STUDENT PERCEPTIONS OF PREPARATION FOR AND THE BENEFIT OF FFA CAREER DEVELOPMENT EVENTS AND CLASSROOM PREPERATION AT THE STATE LEVEL

Abstract

The Virginia FFA Association strives to conduct its state Career Development Events (CDEs) and related activities in a manner similar to that of the National FFA Organization. The goals and guidelines that we put forward parallel those used nationally. The stakeholders within this study are the student members of the State FFA Association, teachers of agricultural education in Virginia, the Career and Technical Education Division of the Virginia Department of Education, and the Virginia FFA Advisory Council. The programs/activities that were evaluated in this study were the Virginia FFA State Career Development Events in an attempt to determine if the Virginia FFA is meeting the goals of the CDEs. The primary goal of a CDE is that the event and its respective awards should be relevant to the FFA and, according to national guidelines, "reflect instruction that currently take place in the entire agricultural education program including classroom instruction, laboratory instruction, individualized instruction, and/or a supervised agricultural experience (SAE)" (National FFA Organization, 2003, p. 4). The authority for ensuring the relevance of an FFA activity is vested in the Virginia FFA Advisory Council.

Introduction

The State FFA Association, as with the National Organization, "should promote individual, chapter, and team career development events and awards. Chapter and team CDEs and awards should be based on cooperation and teamwork while recognizing the value of competition and individual achievement. The role of the CDEs and awards is to motivate students and encourage leadership, personal growth, citizenship, and career development" (National FFA Organization, 2003, p. 4).

Students should be recognized for achievement in CDEs and awards. Quality standards should be used as a basis for achievement. The Virginia FFA Association should ensure that the recognition is appropriate and meaningful. "Recognition for achievement should be reflective of the total effort required by the chapter, team, and/or individual(s) and should take place at all levels of participation" (National FFA Organization, 2003, p. 4). State CDE award winners should be encouraged to participate at the national level. The integrity and high expectations for conducting and/or participating in CDEs should be consistently communicated to all the stakeholders involved.

The Virginia FFA Association encourages "accessibility and provides opportunities for achievement and recognition for students with diverse backgrounds" (National FFA Organization, 2003, p. 4). We currently offer student support in the form of reading assistance for tests and housing for handicapped students. Since the FFA is considered an integral part of the Agricultural Education program (PL 105-225), local school divisions are expected to provide accommodations for students wishing to participate in CDEs.

In Virginia, 23,000 students enrolled in an agricultural education course last year (National FFA Organization, 2004, p. 96). Roughly 2,000 students participate in a CDE at the state level, annually. Many of the CDEs utilize an elimination process that requires the student/team to win on the local, federation, and area levels before advancing to state level competition. The Virginia FFA Foundation currently raises the funds necessary to sponsor the state CDE winners' transportation and lodging expenses for national competition at the National FFA Convention. Virginia currently conducts 20 CDEs that have national level competition. Approximately 12 of the 20 second place teams/individuals are given a chance to compete at the Eastern Regional National Competition in Springfield, Massachusetts and the FFA Foundation tries to assist with transportation for these teams/individuals. Virginia also conducts 15 state CDEs that do not have national level events.

On review, the existing literature on the topics of agricultural education and related programs such as career development events and supervised agricultural experiences revealed that extensive work had been done with regard to teacher needs and requested in-service development. The importance of increasing enrollment and the need for students that are adequately trained and prepared for future careers was also discussed. No previous research was found that supported the benefit of and need for career development events from the perspective of the student. If the areas of interest and need identified by students, as a result of this study, can be shown to correlate with those requested by teachers, work can be done in the future to bridge the gap between these two groups and ensure that assistance is being given to teachers to support students where there is a demonstrated need by enhancing the correlation of classroom instruction to practical knowledge application through CDEs and SAEs.

A study by Layfield and Dobbins (2000) determined the current in-service needs of agriculture teachers in South Carolina using the Borich Needs Assessment Model. Two of the top five competencies identified as needed by beginning teachers with less than five years experience were: "preparing agriculture/FFA contest teams," and "developing SAE opportunities for students" (p. 572). The development of SAE opportunities for students was also identified as a need by experienced teachers, or those with greater than five years teaching experience.

The perceived importance of the FFA, including membership, activities, policies, and contests, increases for teachers over time as they work with students in the classroom (Claycomb & Petty, 1983, p. 31). A substantial number of studies have been done to assess the professional development needs of teachers in different states. Student and teacher development needs can be ranked in order of importance after they have been evaluated for level of need by teachers in various studies. Often, FFA related activities are included in the top 10 highest ranked areas of need. The activities include, but are not limited to: assisting with students' preparation for and success rates in FFA degree award programs, assisting with students' preparation for and success rates in FFA CDEs, developing SAE opportunities for students, and supervising traditional and non-traditional SAE programs (Edwards & Briers, 1999; Roberts & Dyer, 2004b; Washburn, King, Garton, & Harbstreit, 2001). This area of existing research is of particular interest in this study, because it has been documented that teachers would like support in these areas in order to strengthen a comprehensive agricultural education curriculum.

A study by Roberts and Dyer, "Characteristics of Effective Agriculture Teachers," reported that 100% of respondents agreed that an effective agricultural teacher "has a sound knowledge of FFA, actively advises the FFA chapter, and effectively prepares students for CDEs and other FFA activities" (2004a, p. 89). The same study reported that 93.55% of respondents agreed that an effective agriculture teacher "has a sound SAE knowledge, [and] actively supervises and encourages SAE projects" (p. 90). These findings are significant since a comprehensive agriculture curriculum includes the components of CDE preparation and SAE supervision with classroom and laboratory instruction.

Gary Moore, Agricultural Education Division Vice President with the Association for Career and Technical Education, wrote that "the FFA is considered to be an intra curricular part of the agricultural education program – in integral part of the curriculum and not a separate appendage. The FFA was established as a laboratory in which to teach leadership skills, so that agricultural students could practice these leadership skills and influence their local communities" (2005, p. 44).

For this study, questions were included in the instrument that asked students about whether or not they felt their agriculture classes prepared them for the career development event(s) they were participating in, and whether or not they believed that the CDE evaluated current knowledge and level of ability in that particular subject area. Literature has shown that teachers believe strength in preparing students for such events is characteristic of an effective teacher, and that inservices have been requested on CDE preparation and SAE supervision. This study will reveal how much of a correlation between classroom instruction, CDE preparation, and SAE involvement is perceived by students. One of the stated objectives of this study is to determine the students' perception of whether or not the content of the state CDEs is related to classroom instruction.

Croom and Flowers (2001) cited a 1993 study by Shinn and Vaughn in which it was found:

> That the national FFA organization should develop new career development events based upon emerging student interests and agricultural technologies. Furthermore, recognition programs should be periodically reviewed to determine if their effectiveness in motivating students and the FFA should continue its efforts to promote ethnic and gender diversity in its membership. Finally, the study found that the national FFA organization should develop strategies for encouraging participation at all levels of the organization: local, state, and national.

Talbert and Larke's 1995 study (as cited in Croom & Flowers, 2000) found that:

> minority students, especially minority females were underrepresented in agricultural education. Also, minority students had more negative perceptions about agriculture then non-minority students did. With regard to FFA participation, minority students have fewer role models. They reported that

minority students see themselves as unlikely candidates for careers in the agriculture industry.

Talbert and Larke are also cited by Woods and Moore (2003) with regard to factors that influence the enrollment of minority and non-minority students in AgriScience courses, stating that "efforts should be made to change possible negative perceptions of agriculture held by guidance counselors and others in influential roles." The importance of a positive perception of the agricultural education curriculum and related programs is also essential to the support of enrollment rates.

"Principals believed agriculture courses to be valuable in preparing students for careers. They agreed that agricultural education courses develop skills needed for employment in business and industry, and that agricultural education courses encourage students to apply knowledge and skills to real-life problems" (Kalme & Dyer, 2000, p. 119). Positive perceptions and program support within the school faculty will also permeate communities around the schools. Community and business leaders are essential to the adequate preparation of CDE teams, assistance with future employment, and the exposure of students to new careers through support of career development events.

Theoretical Framework

In developing this study, the primary interest was in bridging the gap between *what* students are being taught and *how* they are expected to perform when this knowledge is put into practice. It has already been established that classroom instruction goes hand-in-hand with supervised agricultural experiences and career development events as part of a comprehensive agricultural education curriculum. Current literature reveals that teachers are requesting in-service training in areas that would strengthen and enhance this approach to teaching in their classrooms and agriculture laboratories. The interest in doing this study then became determining how students perceived their preparation for, and performance in, state career development events based on their classroom instruction and community based agriculture experiences.

The expected outcome of the study was that the students' overall perception of participating in the CDE program would be positive, and that there would be an expressed interest for more information in contest-related subject areas and an increased recognition of the need for practice and preparation. Researchers also anticipated that exposure to educational and career options would result from participation. Such findings would allow the personnel that work with teachers to increase training materials and resources in areas with the most need. In order for teachers to utilize a comprehensive agriculture curriculum, they must have access to both theoretical and practical lessons and events that will equip students with the knowledge and skills necessary to pursue advanced academics and enter the workforce.

This project measured, or evaluated, the extent to which student classroom knowledge is being tested in our state career development events. The purpose of a career development event is to take classroom knowledge and apply this knowledge in a real life situation. A student comment/evaluation form needed to be obtained and modified and then given as a post-event

tool in order to make a comparison between the extent of classroom time spent on the activity and student success in the event. Informal observations were made and questioning of successful teams was done, as needed. These observations and questions were necessary to ascertain if there were any contest-related complaints or issues that needed to be addressed with the teachers prior to the evaluation of the official questionnaires. The information obtained this way is not reflected in the data analyzed for this study.

Purpose and Objectives

The purpose of this study was to determine if participation in a state level CDE was impacted by classroom instruction and future career endeavors. Specific objectives of this study were to:

1. Identify demographic profiles for students participating in state level CDEs;
2. Determine if the content of the CDE complemented classroom instruction;
3. Determine if there was a relationship between CDEs and the students' SAE.

Methodology

At the conclusion of selected state level Career Development Events (Dairy Cattle Evaluation, Dairy Handlers' Activity, Livestock Evaluation, Computer Applications, Horse Evaluation, Creed Speaking, Prepared Public Speaking, Extemporaneous Public Speaking, Agricultural Mechanics, Agricultural Sales, Crops Judging, Agricultural Communications, Job Interview, Farm Business Management, and FFA Quiz Bowl) the participants in 2004 completed a questionnaire that consisted of five sections. Of the 800 students that participated in the CDEs listed above, 602 completed the questionnaire. This represents a 75% response rate.

The target population for this study is all Virginia FFA Association members who attended the Virginia State convention; 9,037 members as of the 2004-2005 publication of the Official Manual of the National FFA Organization. With a 75% response rate, the sample size (n=602) can be statistically considered representative of the overall state population of the Virginia FFA (N=9,037) with a 95% confidence level (Dillman, 2000, p. 207). During the 2002-2003 school year, there were 23,094 students enrolled in agricultural education across the state of Virginia (National FFA Organization, 2004, p. 96). Many of the students represented in that overall enrollment number were sixth graders at the time and, therefore, ineligible to compete in state career development events as dues paying FFA members. The results of this study pertain to those students now as they progress through the state agricultural education program, and according to the sample/population size table used by Dillman, the results from the 602 student sample can also be applied to the entire 23,094 student population with 95% accuracy. The Cronbach's alpha of test reliability for this instrument was .67.

The instrument used in this study was developed with the collaborative effort of Jim Armbruster, LPS Specialist, and the researcher. The four sequential stages of survey design discussed in "Mail and Internet Surveys: The Tailored Design Method" (Dillman, 2000, pp. 140-147), were used to develop the questionnaire in this study. These include: review by colleagues/analysts, interviews to evaluate tool, use of a pilot study, and a final check. The

student CDE questionnaire was reviewed by faculty in the Department of Agricultural and Extension Education at Virginia Polytechnic Institute and State University. After specific changes were made to clarify questions, a pilot test was conducted with students at a high school who had recently competed in a state level CDE event. The resulting student comments were used to update the instrument with regard to overall length, readability, and understandability. Faculty then reevaluated the instrument to streamline the questions to make sure that desired data would be captured. College level agriculture students then took the revised questionnaire to offer insight on length and comprehension of questions.

The instrument contained 60, five-point rating scale questions and two open-ended questions. For this study, the researchers used two sections of the instrument. In section one of the instrument, the students were asked nine questions that were used to determine their demographic profiles. Scattered throughout the instrument were 10 other questions that related to objectives of this study. Recommendations for stakeholders' use of the collected data and implications for further research were developed when the data were analyzed. Only CDE participants accessible at the convention were surveyed and, therefore, individuals who participated in CDE events throughout the year were not considered in this study.

Findings

The sample size for this study consisted of 602 students who participated in 15 different Career Development Events at the 2004 State FFA Convention. The demographics of the participants showed 44.6% of the population were female, 98% were Caucasian, 68.5% of the participants were from a farming community, 2.82 was the average number of agriculture classes taken, 2.61 was the average number years of FFA membership, 92% of the students held at least the chapter degree, and 72% of the students were seeking an Advanced Studies Diploma.

A mean of 1.94 reveals that the CDEs evaluate the students' current knowledge of the subject areas. Of students surveyed, 77.3% believed that the CDE did measure their current knowledge and ability in the given event area, and 67.6% believed that their classroom instruction prepared them for the related CDE (Note Table 1).

Further research needs to be conducted in order to determine why the other 32.3% of students did not believe, or were not sure, that instruction was received in their agricultural education classes that prepared them to be successful in the CDE.

Table1
Students' Current Knowledge of CDE Subject Area

	M	***SD***		***f***	**%**
Specific event evaluated current knowledge and ability in this subject area n=590	1.94	.90	Strongly Agree	216	36.6
			Agree	240	40.7
			Undecided	109	18.5
			Disagree	27	4.5
			Strongly Disagree	6	1.0
Instruction received in agricultural classes prepared student to participate in this event n=575	2.20	1.01	Strongly Agree	167	29.0
			Agree	222	38.6
			Undecided	116	20.2
			Disagree	43	7.5
			Strongly Disagree	27	4.6

Note. Strongly Agree =1, Agree =2, Undecided=3, Disagree = 4, and Strongly Disagree = 5.

One of the objectives of this study was to determine if the students' career development event(s) were related to the Supervised Agricultural Experience (SAE) projects that they were/are participating in. Of responding students, 51.2% (M=2.58, SD=1.17) indicated that the CDE they participated in was related to their SAE. With 176, or 29.3%, undecided student responses, it causes the researcher to question how thoroughly the students understand what an SAE program is (Note Table 2). Existing research indicates that "the most important problem with SAE as it is currently practiced is that too many teachers view it as not appropriate in their specific settings" (Camp, Clarke, & Fallon, 2000, p. 21). And yet, one-third of the instruction in an agricultural education program is supposed to be based on SAEs, according to National FFA guidelines (Staller, 2003). The anticipated response choices for this question would have fallen into agree or disagree categories, assuming teachers are adequately integrating CDEs and SAE into their programs.

Table 2
Perceived Relationship between Participants' CDE and SAE

	M	***SD***		***f***	**%**
Specific event was related to student's SAE n=600	2.58	1.17	Strongly Agree	115	19.2
			Agree	192	32.0
			Undecided	176	29.3
			Disagree	62	10.3
			Strongly Disagree	55	9.2

Note. Strongly Agree =1, Agree =2, Undecided=3, Disagree = 4, and Strongly Disagree = 5.

Conclusions

Demographics

The overwhelming majority (98%) of respondents to this study were Caucasian. Increasing ethnic diversity in this student population is an issue that has been addressed by researchers in light of the fact that the demographic profile of the United States is rapidly changing. Youth from many backgrounds will be seeking careers that are based in the food, fiber, and natural resource industry, and should be given an opportunity to have a background in these areas through school curriculum and career related programs.

Of the responding student population, 44.6% was female, and surprisingly, 68.5% of participants were from farming communities. The thought among agricultural education professionals is that the face of students enrolled in agricultural education today is changing to include an increasing number of females and students from suburban or urban areas, although no research has been conducted in Virginia that reveals this definitively. Agricultural studies and events, which have broadened in scope over the years, incorporate more areas that are of interest to these two demographic populations, and research on specific participation rates in these events would be beneficial to program development throughout the FFA organization.

Relationship Between CDE and Classroom Instruction

Of the student respondents, 76% believed that the CDE did measure their current knowledge and ability in the given event area, and 67.6% believed that their classroom instruction prepared them for the related CDE. As discussed throughout this paper, a comprehensive agriculture curriculum includes all components of classroom and laboratory instruction, career development events, and supervised agriculture experience. Ideally, these areas complement one another in order to enhance the learning process and increase the ability of students to gain and utilize knowledge obtained through both theoretical and practical methods. The majority of respondents (67.6%) indicated that that instruction received in their agricultural education classes prepared them to be successful in the CDE. Results that raise a question about CDE preparation by agricultural education instructors are that 20.2% of students were undecided on this subject and 12.1% stated that they did not receive CDE instruction in the classroom. This may be because students chose to participate in an event before they had taken related curriculum, or it may be indicative of a deeper problem in which certain CDE-related topics are not being taught in an in-depth fashion. This is an area that warrants more exploration and discussion with teachers and curriculum development staff across the state.

Relationship Between CDE and SAE

Another objective of this study was to determine if there was an active relationship between the students' CDE(s) and SAE. Although 51.2% of students indicated that there was a relationship between the two, an unexpected finding was that 29.3% of respondents were undecided. Literature supports the idea that equal emphasis should be placed on career development events and Supervised Agriculture Experience as part of agricultural education (Staller, 2003). What needs to be determined is whether the undecided responses were the result

of not understanding the questions, not understanding what an SAE is, or if the CDE and SAE were similar but not deemed related by the student. Among the literature, there are also studies that show that support and training for CDEs and SAE are among the most requested by teachers, and that teachers believe these skills are necessary to be effective (Edwards & Briers, 1999; Layfield & Dobbins, 2000; Roberts & Dyer, 2004a; Roberts & Dyer, 2004b; Washburn, King, Garton, & Harbstreit, 2001). Students reporting there is a lack of connection between their CDEs and SAE may also indicate that their teachers are among the many that are in need of support to incorporate SAE into their programs. Greater emphasis needs to be placed on this need and training materials should be continuously revised to reflect curriculum changes so that they can be disseminated and utilized throughout the state.

Recommendations

This instrument could also be used for future career development events that take place throughout the calendar year to ascertain whether or not students have similar responses that can be broadly evaluated, or if the responses obtained in this study were unique to events conducted within the structure of the state FFA convention. The purpose of collecting data from students is to establish a baseline from which improvements can be made to enhance the relationship between classroom instruction and practical application of knowledge. A limitation in this type of study is recognized in the fact that it was disseminated to one sample of a larger population at one geographic location and one specific point in time. The benefit of continuing its use at other state career development events is that students of similar interest and ability can contribute to the knowledge base.

Student responses collected in this study will be compared to similarly collected CDE data from the national level, as permitted by the National FFA Organization. The benefit of such comparison, should there be enough similarity, would be that student responses would be considered when program and career development event planning takes place on both the state and national levels.

The researcher recommends that teachers encourage students to participate in Career Development Events that are correlated to classroom instruction. More effort also needs to be made by instructors to tie career exploration to the CDEs. Research should be conducted to identify teacher in-service requests that correlate with areas of weakness identified by students in this study. If the students want and need information on subjects that the teachers are requesting more support in, steps can be made to bridge that gap and provide support where it is needed.

This research study and its conclusions, as well as existing related literature, support the demonstrated need for, and desire to have, a relationship between classroom and laboratory instruction, career development events, and Supervised Agriculture Experience. Teachers need to have coursework and in-service opportunities available to them for support and instruction in areas of team preparation, completion of FFA applications, and training for career development events.

It is also important that the results of this study be shared with stakeholders, so that feedback can be used to modify and update CDEs and related curriculum materials as is deemed necessary to benefit students' education and career preparation.

Discussion/Implications

Career Development Events (CDEs) are designed to help prepare students for careers in agriculture. Classroom instruction comes alive as students demonstrate their skills in a competitive setting. CDEs test the abilities of individuals, as well as teams, in 28 major areas of agricultural instruction (National FFA, 2006). The basic core of agricultural education program consists of three components:

1. classroom instruction,
2. FFA, including Career Development Events, and
3. Supervised Agricultural Experience (SAE) programs.

The FFA is a co-curricular organization representing one-third of the total agricultural education program. As such, FFA activities should reflect the instruction provided in the agricultural education classroom and laboratory. In order to provide a more complete link between Career Development Events and Supervised Agricultural Experience programs a comparison between the two entities must be conducted to determine if the basic fundamentals of SAE are included in the foundations of current CDEs. If it is found that there are few links between the two further development can take place to refine or revise current CDEs in an attempt to provide an opportunity for students to participate in activities that are more aligned with what they are exposed to in the classroom and at the job site.

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