 115-128. doi:10.5032/jae.2016.03115

Ball, A., Bowling, A., & Sharpless, J. D. (2016b). An observational analysis of coaching behaviors for career development event teams: A mixed methods study. *Journal of Agricultural Education, 57*(3), 101-114. doi:10.5032/jae.2016.03101

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Bulletin, 84*(2), 191-215. doi:10.1037/0033-295X.84.2.191

Bandura, A. (1997). *Self-Efficacy: The exercise of control.* New York, NY: W. H. Freeman and Company.

Berry, J. B. (1924). *Teaching agriculture: An analysis for the teaching activity in its relation to the learning process.* New York, NY: World Book Company.

Blakely, M., Holshuh, M., Seefeldt, B., Shinn, G., Smith, E., & Vaughn, P. R. (1993). Perceived value of FFA contests and awards by students and other adults. *Proceedings of the Twentieth Annual National Agricultural Education Research Meeting, 20,* Nashville, TN, 355-360.

Carter, B. J. (1978). Student competition—Incentive. *The Agricultural Education Magazine, 51*(3), 51.

Clifford, M.M. (1971). Motivational effects of competition and goal-setting in reward and non-reward conditions. *The Journal of Experimental Education, 39*(3), 11-16. Retrieved from http://www.jstor.org/stable/20157188

Clifford, M.M. (1972). Effects of competition as a motivational technique in the classroom. *American Educational Research Journal, 9*(1), 123-137. doi:10.3102/12009001123

Connors, J. J., & Mundt, J. P. (2001). Experiential education and career development events. *The Agricultural Education Magazine, 73*(6), 6-7. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume73/v73i6.pdf

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th Ed.). New York, NY: Pearson.

Croom, D. B., & Flowers, J. L. (2001). Factors influencing an agricultural education student's perception of the FFA organization. *Journal of Agricultural Education, 42*(2), 28-37. doi:10.5032/jae.2001.02028

Croom, D. B., Moore, G., & Armbrister, J. (2005). National FFA career development events: An introspective inquiry. *Proceedings of the 2005 AAAE Southern Region Conference,* 121-132. Retrieved from http://aaaeonline.org/Resources/Documents/Southern%20Region/Proceedings,%20Southern%202005.pdf

Croom, D. B., Moore, G., & Armbrister, J. (2009). An examination of student participation in national FFA career development events. *Journal of Southern Agricultural Education Research, 59*, 109-121. Retrieved from http://jsaer.org/pdf/Vol59/2009-59-009.pdf

Curry, K., Falk, J., Warner, W., & Park, T. (2017, May). Does motivation matter? Examining the relationship between student motivation and performance in

Career Development Events. Research paper presented at the *2017 American Association for Agricultural Education National Research Conference*, San Luis Obispo, CA.

Deci, E. L. (1976). The hidden cost of rewards. *Organizational Dynamics, 4*(3), 61-72. doi:10.1016/0090-2616(76)90036-X

Deci, E. L., Betley, G., Kahle, J., Abrams, L., Porac, J. (1981). When trying to win: Competition and intrinsic motivation. *Personality and Social Psychology Bulletin, 7*(1), 79-83. doi:10.1177/014616728171012

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin, 125*(6), 627-668. doi:10.1037/0033-2909.125.6.627

Deutsch, M., (1949). A theory of co-operation and competition. *Human Relations, 2*(2), 129-152. doi:10.1177/001872674900200204

Dewey, J. (1900). *The school and society*. Chicago, IL: University of Chicago Press.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method.* Hoboken, NJ: Wiley.

Eccles, J. S., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J., & Midgley, C. (1983). Expectancies, values and academic behaviors. In Spence, J. T. (Ed.), *Achievement and Achievement Motives.* San Francisco, CA: W. H. Freeman.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology, 53*, 109-132. doi:10.1146/annurev.psych.53.100901.135153

Edwards, M. C., & Booth, P. (2001). Ten rules of the road – Career development events. *The Agricultural Education Magazine, 74*(2), 24-25. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume74/v74i2.pdf

Epstein, J. A., & Harackiewicz, J. M. (1992). Winning is not enough: The effects of competition and achievement orientation on intrinsic interest. *Personality and Social Psychology Bulletin, 18*(2), 128-138. doi:10.1177/0146167292182003

Field, A. (2013). *Discovering statistics using IBM SPSS statistics.* Los Angeles, CA: Sage Publications.

Feltz, D. L., Chase, M. A., Moritz, S. E., & Sullivan, P. J. (1999). A conceptual model of coaching efficacy: Preliminary investigation and instrument development. *Journal of Educational Psychology, 91*(4), 765-776. doi:10.1037/0022-0663.91.4.765

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, *7*(2), 117-140. doi:10.1177/001872675400700202

Gadda, H. W. (1978) A philosophy of contests in vocational agriculture. *The Agricultural Education Magazine, 51*(3), 55. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume51/v51i3.pdf

Gartin, S. A. (1985). Rich sources of inspriration. *The Agricultural Education Magazine, 57*(11), 4. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume57/v57i11.pdf

Gray, J. D. (1958). Contests have value. *The Agricultural Education Magazine, 30*(9), 197-199. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume30/v30i9.pdf

Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*(4), 569-582. doi:10.1037/0022-0663.76.4.569

Harris, C. R. (2008). Career development event participation and professional development needs of Kansas agricultural education teachers. *Journal of Agricultural Education, 49*(2), 130-138. doi:10.5032/jae.2008.02130

Henderlong, J., & Lepper, M. R. (2002). The effects of praise on children's intrinsic motivation: A review and synthesis. *Psychological Bulletin, 128*(5), 774-795. doi:10.1037//0033-2909.128.5.774

Herren, R. (1984). Factors associated with the success of participants in the National Future Farmers of America livestock judging contest. *Journal of the American Association of Teacher Educators in Agriculture, 25*(1), 12-19. doi:10.5032/jaatea.1984.01012

Hoover, T. S., & Scanlon, D. C. (1991). Enrollment issues in agricultural education programs and FFA membership. *Journal of Agricultural Eduation, 32*(4), 2-10. doi:10.5032/jae.1991.04002

Hoover, T. S., Scholl, J. F., Dunigan, A. H., & Mamontova, N. (2007). A historical review of leadership development in the FFA and 4-H. *Journal of Agricultural Education, 48*(3), 100-110. doi:10.5032/jae.2007.03100

Howe, F. W. (1910). *Boy's and girls' agricultural clubs*. Washington, DC: Government Printing Office

Horn, T. S. (2002). Coaching effectiveness in the sports domain. In T. S. (Ed.), *Advances in sport psychology* (pp. 309-354). Champaign, IL: Human Kinetics.

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education, 21*(1), 343-356. doi:10.1016/j.tate.2005.01.007

Israel, G. D. (1992). *Determining sample size* (IFAS Report PE0D6). Retrieved from University of Florida, Institute of Food and Agricultural Sciences Extension website: http://edis.ifas.ufl.edu/pd006

Johnson, D. W., & Johnson, R. T. (1974). Instructional goal structure: Cooperative, competitive, or individualistic. *Review of Educational Research, 44*(2), 213-240. doi:10.3102/00346543044002213

Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company

Johnson, D. W., & Johnson, R. T. (1994). *Learning together and alone: Cooperative, competitive, and individualistic learning*. Needham Heights, MA: Allyn and Bacon

Johnson, E. J. (1948). Adjustments in national contests. *The Agricultural Education Magazine, 21*(4), 75-76. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume21/v21i4.pdf

Jones, A. D. (2013). *Assessing student motivation to participate in FFA career development events* (Doctoral dissertation, North Carolina State University). Retrieved from https://repository.lib.ncsu.edu/handle/1840.16/9144

Jones, M. C., & Edwards, M. C. (2018). *Competition as an instructional approach in school-Based, agricultural education (SBAE): A historical review*. Manuscript submitted for publication.

Keller, J. M. (1979). Motivation and instructional design: A theoretical perspective. *Journal of Instructional Development, 2*(4), 26-34. doi: 10.1007/BF02904345

Keller, J. M. (1984). The use of the ARCS model of motivation in teacher training. In K. E. Shaw (Ed.), *Aspects of educational technology volume XVII: Staff development and career updating*. London; Kogan Page.160

Keller, J. M. (1987a). Development and use of the ARCS model of instructional design *Journal of Instructional Development, 10*(3), 2-10. Retrieved from http://www.jstor.org/stable/30221294

Keller, J. M. (1987b). Strategies for stimulating the motivation to learn. *Performance & Instruction, 26*(8), 1-7. doi:10.1002/pfi.4160260802

Keller, J. M. (1987c). The systematic process of motivational design. *Performance and Instruction, 26*(9), 1-8. Retrieved from http://terrikrause.com/Content/documents/Keller1987Systematic.pdf

Keller, J. M. (2006) *Development of two measures of learner motivation.* (Unpublished draft in progress). Florida State University, Tallahassee, FL. Retrieved from https://olpcorps.wikispaces.com/file/view/ARCSMEA+Partial+Draft+060222.doc

Kelsey, K. D. (2001). Overcoming standardized testing with authentic assessment strategies in the classroom. *The Agricultural Education Magazine, 73*(5), 4. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume73/v73i5.pdf

Kieth, L E., & Vaughn, P. R. (1998). The value of 4-H competitive activities as perceived by the parents of 4-H members. *Journal of Agricultural Education, 39*(3), 41-50. doi:10.5032/jae.1998.03041

Kilduff, G. J. (2014). Driven to win: Rivalry, motivation, and performance. *Social Psychological and Personality Science, 5*(8), 944-952. doi:10.1177/1948550614539770

Kline, P. (1999). *The handbook of psychological testing* (2nd ed). London: Routledge.

Knobloch, N. A., Brady, C. M., Orvis, K.S., & Carroll, N. J. (2016). Development and validation of an instrument to assess youth motivation to participate in career development events. *Journal of Agricultural Education, 57*(4), 16-28. doi:10.5032/jae.2016.04016

Kohn, A. (1986). *No contest: The case against competition*. Boston, MA: Houghton Mifflin Company.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610. doi:10.1177/001316447003000308

Lancaster, K., Knobloch, N. A., Jones, A., & Brady, C. (2013). Youth motivation to participate in animal science-related career development events. *Journal of*

Extension, 51(2), 1-5. Retrieved from https://www.joe.org/joe/2013april/pdf/JOE_v51_2rb2.pdf

Lewin, K. (1935). *A dynamic theory of personality*. New York, NY: McGraw-Hill.

Lewin, K. (1938). *The conceptual representation and measurement of psychological forces.* Durham, NC: Duke University Press.

Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education, 42,*(4), 43-53. doi:10.5032/jae.2001.04043

Lundry, J., Ramsey, J. W., Edwards, M. C., & Robinson, J. S. (2015). Benefits of career development events as perceived by school-based, agricultural education teachers. *Journal of Agricultural Education, 56*(1), 43-57. doi:10.5032/jae.2015.01043

May, M., & Doob, L. (1937). *Competition and cooperation*. New York, NY: Social Science Research Council.

Mayfield, G. M. (1978) Contests and the classroom—A delicate combination. *The Agricultural Education Magazine, 51*(3), 54, 58. Retrieved from Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume51/v51i3.pdf

Miller, L. E., & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension, 21*, 45-50. Retrieved from http://www.joe.org/joe/1983september/83-5-a7.pdf

Miller, L. K., & Hamblin, R. L. (1963). Interdependence, differential rewarding, and productivity. *American Sociological Review, 28*(5), 768-778. Retrieved from http://www.jstor.org/stable/2089914

Murayama, K., & Elliot, A. J. (2012). The competition-performance relation: A meta-analytic review and test of the opposing processes of the model of competition and performance. *Psychological Bulletin, 138*(6), 1035-1070. doi:10.1037/a0028324

Myers, B. E., Dyer, J. E., & Breja, L. M. (2003). Recruitment strategies and activities used by agriculture teachers. *Journal of Agricultural Education, 44*(4), 94-105. doi:10.5032/jae.2003.04094

Myers, N. D., Chase, M. A., Beauchamp, M. R., & Jackson, B. (2010). Athletes' perceptions of the coaching competency scale II – High school teams. *Educational and Psychological Measurement, 70*(3), 477-494. doi:10.1177%2F0013164409344520

Myers, N. D., Feltz, D. L., Maier, K. S., Wolfe, E. W., & Reckase, M. D. (2006). Athletes' evaluations of their head coach's coaching competency. *Research Quarterly for Exercise and Sport, 77*(1), 111-121. doi:10.1080/02701367.2006.10599337

National FFA Organization. (1994). *67th National FFA Convention proceedings,* Kansas City, MO. Author. Retrieved from https://archives.iupui.edu/handle/2450/142

National FFA Organization. (2016). *National FFA career and leadership development events handbook 2017-2021.* Indianapolis, IN: Author. Retrieved from https://www.ffa.org/SiteCollectionDocuments/cde_2017_2021_intro_section_of_handbook.pdf

National FFA Organization. (2017). *Official FFA manual*. Indianapolis, IN: Author.

National Research Council. (1988). *Understanding agriculture: New directions for education*. Washington, DC: The National Academies Press.

Oklahoma FFA Interscholastics. (2017). Registration summary. [Online registration site] Retrieved from https://www.judgingcard.com/Registration/Admin/Default.aspx?ID=6184

Osborne, E., & Witt, E. (1985). Keeping contests in perspective. *The Agricultural Education Magazine, 57*(11), 7-8. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume57/v57i11.pdf

Parsons, J. E., & Ruble, D. N. (1977). The development of achievement-related expectancies. *Child Development, 48*(3), 1075-1079. Retrieved from http://www.jstor.org/stable/1128364

Pepitone, E. A. (1980). *Children in cooperation and competition: Toward a developmental psychology.* Lexington, MA: D. C. Heath and Company.Pepitone, E. A. (1980). Major trends in research on competition and cooperation, 1897-1980. In *Children in Cooperation and Competition* (pp. 3-66). Lexington, MA: D.C. Heath and Company.

Privitera, G. J. (2017). *Research methods for the behavioral sciences*. Thousand Oaks, CA: Sage Publications, Inc.

Rayfield, J., Fraze, S., Brashears, T. & Lawver, D. (2009). An assessment of recruitment training practices used in a national FFA career development event. *Journal of Southern Agricultural Education Research, 59*, 109-121. Retrieved from http://jsaer.org/pdf/Vol59/2009-59-009.pdf

Reeve, J., & Deci, E. L. (1996). Elements of the competitive situation that affect intrinsic motivation. *Personality and Social Psychology Bulletin, 22*(1), 24-33. doi:10.1177/0146167296221003

Rose, C., Stephens, C. A., Stripling, C., Cross, T., Sanok, D. E., & Brawner, S. (2016). The benefits of FFA membership as part of agricultural education. *Journal of Agricultural Education, 57*(2), 33-45. doi:10.5032/jae.2016.02033

Russell, C. R., Robinson, J. S., & Kelsey, K. D. (2009). Motivating agriculture students to participate in career development events. *Career and Technical Education Research, 34*(2), 103-118. Retrieved from https://illiad-s.library.okstate.edu/illiad/illiad.dll?Action%3D10&Form%3D75&Value%3D1113394

Sanok, D. E., Stripling, C. T., Stephens, C. A., & Griffith, A. P. (2015). Factors impacting members decision to continue FFA beyond high school. *Journal of Agricultural Education, 56*(4), 138-152. doi:10.5032/jae.2015.04138

Schunk, D. H. (2012). *Learning theories: An educational perspective*. Boston, MA: Pearson Education, Inc.

Shry, C. L. (1989). New focus for agricultural education. *The Agricultural Education Magazine*, *61*(11), 19, 22. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume61/v61i11.pdf

Slavin, R. E. (1977). Classroom reward structure: An analytical and practical review. *Review of Educational Research, 47*(4), 633-650. doi:10.3102/00346543047004633

Smith, M. W. (1987). Needed: Educational objectives and administrative criteria for the national FFA contests. *Journal of the American Association of Teacher Educators in Agriculture, 28*(2), 45-50. doi:10.5032./jaatea.1987.02045

Smith, K. L., & Collins, C. (1987). Attitudes toward competition in a youth organization. *The Journal of the American Association of Teacher Educators in Agriculture, 29*(2), 40-48. Retrieved from http://pubs.aged.tamu.edu/jae/pdf/vol29/29-02-40.pdf

Smoll, F. L., & Smith, R. E. (1989). Leadership behaviors in sport: A theorhetical model and research paradigm. *Journal of Applied Social Psychology, 19*(18), 1522-1551. doi:10.1111/j.1559-1816.1989.tb01462.x

Talbert, B. A., & Balschweid, M. A. (2006). Career aspirations of selected FFA members. *Journal of Agricultural Education, 47*(2), 67-80. doi:10.5032/jae.2006.02067

Talbert, B. A., Vaughn, R., Croom, B., & Lee, J. S. (2014). *Foundations of agricultural education*. Upper Saddle River, NJ: Pearson Education Inc.

Tauer, J. M., & Harackiewicz, J. M. (1999). Winning isn't everything: Competition, achievement orientation, and intrinsic motivation. *Journal of Experimental Social Psychology, 35*(3), 209-238. doi:10.1006/jesp.1999.1383

Tauer, J. M., & Harackiewicz, J. M. (2004). The effects of cooperation and competition on intrinsic motivation and performance. *Journal of Personality and Social Psychology, 86*(6), 849-861. doi:10.1037/0022-3514.86.6.849

Tenney, A. W. (1977). *The FFA at 50, 1928-1978.* Alexandria, VA: National FFA Organization.

The Council. (2012). *National FFA Organization*. Retrieved from https://www.ffa.org/thecouncil/ageducation

Through rose colored glasses. (1999). *The Agricultural Education Magazine, 71*(5), 27. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume71/v71i5.pdf

Tolman, E. C. (1932). *Purposive behavior in animals and men.* New York, NY: Century.

Triplett, N. (1897). The dynamogenic factors in pacemaking and competition. *The American Journal of Psychology, 9*(4), 507-533. Retrieved from: http://www.jstor.org/stable/1412188

Tummons, J. D., Simonsen, J. C., & Martin, M. J. (2017). Role of the agricultural industry and judging events in formation of the Future Farmers of America. *Journal of Agricultural Education, 58*(1), 236-250. doi:10.5032/jae.2017.01236

United States Department of Education. (2017). *Career and Technical Student Organizations.* Office of career, technical, and adult education. Retrieved from https://www2.ed.gov/about/offices/list/ovae/pi/cte/vso.html

Uricchio, C., Moore, G., & Coley, M. (2013). Corn clubs: Building the foundation for agricultural and extension education. *Journal of Agricultural Education, 54*(3), 224-237. doi:10.5032/jae.2013.03224

Vargas-Tonsing, T. M., Warners, A. L., & Feltz, D. L. (2003). The predictability of coaching efficacy on team efficacy and player efficacy in volleyball. *Journal of Sport Behavior, 26*(4), 396-407. Retrieved from

https://search.proquest.com/docview/215879649/fulltextPDF/146E6420E741426APQ/1?accountid=4117

Vaughn, P. R., Kieth, L., & Lockaby, J. (1999). The FFA organization: Needed then & needed now. *The Agricultural Education Magazine, 71*(5), 4-5, 11. Retrieved from https://www.naae.org/profdevelopment/magazine/archive_issues/Volume71/v71i5.pdf

Vocational Education Act of 1963, P. L. #88-210, 77 STAT. 403 et seq.; 20 U.S.C. 1241 et seq. (1963).

Wigfield, A. (1994) Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review, 6*(1), 49-78. doi:10.1007/BF02209024

Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology, 25,* 68-81. doi:10.1005/ceps.1999.1015

Wigfield, A., & Eccles, J. S. (2002). *Development of Achievement Motivation*. San Diego, CA: Academic Press.

APPENDICES

APPENDIX A

IRB APPROVAL LETTER

Oklahoma State University Institutional Review Board

Date:	03/12/2018
Application Number:	AG-18-5
Proposal Title:	The Effect of FFA Career and Leadership Development Participation and Coaches' Competency on Student Motivation
Principal Investigator:	Mason Jones
Co-Investigator(s):	MARSHALL BAKER
Faculty Adviser:	MARSHALL BAKER
Project Coordinator:	
Research Assistant(s):	
Processed as:	Expedited

Status Recommended by Reviewer(s): Approved
Approval Date: 02/27/2018
Expiration Date: 02/26/2019

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are available for download from IRBManager. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be approved by the IRB. Protocol modifications requiring approval may include changes to the title, PI, adviser, other research personnel, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any unanticipated and/or adverse events to the IRB Office promptly.
4. Notify the IRB office when your research project is complete or when you are no longer affiliated with Oklahoma State University.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact the IRB Office at 223 Scott Hall (phone: 405-744-3377, irb@okstate.edu).

Sincerely,

Hugh Crethar, Chair Institutional Review Board

.

APPENDIX B

PARTICIPANT INFORMATION FORM

PARTICIPANT INFORMATION
OKLAHOMA STATE UNIVERSITY

Title: THE EFFECT OF FFA CAREER AND LEADERSHIP DEVELOPMENT PARTICIPATION AND COACHES' COMPETENCY ON STUDENT MOTIVATION

Researchers:
Mason Jones
Graduate Teaching and Research Assistant
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University
mason.jones@okstate.edu

Dr. Marshall A. Baker, Advisor
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University
bakerma@okstate.edu

Purpose: The purpose of the research study is to explore and describe the outcomes of participation in a FFA career development event (CDE) on the career and academic motivation of students.

What to Expect: This research study is administered online. Participation in this research will involve completion of one questionnaire. The questionnaire will ask for basic information about your age, grade in school, and participation in career development events. You may skip any questions that you do not wish to answer. You will be expected to complete the questionnaire once. It should take you about 40-60 minutes to complete.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

There are no direct benefits to you. However, you may gain an appreciation and understanding of how research is conducted.

Compensation: Participation in this questionnaire is not tied to any grade, and no compensation will be offered for completion. If you choose not to participate, you will receive no penalty, and may continue with your normal school schedule.

Your Rights: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.

Confidentiality: Your identity, as well as your responses to the items in the questionnaire will be kept completely anonymous through an Anonymous link feature on the Qualtrics survey. You will not be asked any question that would reveal your identity, and all responses to the survey will be secured through password protection.

The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored on a password protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records.

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Mason Jones, Agricultural Hall, Dept. of Agricultural Education, Communication, and Leadership, Oklahoma State University, Stillwater, OK 74078, 903-436-6155 or mason.jones@okstate.edu. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

If you choose to participate: Please, follow this link to the online questionnaire: https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_b42ugMle4W8GNN3. You may also scan this QR code with a smart phone. It is suggested that you print this page for your records.

APPENDIX C

PARENT INFORMATION FORM

PARENT/GUARDIAN INFORMATION FORM
OKLAHOMA STATE UNIVERSITY

Project Title: THE EFFECT OF FFA CAREER AND LEADERSHIP DEVELOPMENT PARTICIPATION AND COACHES' COMPETENCY ON STUDENT MOTIVATION

Researchers:
Mason Jones
Graduate Teaching and Research Assistant
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University
mason.jones@okstate.edu

Dr. Marshall A. Baker, Advisor
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University
bakerma@okstate.edu

Purpose: The purpose of the research study is to explore and describe the outcomes of participation in a FFA career development event (CDE) on the career and academic motivation of students.

What to Expect: This research study is administered online. Participation in this research will involve completion of one questionnaire. The questionnaire will ask for basic information about your child's age, grade in school, and participation in FFA career development events. Your child may skip any questions that they do not wish to answer. Your child will be expected to complete the questionnaire once. It should take you about 40-60 minutes to complete.

Risks/Benefits: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

There are no direct benefits to your child. However, your child may gain an appreciation and understanding of how research is conducted.

Compensation: Participation in this questionnaire is not related to any student grade, and no compensation will be offered for completion. If the child chooses not to participate, they will receive no penalty, and may continue with their normal school schedule.

Your Child's Rights: Your child's participation in this research is voluntary. There is no penalty for refusal to participate, and they are free to withdraw their consent and participation in this project at any time.

Confidentiality: Your child's identity, as well as responses to the items in the questionnaire will be kept completely anonymous through an Anonymous link feature on the Qualtrics survey. Your child will not be asked any question that would reveal their identity, and all responses to the survey will be secured through password protection.

The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify your child. Research records will be stored on a password-protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records.

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Mason Jones, Agricultural Hall, Dept. of Agricultural Education, Communication, and Leadership, Oklahoma State University, Stillwater, OK 74078, 903-436-6155, mason.jones@okstate.edu. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

OPT-OUT INFORMATION

The dates of the study will be **March 26-April 13th, 2018**. If you **DO NOT** agree to allow your child to participate in this research, please have this form signed and returned to the teacher prior to **April 13th, 2018**. If you agree to allow your child to participate, you **DO NOT** need to sign this form. If you do not contact us by that date, your child will be presented the opportunity to participate in our survey. If you would like to view the survey questions, please contact Mason Jones at mason.jones@okstate.edu.

Name of Child:_____

Signature:_____

Date: _____

APPENDIX D

TEACHER EMAIL INVITATION 1

Teachers,

You are receiving this email because your FFA chapter registered students for the 2017 OSU FFA Interscholastic last year. As a researcher in agricultural education, I am interested in the outcomes of student participation in FFA Career Development Events.

I am asking for your students' participation in an online questionnaire pertaining to participation in FFA career development events. Completion of the questionnaire should take no more than 40 minutes.

If you and your school district choose to allow your students to participate in the study, please know that their participation is **strictly voluntary**, and they may opt out at any time.

An information form to be given to parents/guardians is also attached to this email. Please distribute the parent/guardian information form, which allows parents to choose for their child to opt-out of participation in the survey.

If you and your school district choose to participate, you will need to distribute and read the attached information form to your students, then you may display the link and/or QR code to the class. Students may complete the questionnaire using a computer or a smart phone. I would like you to help us administer the questionnaire to all of your students, regardless of participation, using this link: https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_b42ugMle4W8GNN3

You may also print or display this QR code for students to scan with their smart phone:

If you have any questions regarding the study, please contact Mason Jones at mason.jones@okstate.edu, (903) 436-6155.

APPENDIX E

TEACHER EMAIL INVITATION 2

Teachers,

As a follow up to our initial email, I would like to thank all of those that have already participated in the study. If you have not participated, we would appreciate you sharing this information with your students.

You are receiving this email because your FFA chapter registered students for the 2017 OSU FFA Interscholastic on April 28-29th, 2017. As a researcher in agricultural education, I am interested in the outcomes of student participation in FFA Career Development Events.

I am asking for your students' participation in an online questionnaire pertaining to participation in FFA career development events. Completion of the questionnaire should take no more than 50 minutes.

If you and your school district choose to allow your students to participate in the study, please know that their participation is **strictly voluntary**, and they may opt out at any time.
An information form to be given to parents/guardians is also attached to this email. Please distribute the parent/guardian information form, which allows parents to choose for their child to opt-out of participation in the survey.

If you and your school district choose to participate, you will need to distribute and read the attached information form to your students, word for word, then you may display the link and/or QR code to the class. Students may complete the questionnaire using a computer or a smart phone. I would like you to help us administer the questionnaire to all of your students, regardless of participation, using this link:
https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_b42ugMle4W8GNN3

You may also display this QR code for students to scan with their smart phone:

If you have any questions regarding the study, please contact Mason Jones at mason.jones@okstate.edu, (903) 436-6155.

APPENDIX F

TEACHER EMAIL INVITATION 3

Teachers,

Once again, thank you to those that have participated in our study about FFA Career Development Events. We would encourage those that have yet to participate to consider sharing the following information with their students.

You are receiving this email because your FFA chapter registered students for the 2017 OSU FFA Interscholastic on April 28-29th last year. As a researcher in agricultural education, I am interested in the outcomes of student participation in FFA Career Development Events.

I am asking for your students' participation in an online questionnaire pertaining to participation in FFA career development events. Completion of the questionnaire should take no more than 30-40 minutes. If possible, I am requesting that you share this with your students by the end of this week. (April 6th). I realize that many are not in school due to teacher walk-outs, but if you have students participating in FFA competitions this week, that would be a great time to share this opportunity with them.

If you and your school district choose to allow your students to participate in the study, please know that their participation is **strictly voluntary**, and they may opt out at any time.

An information form to be given to parents/guardians is also attached to this email. Please distribute the parent/guardian information form, which allows parents to choose for their child to opt-out of participation in the survey.

If you and your school district choose to participate, you will need to distribute and read the attached information form to your students, word for word, then you may display the link and/or QR code to the class. Students may complete the questionnaire using a computer or a smart phone. I would like you to help us administer the questionnaire to all of your students, regardless of participation, using this link:
https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_b42ugMle4W8GNN3

You may also display this QR code for students to scan with their smart phone:

If you have any questions regarding the study, please contact Mason Jones at mason.jones@okstate.edu, (903) 436-6155.

APPENDIX G

TEACHER EMAIL 4

Teachers,

This is your final reminder to consider taking part in our study of FFA Career Development Events. Please consider giving time for your students to complete our questionnaire. Thank you again to all that have already participated.

You are receiving this email because your FFA chapter registered students for the 2017 OSU FFA Interscholastic on April 28-29th, 2017. As a researcher in agricultural education, I am interested in the outcomes of student participation in FFA Career Development Events.

I am asking for your students' participation in an online questionnaire pertaining to participation in FFA career development events. Completion of the questionnaire should take no more than 50 minutes.

If you and your school district choose to allow your students to participate in the study, please know that their participation is **strictly voluntary**, and they may opt out at any time.

An information form to be given to parents/guardians is also attached to this email. Please distribute the parent/guardian information form, which allows parents to choose for their child to opt-out of participation in the survey.

If you and your school district choose to participate, you will need to distribute and read the attached information form to your students, word for word, then you may display the link and/or QR code to the class. Students may complete the questionnaire using a computer or a smart phone. I would like you to help us administer the questionnaire to all of your students, regardless of participation, using this link:
https://okstatecasnr.az1.qualtrics.com/jfe/form/SV_b42ugMle4W8GNN3

You may also display this QR code for students to scan with their smart phone:

If you have any questions regarding the study, please contact Mason Jones at mason.jones@okstate.edu, (903) 436-6155.

APPENDIX H

QUALTRICS© QUESTIONNAIRE

Instructions Page

PARTICIPANT INFORMATION
OKLAHOMA STATE UNIVERSITY

Title: The Outcomes of Participation in a FFA Career Development Event

Investigators:
Mason Jones
Graduate Teaching and Research Assistant
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University

Dr. Marshall A. Baker, Advisor
Department of Agricultural Education, Communications, and Leadership
Oklahoma State University

Purpose: The purpose of the research study is to explore and describe the outcomes of participation in a FFA career development event (CDE) on the career and academic motivation of students.

What to Expect: This research study is administered online. Participation in this research will involve completion of one questionnaire. The questionnaire will ask for basic information about your age, grade in school, and participation in career development events. You may skip any questions that you do not wish to answer. You will be expected to complete the questionnaire once. It should take you about 40-60 minutes to complete.

Risks: There are no risks associated with this project which are expected to be greater than those ordinarily encountered in daily life.

There are no direct benefits to you. However, you may gain an appreciation and understanding of how research is conducted.

Compensation: Participation in this questionnaire is not tied to any grade, and no compensation will be offered for completion. If you choose not to participate, you will receive no penalty, and may continue with your normal school schedule.

Your Rights and Confidentiality: Your participation in this research is voluntary. There is no penalty for refusal to participate, and you are free to withdraw your consent and participation in this project at any time.

Confidentiality: Your identity, as well as your responses to the items in the questionnaire will be kept completely anonymous through an Anonymous link feature on the Qualtrics survey. You will not be asked any question that would reveal your identity, and all responses to the survey will be secured through password protection.

The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored on a password protected computer in a locked office and only researchers and individuals responsible for research oversight will have access to the records.

Contacts: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Mason Jones, Agricultural Hall, Dept. of Agricultural Education, Communication, and Leadership, Oklahoma State

University, Stillwater, OK 74078, 903-436-6155, mason.jones@okstate.edu. If you have questions about your rights as a research volunteer, you may contact the IRB Office at 223 Scott Hall, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

If you choose to participate: Please, click NEXT if you choose to participate. By clicking NEXT, you are indicating that you freely and voluntarily and agree to participate in this study.

It is recommended that you print a copy of this consent page for your records before you begin the study by clicking below.

Demographics

What is your school name?

What is your grade in school?

- 9th Grade
- 10th Grade
- 11th Grade
- 12 Grade
- Post-Secondary
- No answer

What is your sex?

- Male
- Female
- No answer

Did you participate in the 2017 OSU State CDE Interscholastic?

- Yes
- No
- No Answer

Did Not Participate in 2017

Why did you not participate in the 2017 OSU State CDE Interscholastic?

- It was not interesting to me.
- I do not like competitions
- I did not know about it.
- I wasn't given the opportunity to go.

I had a conflicting event.

I wasn't in FFA at the time

Other

What conflicts prevented your participation in a career development event?

family responsibility

lack of transportation

was not granted permission by parent or guardian

work

other school or club activities

Other-Please specify:

Have you ever previously participated in a career development event?

Yes

No

Are you interested in a career related to agriculture?

Definitely yes

Probably yes

Might or might not

Probably not

Definitely not

Are you interested in participating in a FFA career development event in the future?

Definitely yes

Probably yes

Might or might not

Probably not

Definitely not

What FFA career development event would you be most interested in?

Agricultural Communications

Agricultural Education

Agricultural Issues Forum

Agricultural Technology and Mechanical Systems

Agricultural Sales

- ◯ Agronomy
- ◯ Animal Science Quiz Bowl
- ◯ Conduct of Chapter Meetings (Jr. Parliamentary Procedure)
- ◯ Dairy Cattle Evaluation
- ◯ Electricity
- ◯ Employment Skills (Previously Job Interview)
- ◯ Entomology
- ◯ Farm and Agribusiness Management
- ◯ Floriculture
- ◯ Food Science and Technology
- ◯ Forestry
- ◯ Freshman Agriscience Quiz Bowl
- ◯ Homesite Judging
- ◯ Horse Evaluation
- ◯ Land Judging
- ◯ Livestock Evaluation
- ◯ Marketing Plan
- ◯ Meats Evaluation
- ◯ Milk Quality and Products
- ◯ Nursery/Landscape
- ◯ Senior Parliamentary Procedure
- ◯ Poultry Evaluation
- ◯ Prepared Public Speaking
- ◯ Soil and Water Conservation
- ◯ Rangeland Judging
- ◯ Veterinary Science

CDE Experience

How many years have you participated in a Career Development Event?

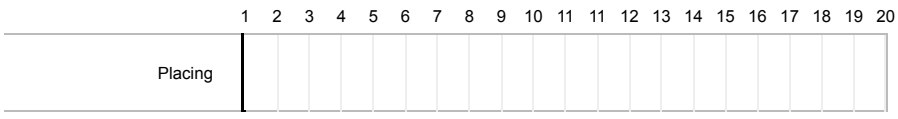
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

What CDE did you participate in last year's 2017 State OSU Interscholastic? (***If you participated in more than one, select the event most important to you***)

- ◯

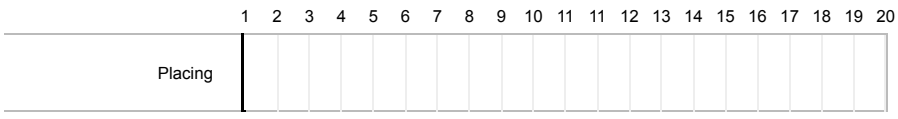
- Agricultural Communications
- Agricultural Education
- Agricultural Issues Forum
- Agricultural Technology and Mechanical Systems
- Agricultural Sales
- Agronomy
- Animal Science Quiz Bowl
- Conduct of Chapter Meetings (Junior Parliamentary Procedure)
- Dairy Cattle Evaluation
- Electricity
- Employment Skills (Previously Job Interview)
- Entomology
- Farm and Agribusiness Management
- Floriculture
- Food Science and Technology
- Forestry
- Freshman Agriscience Quiz Bowl
- Homesite Judging
- Horse Evaluation
- Land Judging
- Livestock Evaluation
- Marketing Plan
- Meats Evaluation
- Milk Quality and Products
- Nursery/Landscape
- Senior Parliamentary Procedure
- Poultry Evaluation
- Prepared Public Speaking
- Soil and Water Conservation
- Rangeland Judging
- Veterinary Science

How did your CDE team place at OSU Interscholastic last year (2017)?

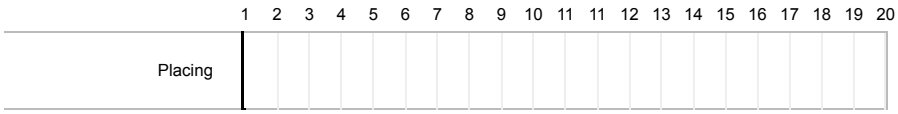


- Agricultural Communications
- Agricultural Education
- Agricultural Issues Forum
- Agricultural Technology and Mechanical Systems
- Agricultural Sales
- Agronomy
- Animal Science Quiz Bowl
- Conduct of Chapter Meetings (Junior Parliamentary Procedure)
- Dairy Cattle Evaluation
- Electricity
- Employment Skills (Previously Job Interview)
- Entomology
- Farm and Agribusiness Management
- Floriculture
- Food Science and Technology
- Forestry
- Freshman Agriscience Quiz Bowl
- Homesite Judging
- Horse Evaluation
- Land Judging
- Livestock Evaluation
- Marketing Plan
- Meats Evaluation
- Milk Quality and Products
- Nursery/Landscape
- Senior Parliamentary Procedure
- Poultry Evaluation
- Prepared Public Speaking
- Soil and Water Conservation
- Rangeland Judging
- Veterinary Science

How did your CDE team place at OSU Interscholastic last year (2017)?



How did you place as an individual at OSU Interscholastic last year (2017)?



Are you interested in a career within the agriculture industry?

- ◯ Definitely yes
- ◯ Probably yes
- ◯ Might or might not
- ◯ Probably not
- ◯ Definitely not

Are you interested in a career related to the CDE you participated in?

- ◯ Definitely yes
- ◯ Probably yes
- ◯ Might or might not
- ◯ Probably not
- ◯ Definitely not

Are you interested in participating in a FFA career development event in the future?

- ◯ Definitely yes
- ◯ Probably yes
- ◯ Might or might not
- ◯ Probably not
- ◯ Definitely not

ARCS CIS

For each statement below, select the response that best characterizes how you feel about the statement, where 1=Not true, 2=Slightly true, 3=Moderately true, 4=Mostly true, 5=Very true.

	Not true	Slightly true	Moderately true	Mostly true	Very true
1. The advisor knew how to make us feel excited about the subject matter of this CDE.	◯	◯	◯	◯	◯
2. The things I have learned in this CDE will be useful to me.	◯	◯	◯	◯	◯
3. I felt confident that I could do well in this CDE.	◯	◯	◯	◯	◯

4. This CDE had very little in it that grabbed my attention.	○	○	○	○	○
5. The advisor made the subject matter of this CDE seem important.	○	○	○	○	○
6. You have to be lucky to get good scores in this CDE.	○	○	○	○	○
7. I had to work too hard to succeed in this CDE.	○	○	○	○	○
8. I did NOT see how the content of this CDE related to anything I already knew.	○	○	○	○	○
9. Whether or not I succeeded in this CDE was up to me.	○	○	○	○	○
10. The advisor created suspense when teaching key points in this CDE.	○	○	○	○	○
11. The subject matter of this CDE was just too difficult for me.	○	○	○	○	○
12. I felt that this CDE gave me a lot of satisfaction.	○	○	○	○	○
13. In this CDE, I tried to set and achieve high standards of excellence.	○	○	○	○	○
14. I felt that the scores or other recognition I received were fair compared to other students.	○	○	○	○	○
15. The students in this CDE seemed curious about the subject matter.	○	○	○	○	○
16. I enjoyed working in this CDE.	○	○	○	○	○
17. It was difficult to predict what score the official would give my performance.	○	○	○	○	○
18. I was pleased with the official's evaluation of my work compared to how well I thought I did.	○	○	○	○	○
19. I felt satisfied with what I was getting from this CDE.	○	○	○	○	○
20. The content of this CDE related to my expectations and goals.	○	○	○	○	○
21. The advisor did unusual or surprising things that were interesting.	○	○	○	○	○
22. The competitiors actively participated in this CDE.	○	○	○	○	○
23. To accomplish my goals, it was important that I did well in this CDE.	○	○	○	○	○
24. The advisor used an interesting variety of training techniques.	○	○	○	○	○
25. I do NOT think I will benefit much from this CDE.	○	○	○	○	○
26. I often daydreamed while in this CDE.	○	○	○	○	○
27. As I was taking this CDE, I believed that I could succeed if I tried hard enough.	○	○	○	○	○
28. The personal benefits of this CDE were clear to me.	○	○	○	○	○
29. My interest was often sparked by the questions asked or the problems given on the subject matter in this CDE.	○	○	○	○	○
30. I found the difficulty in this CDE to be about right: neither too easy not too hard.	○	○	○	○	○
31. I felt rather disappointed with this CDE.	○	○	○	○	○
32. I felt that I got enough recognition of my performance in this CDE with scores, comments, or other feedback.	○	○	○	○	○
33. The amount of work I had to do was appropriate for this type of CDE.	○	○	○	○	○
34. I got enough feedback to know how well I did.	○	○	○	○	○

Self Efficacy Scale

Based on my participation last year,

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I was a success	○	○	○	○	○
I did poorly	○	○	○	○	○
I left disappointed	○	○	○	○	○
I was proud of my performance	○	○	○	○	○
I left feeling good about myself	○	○	○	○	○
I am unhappy with how I performed	○	○	○	○	○
I performed well in the event	○	○	○	○	○

Coaching Competency Scale

How competent is your FFA advisor in his or her ability to-

	Not at all competent 0	1	2	3	4	5	6	7	8	Extremely Competent 9
help students maintain confidence in themselves?	○	○	○	○	○	○	○	○	○	○
mentally prepare his/her students for contest strategies?	○	○	○	○	○	○	○	○	○	○
instill an attitude of good moral character?	○	○	○	○	○	○	○	○	○	○
build the self-esteem of his/her students?	○	○	○	○	○	○	○	○	○	○
demonstrate the skills of the contest?	○	○	○	○	○	○	○	○	○	○
motivate his/her students?	○	○	○	○	○	○	○	○	○	○
build teamwork?	○	○	○	○	○	○	○	○	○	○
promote an attitude of of fair competition among his/her students?	○	○	○	○	○	○	○	○	○	○
coach individual students on technique?	○	○	○	○	○	○	○	○	○	○
build the self-confidence of his/her students?	○	○	○	○	○	○	○	○	○	○
develop students' abilities?	○	○	○	○	○	○	○	○	○	○
recognize talent in students?	○	○	○	○	○	○	○	○	○	○
promote good sportsmanship?	○	○	○	○	○	○	○	○	○	○
detect skill errors?	○	○	○	○	○	○	○	○	○	○
teach the skills of the contest?	○	○	○	○	○	○	○	○	○	○
build team confidence?	○	○	○	○	○	○	○	○	○	○
promote an attitude of respect for others?	○	○	○	○	○	○	○	○	○	○

.

VITA

Mason Clay Jones

Candidate for the Degree of

Master of Science

Thesis: IMPACT OF PARTICIPATION IN FFA CAREER DEVELOPMENT EVENTS AND COMPETENCY OF COACHES ON STUDENTS' MOTIVATION

Major Field: Agricultural Education

Biographical:

Education:

Completed the requirements for the Master of Science in Agricultural Education at Oklahoma State University, Stillwater, Oklahoma in May, 2018.

Completed the requirements for the Bachelor of Science in Agricultural Education at Oklahoma State University, Stillwater, OK in 2011.

Experience:

- Graduate Teaching and Research Assistant in the Department of Agricultural Education, Communications, and Leadership at Oklahoma State University, Stillwater, Oklahoma from July 2016-Present
- Agricultural Education Instructor at Edmond Public Schools, Edmond Oklahoma from July 2012-June 2016
- Agricultural Education Instructor at Harrah Public Schools, Harrah, Oklahoma from July 2011-June 2012

Professional Memberships:

- American Association of Agricultural Educators