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Exploring Motivational Strategies, Outcomes, and Theories within the Career Development Event Preparation Process

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Abstract

Due to the competitive nature of Career Development Events (CDEs), teachers must utilize various instructional and motivational strategies to engage students and encourage student participation. This qualitative intrinsic case study analyzed the motivational practices of a previously successful agriculture education teacher to determine the motivational strategies and the underlining motivational theories utilized during the CDE preparation process. Researchers conducted field observations and interviews during CDE practices. The teacher employed numerous motivational strategies to improve the motivation and preparation of the CDE teams. The teacher's motivational strategies can be aligned to the theories of self-determination theory (SDT), expectancy-value theory (EVT), goal setting, and mastery goal orientation. Through this analysis, the researchers developed a visual model to align the progress of motivation and preparation, theories, related strategies, and subsequent student outcomes. Teachers should use the findings to reflect on their current CDE motivational practices, determine how their strategies align with the visual model and develop a set of motivational strategies to achieve the desired student outcomes within the CDE preparation process. More research should be conducted to better understand the use of motivational strategies and theories within the CDE preparation process.

***Keywords*:** career development events; CDEs; CDE preparation; motivational strategies; motivational theories

Introduction

School Based Agricultural Education (SBAE) teachers fulfill a variety of roles and responsibilities when engaging students in the three-component model. Within the model, Career Development Events (CDEs) are academically based competitions where students apply knowledge gained through their participation in SBAE classes and other program components. Research indicates that facilitating and preparing Career Development Event (CDE) teams has been noted as a trademark of effective agriculture teachers (Roberts & Dyer, 2004). SBAE teachers spend approximately 10% of their time preparing CDE teams (Torres, Ulmer, & Aschenbrener, 2008), and CDE preparation falls within the top ten out of the 21 identified responsibilities SBAE teachers fulfill (Terry & Briers, 2010).

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Although the primary responsibility of SBAE teachers is to teach classroom or laboratory-based content, CDEs involve learning content in a more non-formal setting and competing either individually or on teams. As such, SBAE teachers transition into the role of a coach (Terry & Briers, 2010), and teachers must acknowledge the additional contextual responsibilities which come when the competition is incorporated in the learning process. Furthermore, due to the combination of learning and competition, teachers need to employ motivational strategies while preparing CDE teams (Terry & Briers, 2010). Previous research indicates teachers used the following to motivate students and shape team success: emphasizing the tradition and success of the chapter, providing opportunities for students to compete, developing life skills, providing opportunities for students to have fun, actively seek out members who show potential to do well, and making CDEs an integral part of the curriculum (Russell, Robinson, & Kelsey, 2009). Additionally, Phipps, Osborne, Dyer, and Ball (2008) state, "the competition of a CDE makes learning fun … and … when students are having fun, yet experiencing a felt need to learn, motivation to learn increases and leadership skills develop" (p. 407). Thus, teachers need to utilize motivational strategies when preparing CDE teams to increase student engagement and learning.

Teachers apply a wide range of CDE-specific strategies when preparing teams from social support and situational consideration (Falk, Masser, & Palmer, 2014), to expectations, goals, support, and a positive environment (Voigt, Talbert, McKinley, & Brady, 2013), and alertness, friendship, intentness, competitive greatness, cooperation, and initiative (Bowling & Torres, 2010). Researchers need to conduct further investigations related to the use of specific motivational strategies and the underlying motivation theories due to the lack of breadth and depth of identifying motivational CDE preparation strategies.

Scholarly research develops empirically supported theories, and it is undeniable that educational strategies are deeply rooted in theory. However, these theories are rarely maintained through the teacher preparation process and are seldom at the forefront of the teachers' minds when they select and use their strategies (Cole & Knowles, 1993; Zeichner & Tabachnick, 1981). Thus, a disconnect exists between the teachers' practices and the research trying to influence their practices. Agriculture teachers and the CDE preparation process are not immune to this disconnect between practice and theory. A connection between motivational theory usage and CDE preparation can help teachers to see where their current strategies lie and what gaps are present in their current preparation practices. Although the theory-to-practice gap cannot be fully closed, this study helps to bridge the CDE motivational practices closer to the research-supported theories.

Conceptual Framework/Philosophical Assumptions

Motivation is a phenomenon that can be applied to numerous areas of social science, including education. Contemporary theories of motivation utilized within education share many common themes: (a) motivation involves cognitions, behaviors, and affects; (b) learners construct their motivational beliefs; (c) motivation is reciprocally connected to learning, achievement, and self-regulation; (d) motivation contains personal, social, and contextual variables; (e) motivation changes as the individual develops; and (f) motivation reflects differences among individuals, groups, and cultures (Schunk, Meece, & Pintrich, 2014). The common themes of motivation help to frame the notion that motivation underlines human behavior (Schunk et al., 2014).

Many motivational theories inform educational processes included but not limited to expectancy-value theory (Wigfield & Eccles, 2002), self-determination theory (Ryan & Deci, 2002), achievement goals (Ames, 1992), and goal setting (Locke, 1996; Weinberg, 2010). Operational definitions of the motivational theories are provided to highlight potential components of the conceptual framework, related to expectancy-value theory (EVT), Wigfield and Eccles (2002) state that the two

highest indicators of achievement motivation are expectations for success and subjective task value. This study viewed extrinsic motivation, intrinsic motivation, and psychological needs through the lens of SDT; (Ryan & Deci, 2002). Extrinsic motivation is engaging in a task due to a stimulus entirely outside of the task itself (Ryan & Deci, 2002). Intrinsic motivation is engaging in a task for sheer enjoyment or interest in it (Ryan & Deci, 2002). Ryan and Deci (2002) consider the psychological needs of autonomy, relatedness, and competence to be universal and innate needs, which all humans strive to meet and maintain. The need for competence is not specifically skill attainment but is instead the confidence one has to complete a specific task or goal successfully (Ryan & Deci, 2002). Relatedness is being cared for, caring for others, and having a sense of belonging (Ryan & Deci, 2002). Autonomy is a belief regarding the origin of one's actions or behaviors (Ryan & Deci, 2002). Goal setting is the specific process of developing and utilizing goals to achieve a set objective (Locke, 1996; Weinberg, 2010). Mastery goal orientation is when individuals are driven to pursue challenges, learns to develop their understanding further, and strives to develop their skills further (Ames, 1992).

The shared motivational themes, the influence motivational processes have on human behavior, and motivational theories that potentially influence educational processes served as the conceptual framework for this study. The conceptual framework guided the data collection process and served as a lens for data analysis. Additionally, we utilized a constructivist philosophical approach to allow for the complete emergence of the motivational strategies and the associated motivational theories used in CDE preparation. Further, the constructivist approach positioned us within the context of the study and allowed for meaning to emerge from the participants' responses.

Purpose and Research Questions

The purpose of this study was to identify the motivational strategies utilized by an exemplary teacher when preparing CDE teams. Additionally, this study sought to identify the underlined motivational theories and outcomes that align with motivational strategies. The following questions drove this investigation:

1. What motivational strategies are utilized when preparing CDE teams?
2. How do the emerging motivational strategies align with empirically supported motivational theories and potential student outcomes?

Methods

This study utilized a qualitative intrinsic case design (Stake, 1995). The intrinsic case was the exploration of student motivational strategies used by a teacher with a previous exemplary track record of winning multiple state and national CDEs. The case of interest was a Midwestern, suburban multi-teacher SBAE program. Various high schools within the town housed the SBAE program, and the roster maintains approximately 500 students and 100 FFA members. The agricultural courses offered within the program were stand-alone and semester-based, which allowed students to move in and out of the program throughout their high school experience. The program courses offered centered around a traditional agricultural curriculum within the areas of animal science, plant science, conservation, and agricultural mechanics. The particular teacher investigated has more than 25 years of teaching experience and has prepared 31 state and national championship teams. He was purposively selected due to his exemplary experience and because he prepares approximately three to five CDE teams a year, encompassing a wide range of CDE content areas. Additionally, many of the CDE participants engaged in multiple CDEs throughout high school, which could potentially show CDE specific motivation.

Data Collection

Within this intrinsic case, we observed the teacher for 16 weeks while preparing 12 students who comprised two plant science based CDE teams. During initial data collection, we developed an interview protocol asking general questions such as "Why did you decide to join the [CDE name] team?" and "What has this experience been like for you?" Following each round of data collection, we developed a new protocol based on the research questions and emerging themes aligning with contemporary motivational theories. We collected data through 46 on-site student interviews. Additionally, we conducted three teacher interviews and one administrator interview in an attempt to triangulate data by capturing data from diverse sources. We audio-recorded and transcribed verbatim all interviews.

Additionally, we logged 36 hours of field observations. The field observations focused on identifying strategies utilized by the SBAE teacher throughout the CDE preparation process. We also analyzed CDE artifacts such as study materials, motivational materials (former championship jackets, awards, posted goals, etc.), and an online statistical scoring system. We utilized these artifacts to develop some questions for subjects following initial data collection. Finally, we conducted reflective observations of the student teams during the state-level CDEs.

Data Analysis

The entire data analysis process included four rounds of analysis that transformed data into codes, categories, themes, and subthemes. The research questions guided the open coding phase. The analysis process allowed the data to emerge from the case. The data were open coded for motivational strategies to allow for complete emergence. We then categorized the motivational codes and allowed themes to emerge.

Each data source was given a specific emphasis level during data analysis, the student interviews were the primary data source, and the field observations were the auxiliary data source. The teacher interviews, an administrator interview, and CDE artifacts were all tertiary data sources. The primary and auxiliary data sources were utilized to allow for the emergence of the codes, categories, themes, and subthemes. The tertiary data sources were utilized to support the emerging themes and subthemes.

We used the constant comparative method for data analysis (Glaser & Strauss, 1967). The themes of fostering initial student engagement, fostering motivation within the beginning stages of preparation, and intrinsic motivational shift with mastery preparation focus emerged, and we reanalyzed the data to develop the subthemes. From the emerging themes and subthemes, we developed a visual model in which subsequent motivational theories aligned with the identified motivational strategies. The visual model was used as a graphic representation of the connection between theories, strategies, and outcomes, not as a substantive model or theory.

We operated under an interpretivist epistemology and a constructivist philosophical approach. We were prior SBAE teachers and had previously studied motivational theories, and we acknowledged the need to set aside biases. The study design upheld dependability and conformability through triangulation of data sources, comparison of emerging themes and subthemes, and maintenance of a continuous coding audit trail (Lincoln & Guba, 1985). We used thick, rich descriptions to uphold transferability (Lincoln & Guba, 1985). Peer debriefing, teacher and student member checking, and investigator triangulation at various stages in the research helped to establish credibility (Lincoln & Guba, 1985).

Findings

Within the case study, several motivational strategies emerged. We have reported the findings as themes within the progression of motivation and preparation that emerged within the case. The progression of motivation and preparation included three themes and five subthemes. Additionally, we developed a visual model to display the connection of the motivational progression, theories, strategies, and potential outcomes.

Theme 1: Fostering Initial Student Engagement

Within the case study, the teacher utilized specific and calculated strategies to foster student engagement and construct his various CDE teams. In order to encourage potentially successful students to participate, the teacher expressed his high expectations of the students, sought out students who valued the CDE content and competition and utilized extrinsic motivators.

Before CDE practices started, the teacher discussed that he sought out students whom he believed would be successful and encouraged them to participate in particular teams. He sought out students whom he believed "were motivated and would work well together." The teacher further discussed, “I’m not sure there is a typical kid…it’s a kid who shows interest…show[s] some level of dedication.” Being initially identified by the teacher was encouraging and motivating to the students. Cory stated that “It makes you feel pretty special whenever one of the teachers comes up to you and asks you if you want to be a part of the team because they know your ability or your potential to do well.” Through the field observations, it emerged that every so often, the teacher reminded the students that he sought them out because he believed they would be successful. It is important to note that the teacher did not specifically define success as winning, but rather a holistic view of students being dedicated to the learning process to meet their desired goals. Through this purposeful encouragement, the teacher sought out students who valued the CDE content material and also valued competition to a degree. In the interviews, the teacher discussed that he sought out students who enjoyed and were pushed by competition but not so driven by competition that they only focused on winning and not the learning process. The valuing of the content and competition helped to motivate students and increase the students’ expectations for success.

At the beginning of the CDE season, the teacher sought out six to eight individuals for each team, while only four can compete at the district level. This large number of team members increased the competition among the team and increased the students’ external motivation to study and practice. Steve said, "Going into it, we knew there was only going to be four out of the six of us going, and we all knew somewhere somebody we going to get cut." Additionally, numerous students discussed how their family (parents and siblings), friends, and other agriculture teachers encouraged them to participate in CDEs. These individuals served as additional external factors during the initial engagement of students into CDE teams.

Theme 2: Fostering Motivation within the Beginning Stages of Preparation

It emerged within the case study that as the teacher and CDE teams began the preparation process, the teacher utilized specific motivational strategies to foster student motivation. To do so, the teacher assisted in the development of student expectations and goals, utilized extrinsic motivation strategies, and supported the needs of students to begin the development of intrinsic motivation.

Subtheme 1: Continued Development of Expectations and Goals

Following the initial engagement of students, the teacher expressed his high expectations for the students and the teams. He was observed during one of the first practices discussing, "the will proceed to state," as a way to set his expectations that successful students are determined and do not let failure set them back. In the same conversation, the teacher also laid out an example of an unsuccessful CDE participant. Beyond discussing the teachers' expectations, he encouraged the students to develop their own expectations and goals. During the preparation process, the students' self-expectations for success were very evident. Numerous times we observed students saying, "We expect to be good."

Moreover, due to their expectations, experiencing failure did not hinder the students. Whether it was a failure at practice, during a practice contest, or at the actual competition, the students did not get frustrated but instead learned from the experience. Steve said, regarding the failure of not making the team the previous year, "I mean it was a good learning experience, and I'm actually kind of glad I didn't make the team, cause I came back and was quite successful." Even after the students experienced setbacks, their expectations for success continued their desire to work hard both in and out of practice. Additionally, both the teacher and students discussed the influence that the rich tradition of success attained by the chapter's previous CDE teams had on their expectations. The more than 30 state and national plaques displayed on the classroom wall represented this rich tradition. Much like the teacher expectations, the teacher did not force the tradition of success upon the students, and they were allowed to develop their own expectations.

At the beginning of the preparation process, it was observed that the teacher had students develop team and individual goals related to their expected level of success, stressing the importance of maintaining a written copy of their goals. The team never discussed the individual and team goals, but the students kept the written goals with their study materials. The students used their study materials during practice at both home and school, so the goals were regularly visible. The teacher stated that the developed goals would help him determine how hard and how much to "push" the students. Steve said, "I think you know they [the team and teacher] then make it our goal, if we want to win, then we gotta work to win." Throughout the CDE preparation process, if students were not meeting the level of expectations of their goals, the teacher would have the students revisit their goals. As a result, either the students would reassess their goals if they were not willing to put in the study time needed to meet them or the students would keep their current goals and increase their performance to meet them. Goal setting was an essential part of the CDE preparation process.

Subtheme 2: Continued Utilization of External Motivators

The teacher utilized extrinsically driven motivational strategies heavily towards the beginning of the preparation process. As the students' experience and knowledge progressed, the teacher utilized extrinsic strategies progressively less. The teacher offered various external physical rewards for individual/team successes. Examples of such external physical rewards included (a) members receiving an embroidered Carhartt jacket if the team won the state competition, (b) receiving food and drink for correct answers or successful practices, (c) earning a $1,000 scholarship if they place within the top five individuals at the state completion, and (d) earning a trip to the national competition at the National FFA Convention. Additionally, students were extrinsically motivated through others. Cory discussed being motivated to participate and win since his brother went to nationals on a CDE team. Cory stated, "So it's kind of a competition between us, and it's kind of hard to beat him." The teacher was also observed using peer teaching when preparing teams, and through peer teaching, the team members motivated each other. Through the utilization of peer teaching, the teacher created a team atmosphere where competition not only thrived between the team members but also created a collective form of competition that allowed the team members to push one another. Stacy said, "And since you have competition within your own team too, you want to go to practice and kind of prove yourself."

Further, students were motivated through external emotional rewards. Students found motivation in the fun, caring environment created by the teacher. The teacher also used humor throughout the practices to motivate students. Additionally, the teacher gave high fives and fist bumps to encourage and motivate. Kyle stated, "He's [teacher] always either ribbing us or telling us good job, giving us high fives and stuff." Through the use of emotional rewards, the teacher was able to enhance students' self-worth and ego.

Subtheme 3: Supporting Student Needs to Foster Intrinsic Motivation

Within the case study, the teacher utilized a variety of strategies to support the CDE participants' needs of autonomy, relatedness, and competence and to foster intrinsic motivation. The teacher met the need for autonomy through the use of self-selected work time. During certain practices, the teacher would allow students the freedom to choose what they wanted to/needed to study, and theoretically, this translates to meeting the autonomy needs of the students. The teacher would shift the locus of control from himself to the students and would have the students determine what would be taught during the CDE practices. During the early parts of the preparation process, the teacher was the primary control focus as the expert who had to develop the novice students' understanding of the information. As the students became experts in their respected CDE areas, the teacher relinquished his control, and the students selected the content to study and how they wanted to study it. The process of shifting the locus of control increased student autonomy, thus fulfilling students' psychological need for it.

Additionally, students were encouraged but not forced to study CDE materials outside of practice hours. Cory said, "You can choose whether to do it or not to do it depending on if you have time commitments. But once you get started, it's hard to not do it." This quote illustrates the essential concept of choice in autonomy as a motivator.

The CDE activities met the students' need for competence through students developing confidence related to their ability within their CDE area. Once the students "made the cut" to be on the team, they felt as if they had developed enough competence to succeed. Kyle said, "If I can make it on a team, it'd be a great accomplishment because [the chapter] is really well-known." When learning about and preparing for the CDE, students developed competence related to the specific practical and content knowledge associated with the CDE. Allen stated, "It's practical skills that you can use a lot later on in life." Furthermore, the students indicated that they could apply this knowledge to current jobs and future career areas and that knowledge inherently made them feel like more competent future professionals. Additionally, the teacher regularly connected knowledge from the formal curriculum in the agricultural classes to the CDE content to engage their prior knowledge and increase competence.

The team atmosphere of CDEs met the students' need for relatedness. Students felt like they "fit in" within the agricultural education department and felt like they were a part of a team when they participated, "because you get really close to your teammates." Further, the students developed friendships while on the teams. Kate, who first identified herself as an outsider within the agricultural education department, felt like a member of the group when she participated in CDEs: "I didn't really care that I didn't make the team necessarily because I got a lot of great experience just hanging out with my friends." Students also felt being on a CDE team gave them social acceptance, such as having a place within the high school where they felt "at home" and a place where they fit in with their peers.

Additionally, the students were able to meet students from different schools at various competitions. For example, the teacher discussed how the students formed friendships with other students from different schools in the area at local CDE competitions, which then later translated to connections in their future endeavors. In many instances, the data revealed that the teacher specifically used strategies geared toward developing relatedness. It was observed that throughout the CDE

practices, the teacher would ask the students about their day and would have personal non-CDE-related conversations with them. The teacher met an essential need for relatedness by forming personal connections with the students during CDE practices. Director Jones further supported the teachers connect to students, "…he [just] has that ability to connect with students." Additionally, the teacher would openly discuss the importance of team cohesiveness and praised the team for that attribute. In this instance, the teacher continually referred to the teams as a family.

Theme 3: Intrinsic Motivational Shift with Mastery Preparation Focus

As the students began to engage deeper in the CDE content, the teacher encouraged a shift within the students' motivation from being extrinsically driven to being intrinsically driven. In order to achieve the motivation shift, the teacher emphasized the importance of mastering the content rather than winning and utilized intrinsically driven motivational strategies.

Subtheme 1: Focusing Less on Winning and More on Mastery Level Learning

As the students progressed through the preparation process, the teacher emphasized the overall importance of the learning process. Regarding this process, Kyle said, "[We] just want to learn as much as we can." The students also discussed how learning increased their desire to succeed, "I try to get down to business and learn what you need to know so you can be successful in what you're doing." Additionally, the focus on learning was evident through the questioning strategies utilized by the teacher. Through the teacher's use of higher-order questioning, the students focused more on the learning and thinking process rather than winning or beating others. During the practices, the teacher would consistently ask the students to explain why the answers they provide are correct. This process helped to develop the students' understanding of CDE concepts and increased their learning performance.

Additionally, the teacher would also structure his teaching based on the students' level of mastery orientation; he stated, "[I] push them as hard as they want to be pushed." Furthermore, the students accepted and encouraged the academic challenges of the CDE competitions. Regarding wanting to compete at nationals, Cory stated, "It's pretty big because you're with the best competitors." Additionally, Kate stated regarding the challenge, "just experience of a challenge, if you can beat everyone else, how good your skills are. You see, if you learned enough." Beyond the challenge of the competitions, the students viewed the jackets they could receive for winning not as a symbol of victory but a symbol of their knowledge and skill development: "It [the jacket] just shows your knowledge and your accomplishments." Allen further stated, "Just knowing that all that knowledge is up there and that you are kind of diversifying yourself [by earning the jacket] and taking an investment in yourself and the knowledge that you know stuff."

Beyond the rewards, due to the mastery orientation of the students, they viewed making the team as an accomplishment, not as a besting of other individuals. Jake said, "But ultimately, in the end, with my competitive nature, I'd rather see the four-best move on if I'm part of that, great. If I'm not, I want to see the best four we have move on." The teacher also utilized specific strategies to focus more on the learning process rather than the correct answers. For example, when the students gave a wrong answer, the teacher would typically correct the wrong answers and try hard not to reprimand the students. Also, when students gave a wrong verbal answer, the teacher again tried not to reprimand them, so he would not discourage them from answering questions out loud. The teacher further developed the students' mastery orientation by encouraging them to "never cheat." To focus the attention and motivation toward the learning process and not on being compared to their peers.

Subtheme 2: Motivated through Intrinsic Drivers

As the students progressed and gained knowledge within their CDE content area, the teacher utilized more intrinsically based motivational strategies. The inherent structure of and the content within CDEs align with the students' self-schemas. Numerous CDE participants within this study identified themselves as individuals who enjoyed the outdoors and nature, and the type of CDE they participated in fulfilled this enjoyment. Additionally, students stated they enjoyed "ag stuff," and CDEs helped them continue their involvement in agriculture and develop agriculturally based skills. The skills students developed also connected to future career opportunities and future career self-schemas. Cory stated, "Like it's not just playing with a chicken, there are life lessons you can learn and career opportunities you can get out of it." The CDE content, environment, and skills directly aligned with the students' values, goals, and needs.

Within this intrinsic case, the students were also motivated intrinsically by the competitive nature and their interest in CDEs. The teacher was observed discussing the importance of competition with the teams and would tell them, "Competition will make you better." Amy stated regarding the competitive nature of CDEs, "I just want that competition." Within the preparation process, the teacher identified the need to connect the students to the competitive nature of CDEs to develop their interest in it. Beyond the competition, the CDE content and environment internally motivated the students to participate. Allen said, "This stuff interests me. Stuff outside of school, I'd probably be doing this anyway if I wasn't at practice." Director Jones further acknowledged the connection students feel, "That's the advantage of these types of programs and contests, is that is makes that connection [to future careers] and it makes it real for students." As the CDE preparation process progressed, the students began to internalize interest and enjoyment in both the competitive nature and content of CDEs.

Discussion

From the results of this study, we concluded that the teacher utilized a wide range of motivational strategies when preparing CDE teams, those strategies were a phased process throughout the CDE preparation process, and the nature of motivation changed throughout the process (see Figure 1). Within the phased process, specific motivational strategies utilized and student outcomes emerged. From the emerging strategies and outcomes, conclusions were guided by the conceptual framework and categorized by motivational theories.

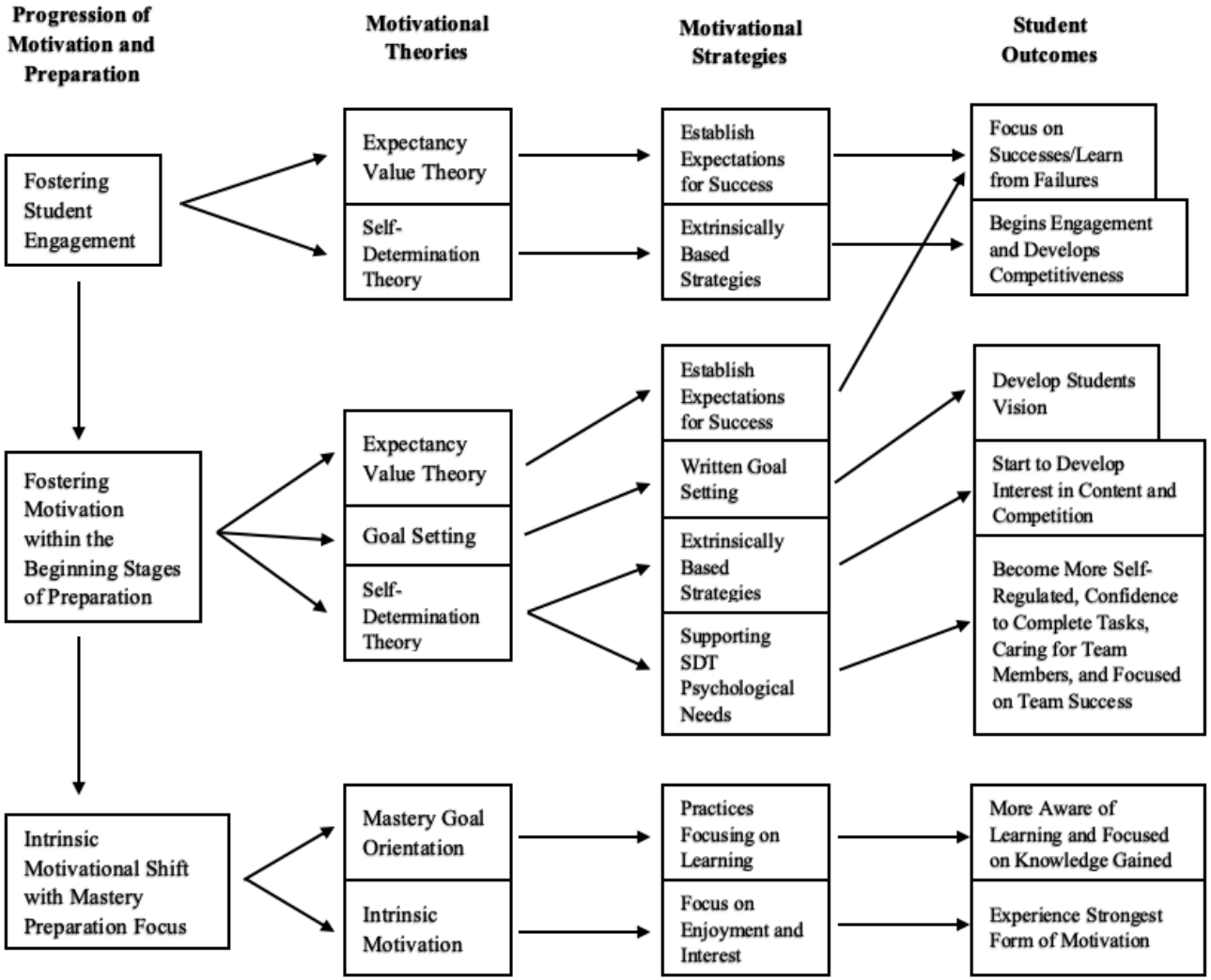

Figure 1. Alignment of Motivational Strategies and Theories within the Progression of Motivation and Preparation

As outlined in Figure 1, the integration of motivation began with how the teacher fostered initial student engagement. During the initial stages of engagement, and the CDE preparation process, the strategies, and outcomes seen were anchored within EVT and SDT. Within EVT, the teacher established expectations for success by providing positive encouragement while simultaneously establishing teacher and student expectations. Establishing expectations and providing positive encouragement initiated an environment where students began to focus on their defined idea of success and allowed for failure without fear. Related to SDT, the teacher utilized extrinsically based strategies to motivate students by outside individuals and motivated to make the team for the district competition. The experienced extrinsic motivation fostered the initial motivation for students to engage in CDEs and fostered student competitiveness.

As the CDE preparation process advanced, student motivation was further supported through a variety of motivational strategies. The teacher continued to draw strategies from the students' initial engagement, which aligned with EVT and SDT. However, as the initial motivation began to solidify, new strategies were also introduced, which associated with Goal Setting and supporting the psychological needs within SDT. Similar to the initial engagement, the teacher continued to emphasize expectations and student success, which encouraged students to continue to focus on success and learn from failures. Just as extrinsic strategies fostered the initial engagement in CDEs, the teacher utilized specific extrinsically based strategies to continue to build on the students' motivation. The extrinsic strategies focused on physical and emotional rewards, alignment of the CDEs to students' values, goals, and self-schemas, and motivation through positive competition. These strategies began to foster the students' interest in the CDE content and competition.

Related to goal setting, the teacher had the students developed written team and individual goals. He also utilized these goals as points of reflection to redirect behavior, effort, and motivation. The written goals helped the students develop their vision of success. As the CDE preparation process continued, the teacher utilized specific strategies to support the SDT psychological needs of competence, relatedness, and autonomy. To support competence, the teacher provided numerous opportunities for students to develop confidence and future application of CDE content. To foster relatedness, the teacher created an environment where students felt they belonged and utilized strategies to support student friendships. These strategies nurtured the students' compassion and caring for their team members and developed a focus on team success. In support of student autonomy, the teacher utilized student-centered learning and provided student choices within the learning process. The teacher also encouraged student autonomy by allowing the students to dictate the locus of control as they became experts in their content area. By experiencing autonomy support, the students became more self-driven and self-regulated CDE participants. Additionally, through the support of competence, relatedness, and autonomy, the teacher began to shift the motivational focus from being extrinsically to intrinsically driven.

Nearing the end of the CDE season, the motivational process shifted to focus on intrinsic motivation and mastery preparation. The conclusion of the CDE preparation motivational process related to Mastery Goal Orientation and intrinsic motivation. To support Mastery Goal Orientation, the teacher utilized strategies that focused more on learning rather than winning or besting others. These strategies allowed the students to be more aware of their learning and encouraged students to develop their learning strategies to advance their knowledge. To develop intrinsic motivation, the teacher emphasized the students' interests related to the CDEs. The teacher also created an environment where students truly enjoyed attending practices and engaging with their teammates. Due to the emphasis on interest and enjoyment, students became intrinsically driven and experienced the strongest form of motivation.

Although not explicitly diagramed out or written down by the teacher, the progression of motivation possessed motivational strategies that connected to various motivational theories. While he pointedly did not reference the theories directly, he knew and referenced "what worked" in practice. Further, his practical knowledge allowed him to utilize specific motivational strategies and related motivational theories to produce the desired student outcomes. Through his years of preparing successful CDE teams, the teacher developed a specific progression of motivation and preparation that transcended the variety of students on the CDE teams and the various CDE content areas prepared.

Implications and Recommendations

The visual model helps to align practical, motivational strategies and student outcomes through the connection of the emerging strategies to motivational theories. Potential student outcomes include developing expectations (Wigfield & Eccles, 2002), focusing on successes (Ames, 1992; Wigfield & Eccles, 2002), developing competitiveness, developing a vision (Locke, 1996; Weinberg, 2010), more self-regulated students (Ryan & Deci, 2002), increased confidence and skill development (Ryan & Deci, 2002), focusing on learning processes (Ames, 1992), and developing intrinsic motivation within the CDE context (Ryan & Deci, 2002). Teachers who knowingly utilize motivational strategies that are aligned to supported theories better recognize the potential student outcomes. Thus, they can utilize the appropriate strategies necessary in order to achieve the desired outcomes.

Beyond identifying empirically supported student outcomes, the findings begin the process of bridging the theory-to-practice gap. By bridging this gap, SBAE teachers can more easily access successful motivational strategies that are empirically supported. Teachers rarely seek out and investigate theories daily to improve practice; however, they do seek out strategies that support desired student outcomes. The findings can help SBAE teachers identify motivational theories and strategies which align with the potential student outcomes. Much like other human phenomena, context can profoundly influence motivation (Schunk et al., 2014). The visual model provides a map of how motivational theories and the aligned strategies can be utilized within the CDE context.

Due to the purposive sampling and negligible sample size, it is essential to address the limitations and lack of generalizability of the study. However, we recommend that SBAE teachers reflect on their current practices to determine how they align with the findings. It is also recommended that teachers reflect upon the alignment of theories, strategies, and outcomes and construct a set of motivational strategies that mirror the findings presented. It is further recommended that teachers reflect upon the strategies they utilize and how they align with empirically supported motivational theories. To maximize student motivation within CDE preparation, teachers should develop strategies that encourage students to join CDE teams while focusing on creating expectations and valuing the CDE content.

Teachers should also incorporate theory aligned strategies that (a) continue to develop high expectations for success, (b) develop written team and individual goals, (c) provide opportunities for student-centered learning and student choice, (d) develop confidence related to CDE-specific and life skills, (e) create a family atmosphere while fostering student friendships, and (f) utilize a variety of extrinsic motivators while shifting to more intrinsically based strategies to engage students and encourage participation while developing their want to focus on and improve their learning. Further, teachers should incorporate strategies which specifically emerged from this case such as, (a) create a learning environment where failure is accepted and viewed as a learning opportunity, (b) utilize peer teaching to enhance peer motivation, (c) create a fun and caring environment where relatedness can flourish, (d) align the level of student choice and control with the students' mastery of the content, and (e) establish expectations which challenging students. By utilizing these strategies, teachers can work toward and hopefully build to the students being intrinsically motivated and truly participating for the interest in and enjoyment of CDEs.

It is also recommended that professional development programs be developed that focus on motivational strategies utilized within CDE preparation. The professional development should guide teacher reflections regarding their current motivational practices/strategies and the perceived student outcomes. Following reflection, the teachers should be immersed in the emerging strategies.

Further research is needed to better codify the specific motivational strategies utilized by agriculture teachers when preparing CDE teams. This study should be replicated and expanded to determine whether the identified strategies of the current study apply to more SBAE programs and teachers. Additionally, the identified motivational strategies need to be investigated through a theoretical lens to understand their holistic connection and function within the process better. Additionally, quantitative studies need to be developed which examine the relationship between the motivational strategies utilized and the perceived level of student motivation. Additionally, studies need to investigate the relationship between the motivational strategies utilized and the success of the CDE team.

References

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, *84*(3), 261.

Bowling, A. B., & Torres, R. M. (2010). Frequency of coaching behaviors used by agricultural teachers in relation to the state Floriculture Career Development Event team rank. *Proceedings of the North Central Region AAAE Research Conference,* Manhattan, KS.

Cole, A. L., & Knowles, J. G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education, 9*(5-6), 457-471.

Creswell, J. W. (2013). *Qualitative inquiry and research design.* Los Angeles, CA: Sage.

Falk, J. M., Masser, D. T., & Palmer, H. R. (2014). Describing the relationship between coaching behaviors and student performance at the national FFA parliamentary procedure career development event. *Proceedings from the National AAAE Research Conference,* Snow Bird, UT.

Glaser, B. G., & Strauss, A. (1967). *Discovery of grounded theory: Strategies for qualitative research.* Chicago, IL: Aldine, Transaction.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Beverly Hills, CA: Sage.

Locke, E. A. (1996). Motivation through conscious goal setting. *Applied and Preventive Psychology*, *5*(2), 117–124.

Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball A. (2008). *Handbook on agricultural education in public schools* (6th Ed.)*.* Clifton, NY: Delmar.

Roberts, T. G., & Dyer, J. E. (2004). Characteristics of effective agriculture teachers. *Journal of Agricultural Education*, *45*(4), 82–95. doi: 10.5032/jae.2004.04082

Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016–2020.* Gainesville, FL: Department of Agricultural Education and Communication.

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.

Ryan, R. M., & Deci, E. L. (2002). An overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). Rochester, NY: University of Rochester Press.

Schunk, D. H., Meece, J. R., & Pintrich, P. R. (2014). *Motivation in education: Theory, research, and applications* (4th ed.). Harlow, England: Pearson Higher Ed.

Stake, R. E. (1995). *The art of the case study.* Thousand Oaks, CA: Sage.

Terry, Jr., R., & Briers, G. E. (2010). Roles of the secondary agriculture teacher. In R. M. Torres, T. Kitchel, & A. L. Ball, *Preparing and advancing teachers in Agricultural Education* (pp.86-98). Columbus, OH: The Ohio State University.

Torres, R. M., Ulmer, J. D., & Aschenbrener, M. S. (2008). Workload distribution among agriculture teachers. *Journal of Agricultural Education, 49*(2), 75-87. doi: 10.5032/jae.2008.02075

Vallerand, R. J., & Ratelle, C. F. (2002). Intrinsic and extrinsic motivation: A hierarchical model. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 37–63). Rochester, NY: University of Rochester Press.

Voigt, M. A., Talbert, B. A., McKinley, S., & Brady, C. M. (2013). Promising coaching practices of expert dairy, horse, and livestock career development event coaches: A qualitative study. *North American College and Teachers of Agriculture Journal*, *57*(2), 45–55.

Weinberg, R. (2010). Making goals effective: A primer for coaches. *Journal of Sport Psychology in Action*, *1*(2), 57–65.

Wigfield, A., & Eccles, J. S. (2002). The development of competence beliefs, expectancies for success, and achievement values from childhood through adolescence. *Development of achievement motivation* (pp. 91–120). San Diego, CA: Academic Press.

Zeichner, K. M., & Tabachnick, B. R. (1981). Are the effects of university teacher education 'washed out' by school experience? *Journal of Teacher Education, 32*(3), 7-11.