

Utilization of Advisory Councils in Pennsylvania Secondary Agricultural Education Programs

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Abstract

Advisory councils are a vital component of the program-planning process in career and technical education programs, providing an important link from the community to the program. The purpose of this research study was to describe how Pennsylvania agricultural educators used and perceived agricultural education advisory councils. The results yielded that 90.6% (n=155) of respondents had an advisory council that they viewed in a positive light. Participants felt that advisory councils could have more influence on the agricultural program. The vast majority of the advisory councils were also functioning without a program of work. Further investigation is needed on how the goals of the advisory council are accomplished and how all community stakeholders are being used in Career and Technical Education. Professional development that shares best practices is recommended for preservice and current agricultural teachers to improve the positive influence an advisory council can offer to a program.

Keywords: advisory council, agricultural education, community engagement

Introduction

Today's Career and Technical Education (CTE) programs are faced with a unique challenge: how do CTE educators prepare students for a dynamic and competitive global economy (Cotner & Folkers, 2012)? According to Albrecht and Hinckley (2012), the challenge is compounded as many, "educators do not have all the tools or dollars necessary to create and maintain the education-to-careers pipeline" (p. 135). To address this issue, the CTE community has collectively developed a strategy on how to continue offering cutting-edge career skills to students. *The Career*

Pathways Effect: Linking Education and Economic Prosperity (Center for Occupational Research and Development (CORD) & National Association of State Directors of Career Technical Education Consortium (NASDCTEc), 2012) represents the collaboration of many CTE professionals and serves as a written guide on how to address the CTE challenges of today.

One key component of the plan that CTE professionals have laid out focuses on expanding the network of stakeholders that surrounds CTE programs. If CTE programs are to be successful, "they must build effective partnerships throughout their

communities to be effective in recruiting, teaching, and placing students into rewarding careers” (Albrecht & Hinckley, 2012, p. 135). Community-program partnerships benefit both sides involved. According to Albrecht and Hinckley (2012),

Partnerships can provide student experiences that schools might otherwise not be able to provide – from guest speakers to workplace visits, job shadowing, internships, and apprenticeships, to name a few. These real-world opportunities enable student to plan better for their further education and career choices (p. 126)

In addition to the boost in student learning and achievement, the school can then work to fulfill additional goals of the community (Decker & Decker, 2003).

According to Pawlowski and Meeder (2012), authors of *Building Advisory Boards That Matter: A Handbook for Engaging Your Business Partner*, “all too often there is a serious disconnect between schools and their communities” (p. 4). Community members do not feel comfortable approaching educational programs to provide advice and input. In return, schools are not gaining stakeholder input on the career skills needed by students entering the workforce. A key method of fostering a community-CTE program interaction and alleviating this concern is through the use of an advisory council, which are also known as advisory boards or advisory committees (Decker & Decker, 2003; Phipps, Osborne, Dyer, & Ball, 2008).

“An advisory board is simply a diverse set of stakeholders in your program who come together with the shared goal of preparing students for the future” (Pawlowski & Meeder, 2012, p. 4). Programs rely on advisory councils for the many benefits they offer. These benefits include: aiding the program with focusing on the right career

outcomes; bringing trained industry expertise to the table; securing resources for the program; providing new opportunities for students; connecting to the larger community; and advocating for the program (Pawlowski & Meeder, 2012).

Specifically under the umbrella of CTE, the discipline of agricultural education also relies on the use of advisory councils. According to Phipps et al. (2008), authors of the textbook *Handbook on Agricultural Education in Public Schools*, advisory councils benefit the secondary agricultural education programs by providing them with assistance in the program planning decisions and overseeing the evaluation of their program to ensure that the program goals are being met. Roberts and Dyer (2004) reported that the characteristic of successful community relations was an important factor for effective agriculture teachers and programs.

Policy makers also recognize the importance of advisory council input. The Pennsylvania Education Code outlines the Vocational Education Standards that schools must comply with to have recognized vocational programs. Specifically, schools that wish to be eligible for state and federal funding through the Carl D. Perkins Career and Technical Improvement Act of 2006 and other funding opportunities must undergo a program approval process (Albrecht & Hinckley, 2012). One component of the program approval process requires strong evidence that the local and occupational advisory councils of the program are present and provide input on program decisions (Vocational Education Standards, 2008).

Even with legislation mandating the implementation of an advisory council and researchers substantiating their importance to the program and teacher, previous research in the area of agricultural education advisory councils have found varying degrees of advisory council use. Domody, Seever, and

Clason (1996) concluded that 90% of local agricultural education programs nationwide had an advisory council in place. These advisory councils offered advice on course content, assessing equipment needs, and evaluation of the program. According to Whaley and Sutphin (1987), only 77% of California agricultural education programs had an advisory council. Despite the fact that California state law required an active advisory council, 23% of the programs in the state functioned without this required entity.

A more recent investigation into advisory council use in agricultural education occurred in Texas by Barbour (2010). Survey research methods were used to gather data on the level of use in the state. Of the 162 programs that responded, 43% had an active advisory council in place, with the remaining 57% operating without one. The study indicated that advisory councils influenced the programs most by serving as a communication link to the public, evaluating the program, and identifying facility needs of the program. Barbour also found that the agriculture teacher fulfilled many of the top roles on the council, including making the agenda and selecting new members. Barbour (2010) recommended the continued use of an advisory council for program communication with the community and that future research should investigate advisory councils further.

The research that was conducted on advisory council use identified disparity among states. In addition, a review of related literature (Boone & Boone, 2007; Myers, Dyer, & Washburn, 2005; Sorensen, Tarpley, & Warnick, 2010) indicated that teachers are seeking professional development on the topic of advisory councils and community support. Both new and current teachers are struggling with the organization and effective use of advisory councils and their implementation. Research-based benefits of advisory councils and desired professional development on the topic substantiates the

need to further investigate the disconnect that occurs between research and practice. The intended results of the current study are key to finding methods of increasing advisory council use and implementation in Pennsylvania agricultural education programs.

The National Career and Technical Education Research Agenda (Lambeth, Elliot, & Joerger, 2008) calls for research in program planning, program relevance and accountability. Advisory councils can help career and technical education program in each of those domains. The research will increase understanding of how the best practices of advisory councils are utilized in Pennsylvania. Findings could improve effectiveness of professional development implementation about advisory councils across Pennsylvania.

Conceptual Framework

Caffarella's (2002) Interactive Model of Program Planning highlights the importance of people in the planning process. The program planning of the agriculture education program is shaped by a wide variety of outside influences. Various groups of people serve as specific stakeholders in the program and bring cultural differences to the planning process. In addition to people, the model accounts for other aspects of the school and community that influence the program planning of the secondary agriculture education program. The focus of this study is on the external stakeholder input to the agricultural education program.

According to Caffarella (2002), "program planning models consist of ideas of one or more persons about how programs should be put together and what ingredients are necessary to ensure successful outcomes" (p.15). According to Decker and Decker (2003), the program should reflect the community and incorporate input from

community stakeholders. The conceptualized program planning models incorporates a multifaceted approach to the program planning process. A major component of this type of program planning model addresses the fact that this process involves working with people in a series of compromises and negotiations (Caffarella, 2002). One such example of this conceptualized program planning model is the Interactive Model of Program Planning.

According to Caffarella (2002), this model takes into account the dynamic essence of the planning process and addresses the fact that people plan programs and the ethical, political, and social factors must be dealt with during the planning process. The unique inclusion of certain components in Caffarella's Interactive Model of Program Planning links this model to the organizational structure of Pennsylvania agriculture education program planning processes. Each agriculture community varies slightly and this inclusion of these dynamic factors takes into account the reason agriculture programs will uniquely reflect the wants and needs of a specific geographic area and community.

Purpose and Research Objectives

Legislation requires that an advisory council be in place for all CTE programs in Pennsylvania, which includes agricultural education. Researchers in the area of community and stakeholder support also indicated the importance of these partnerships with the program. There has been, however, limited research conducted on the status and implementation of advisory councils in the state of Pennsylvania. The purpose of this descriptive research study was to describe how Pennsylvania agricultural education programs used and perceived agricultural education advisory councils. The study was guided by the following research objectives:

1. Determine the utilization of advisory councils by Pennsylvania secondary agricultural education programs.
2. Describe the composition of advisory councils of Pennsylvania secondary agricultural education programs.
3. Describe the program of work undertaken by advisory councils of Pennsylvania secondary agricultural education programs.
4. Describe secondary agricultural educator perceptions of advisory council utilization.

Methods and Procedures

Dillman's *Total Tailored Design Method* served as the methodological framework for this descriptive research survey (Dillman, Smyth, & Christian, 2009). The population of this study was all agricultural educators teaching in a secondary agricultural education classroom in Pennsylvania during the 2011-2012 school year. A valid directory of all the agriculture teachers teaching during the 2011-2012 school year was obtained and checked for accuracy. The population was determined to be 241 secondary agriculture teachers statewide. The small population of the study allowed for a census to be conducted, thus coverage and sampling errors were not a concern because they indicate discrepancies in the sample size and distribution which are not applicable in a census (Dillman, et al., 2009). Generalization of the study results to other populations should be done with caution, as this was a census of only Pennsylvania agricultural teachers.

The research instrument was developed and adapted from previous research conducted in Texas (Barbour, 2010). While Barbour addressed similar objectives, the study was specific to Texas agricultural education and utilized several questions unrelated to this research. Therefore, it was only used as a foundation for the

questionnaire and most items were modified to meet the objectives for this study specifically. The 11 items used by Barbour (2010) to address the level of advisory council influence on the program were used in the current study as a basis for gathering similar data in Pennsylvania. Three more items were added to the initial 11 to address all components of the agricultural program in the current study. The resulting questionnaire consisted of nominal, Likert-type, and summated scale questions, which addressed the four research objectives of the study.

A panel of experts reviewed the questionnaire for content and face validity. The panel consisted of three university faculty members and one graduate student. The three university faculty members were high school agriculture teachers prior to their positions at the university level, and were current members of the agricultural education department with instructional and research experience focused on preparing agriculture teachers and improving agricultural education across the nation. The graduate student on the panel also was a high school agriculture teacher who left the classroom to become an agricultural education teacher educator. All four panel members were selected because of their practical experiences as agricultural educators and their knowledge of educational research. The panel reviewed the instrument and provided input to refine the instrument.

To ensure the reliability of the data, a pilot test of the questionnaire was also conducted. The pilot study was conducted in Arizona prior to its implementation in Pennsylvania. Arizona secondary agricultural education programs had a similar gender distribution, range of teacher experience, and variation in agriculture program size to the state of interest. All 90 Arizona agricultural educators were provided the opportunity to participate seeking a participation of a minimum of 30 responses

to ensure statistical variability for reliability testing (Baker, 1994). After achieving an appropriate level of response from the pilot study, the Statistical Package for Social Sciences (SPSS) was utilized to determine Cronbach's alpha coefficients as a measure internal consistency of the construct regarding teacher perceptions of advisory council use. It was determined that the Cronbach's alpha coefficient was .91, which exceeded the acceptable levels for exploratory research (Ary, Jacobs, Razavieh, & Sorensen, 2006; Hair, Black, Babin, Anderson, & Tatham, 2006). The Pennsylvania State University Institutional Review Board approved the research study prior to data collection.

The data collection followed a mixed-mode approach as outlined by Dillman et al. (2009). A mailed pre-notice letter and a research incentive were first sent to all 241 secondary agricultural education teachers in the state. The confidential questionnaire link was then sent out via *SurveyMonkey* one week after the delivery of the pre-notice letter. Four follow-up reminders were sent approximately one week apart requesting that the participants complete the questionnaire.

After the final notice, the data were reviewed for incomplete responses or errors. After careful review of the data, seven respondents were eliminated from the study due to incomplete records. The remaining data were then coded, compiled and analyzed. The Statistical Package for the Social Sciences was used to analyze the data based on the four objectives of this study. Frequencies and percentages were calculated and reported for nominal items to describe the population of the study. For the remaining items, the means and standard deviations were reported as the measure of central tendency.

Results/Findings

Prior research laid the foundation for this study and the predetermined methods guided the data collection process. Data were collected from 171 out of the total 241 agriculture teachers in Pennsylvania, yielding a response rate of 70.9%. Post hoc Cronbach's alpha reliability coefficients were calculated prior to data analysis to check for internal consistency. Both sets of items each had a reliability coefficient of .90, which exceeds the acceptable value (Ary et al., 2006; Hair et al., 2006). The results that address the four study objectives are outlined in the following section.

Objective 1 – Utilization of Advisory Councils

Objective 1 of this study was to determine the utilization of advisory councils by Pennsylvania secondary agricultural education programs. Of the 171 respondents, 90.6% ($n = 155$) indicated that they currently had an advisory council for the agricultural education program. Sixteen respondents indicated that no advisory council was in place.

The 16 respondents who indicated that no advisory council was present were then asked to identify barriers that prevented the utilization of a council. Responses were analyzed of the 16 individuals who indicated no advisory council was present (Table 1). Respondents were able to select all answers that applied to their situation.

Table 1

Barriers to Implementation and Utilization of Secondary Agriculture Education Advisory Councils (n=16)

Barrier	Frequency (f)	Percentage (%)
My program is not approved	4	25.0
Not essential to my program	4	25.0
Not approved by other administration entities	3	18.8
Other entities serve the same purpose	3	18.8
Have not had time to organize a council	2	7.5
New Program; council not yet organized	1	6.3
Not approved by my school principal	1	6.3
Prospective members are too busy to participate	1	6.3
Do not understand the purpose of advisory councils	---	---
Do not understand how to organize advisory council	---	---

Objective 2 – Composition of Advisory Councils

Objective 2 of the study was to describe the composition of advisory councils of Pennsylvania secondary agricultural education programs. Only the 155 respondents who indicated they had an advisory council answered the items addressing this objective. The participants

reported that the total advisory council membership was an average of 11 members, with nine being voting and two non-voting (*ex-officio*) members. Of the 155 respondents with an advisory council, 41 (26.5%) selected that term lengths were established for the advisory council members, with three years in length as the mean response. The roles and responsibilities of individuals holding

specific positions on the advisory council were investigated. The first of these roles was the individual in charge of selecting new council members. It was determined that 70.2% of study participants with an advisory council present selected the agriculture teacher as the person who selected new advisory council members, followed by the existing committee members (58.5%) and the school principal (9.9%). Minute-taking was the second role included on the questionnaire. Again, it was the agriculture teacher (48.4%) who was selected as the top individual who took official minutes during the meeting, followed by the council secretary (35.5%).

Respondents also indicated the members that were currently present on the advisory council by selecting all the members that were present on the advisory council. Respondents reported that there is a wide array of representatives that compose the

advisory council (Table 2). The top three school administrators present were the school principal ($n = 91$), school assistant principal ($n = 34$), and the CTE/vocational director ($n = 32$).

Participants responded to three items that aimed to identify if the advisory council representatives represented the industries present in the school district and community. The first item used an 8-point Likert-type item, which rated each respondent's level of agreement with the statement: "The members of my local agriculture education program advisory council represent the agricultural industries in the school district." Of the respondents, 78.1% indicated moderately agree, strongly agree, or very strongly agree with the highest frequency was strongly agree, yielding 34.2% ($n = 53$) of the responses.

Table 2

Member Composition of Pennsylvania Secondary Agriculture Education Advisory Councils (n=155)

Member Type	Frequency (f)	Percentage (%)
Representatives of local agriculture industries	150	87.7
Former students	107	62.6
Parents of current students	95	55.6
School administrators	91	53.2
Parents of past students	90	52.6
Representatives of local industries other than ag	78	45.6
Current students	72	42.1
Teachers in the school district (other than ag)	24	14.0

Two additional items were then used to identify if the teachers response on the Likert-type item was reflected in practice. Respondents first indicated which industries were present in the community. The second question then asked respondents to indicate which industries were represented on the advisory council. The eight career clusters for agricultural education were provided as

options for each item, along with their definitions to ensure that respondents understood the correct category for each industry. Overall totals from both questions were ranked and then compared to one another. Researchers found that the industries present in the community and the industries that are represented on the advisory council do coincide closely.

Objective 3- Program of Work of Secondary Agriculture Education Advisory Councils

Objective 3 was to describe the program of work undertaken by advisory councils in Pennsylvania secondary agriculture education programs. Again, only those 155 participants that indicated an advisory council was present responded to these items. Researchers concluded that most Pennsylvania advisory councils meet semi-annually. During the meetings, 125 (80.6%) of the advisory councils operated without any funds. The remaining 30 participants reported funds came from the general school fund, FFA chapter, or advisory council fundraising.

Respondents reported how much influence the advisory council had on the program in various areas. The top four areas were as follows: identifying the equipment, tools, and supplies needed for the program; reviewing courses of study for content relevancy and accuracy; acting as a communication link between the general public and the program; and evaluating the program.

A program of work serves as a guiding force for the operation of the advisory council. Of 155 respondents who indicated that there was an advisory council in place, 19.4% ($n = 30$) indicated that “yes”, there is a program of work in place. The other 80.6% responded with “no”, indicating that there is an advisory council present but no program of work exists.

Objective 4 – Secondary Agriculture Teacher Perceptions

The fourth objective in the study was to describe the educator perceptions of Pennsylvania secondary education advisory councils. Two items were first used to investigate the perceptions related to the current level of influence and the desired level of influence the advisory council

current had on the program. Only those 155 participants who specified that an advisory council was in place for the program answered the two sets of items. Respondents were first asked how much influence the agriculture advisory council currently had on making decisions about the curriculum, program, FFA, and Supervised Agricultural Experience (SAE). A follow-up question then addressed how much influence the participant thinks the advisory council should have in making decisions about the same four factors. The items were identical between the two questions, allowing a comparison (exhibited in Table 3) to be made between the current influence and the level of influence the council should have in the program.

Discrepancies gathered show the difference between how much influences councils *should* have and how much they currently *do* have (Table 3). Overall means yield a similar disparity. The mean of the 14 items that addressed the current level of advisory council influence on the program, as perceived by the agriculture teacher, was 2.9 ($SD = .49$). For the construct addressing the level of influence teachers feel the advisory council should have on the program, a mean of 3.7 ($SD = .37$) was calculated. The difference between the mean level of influence the advisory council *should* have and the level of influence the advisory council *does* have was 0.8.

Table 3

Rank Order of Perception Discrepancies between the Influence that SHOULD be present and Current Influence of the Advisory Council ($n = 155$)

Rank	Program Areas	Influence the Council CURRENTLY has on the Program ^a		Influence the Council SHOULD have on the Program ^a		Mean Discrepancy ^b
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1	Hiring new instructors or teachers	1.9	1.1	3.1	1.0	1.2
2	Providing recommendations to the local governing school board	3.1	1.3	4.1	0.9	1.0
3	Assisting with SAE program activities (i.e. placement, etc.)	2.5	1.1	3.5	0.9	1.0
4	Approval of working, travel, or other budget funds	2.0	1.0	2.9	1.1	0.9
5	Acting as a communication link between the general public and the program	3.3	1.2	4.2	0.9	0.9
6	Identifying the facility modifications needed	3.2	1.3	4.0	1.0	0.8
7	Approving courses of study	2.9	1.3	3.6	1.0	0.7
8	Assisting with FFA chapter activities	2.8	1.1	3.5	0.9	0.7
9	Determining the objectives of the agriculture program	3.2	1.1	3.8	0.8	0.6
10	Evaluating the agricultural program	3.3	1.2	3.9	1.0	0.6
11	Determining courses to be offered	3.1	1.0	3.6	0.8	0.5
12	Reviewing courses of study for content relevance and accuracy	3.3	1.1	3.8	0.9	0.5
13	Identifying the equipment, tools, and supplies needed for the program	3.5	1.2	4.0	0.9	0.5
14	Reviewing instructional materials	3.0	1.2	3.5	0.9	0.5

Note. a: Means are based on a 5-point summated scale (1-No Influence, 2-Limited Influence, 3-Some Influence, 4-Moderate Influence, 5-Extreme Influence). b: Difference represents the mean of what councils should do minus the mean of what councils currently do in the program.

To gather the perceptions of advisory council use, all 171 participants answered the items on teacher perceptions of advisory councils, regardless of whether or not an active advisory council was in place. Respondents rated their opinion on the 8-

point summated scale that ranged from 1 = very strongly disagree to 8 = very strongly agree (Table 4). The mean of all 12 items in the construct was 5.6 ($SD = .79$), which corresponds to the mildly and moderately agree indicators on the 8-point scale.

Table 4

Rank Order of Advisory Council Characteristics by Level of Participant Agreement (n=171)

Rank ^a	Item	M ^b	SD
1	Communication between the agriculture teachers and the advisory council members is important.	6.7	1.2
2	The members of an agricultural education advisory council should represent the local industries found in the school district.	6.7	1.3
3	Advisory councils are important to the overall success of the agriculture program.	6.3	1.3
4	I could use my advisory council more than I currently do.	5.7	1.7
5	It is the advisory council's obligation to present recommendations for the agricultural education program to the school board.	5.4	1.8
6	It is the agriculture teacher's responsibility to ensure that the advisory council meets regularly.	5.3	1.9
7	Advisory councils should be used to determine curriculum decisions.	5.1	1.5
8	The recommendations made by my advisory council result in changes to the agricultural program.	5.1	1.8
9	My program is constantly improving because of the work done by my program.	4.9	1.9
10	All changes to the agriculture education program should originate from advisory council recommendations.	4.4	1.8
11	Advisory councils are not helpful in conducting a successful agricultural education program.	2.7	1.6
12	Advisory councils are a hindrance in conducting a successful agricultural education program.	2.4	1.3

Note. a: These are ranked from highest average to lowest average based on the average Likert-scale results. b: Averages are based on the eight point Likert-scale (1-Very Strongly Disagree, 2-Strongly Disagree, 3-Moderately Disagree, 4-Mildly Disagree, 5-Mildly Agree, 6-Moderately Agree, 7-Strongly Agree, 8-Very Strongly Agree).

The final component of objective 4 was to gather data on teachers' perceptions of advisory council professional development. An 8-point Likert-type item ranging from 1 = very strongly disagree to 8 = very strongly agree was used to gauge if professional development was needed on advisory councils for Pennsylvania agricultural educators. Of the individuals that responded, 82.5% ($n = 141$) agreed that there was a need

for professional development on advisory councils. The two highest responses were "mildly agree" (32.2%, $n = 55$) and "moderately agree" (30.9%, $n = 53$).

Conclusions and Discussions

The first research objective was to determine the utilization of advisory councils by Pennsylvania secondary agricultural education programs. The utilization of

advisory councils in Pennsylvania was found to be similar to the national average of 90.0% as determined by Dormody, Seevers, & Clason. (1996), but much higher than Texas and California agricultural programs (Barbour 2010; Whaley & Sutphin, 1987). An overwhelming majority, 90.6%, of the 171 respondents indicated that an advisory council was currently being utilized. The remaining 9.4% do not currently utilize an agriculture education advisory council in the program.

Even though Pennsylvania's implementation of advisory councils is similar to the national average, prior researchers indicated that *all* programs should utilize advisory councils in secondary agricultural education programs (Dormody et al., 1996; Whaley & Sutphin, 1987). The belief that constant community-program interaction is vital to program planning and success is a common notion that is shared by policy makers and educational researchers alike. Research beyond agriculture education reveals that community members and resources are used to strengthen schools and student learning and indicate that there is an exchange that occurs. The community provides the boost in student learning and achievement while the school works to fulfill the goals of the community (Decker & Decker, 2003).

The barriers that were concluded from the study show that the top reason an advisory council is not in place is that an advisory council is not essential to the program and that the program is not approved by the Pennsylvania Department of Education. In contrast, none of the participants indicated that they did not know the purpose or how to organize an advisory council, implying that a lack on advisory council knowledge is not a barrier to 100% implementation. The results suggest that agricultural teachers were either not educated on the importance of advisory councils

during pre-service instruction and certification or professional development articulating the benefits of advisory councils has been deficient in the state. Research conducted by Myers et al. (2005) on the problems facing beginning agriculture teachers yielded results indicating that organizing an effective advisory committee was one of the major problems faced by neophyte teachers. Expanding beyond just advisory committees, this study also indicated that three of the top five major problems faced by beginning teachers dealt with community support group issues. According to Myers et al. (2005), beginning teachers may see the need for an effective advisory council but feel unable to organize and lead such a group. These researchers recommend that increased training and professional development for pre-service teachers is needed in establishing and managing support groups such as advisory councils to help reduce this problem (Myers et al., 2005). Thus, this study confirms a need to instructors to embrace an advisory board for their program not for compliance purposes alone, but for program improvement. Effective professional development on purposeful utilization of advisory boards is recommended.

The second research objective was to describe the composition of advisory councils of Pennsylvania secondary agricultural education programs. Although variations existed, it was concluded that on average, Pennsylvania agriculture advisory councils are composed of eleven members, with nine voting and two non-voting (*ex-officio*) members. Three years was the average term length for these members. It was the agriculture teacher however, that most commonly fulfilled the roles of taking minutes and selecting new members. This is consistent with Barbour (2010), who concluded that the agriculture teacher

developed the agenda and selected new council members.

Bray (2002) stated that CTE programs have historically offered courses reflective of labor market and employer. Decker and Decker (2003) found that advisory councils must reflect the community and its ideals so that these ideas can be ingrained in the program. It was concluded that representatives from the agriculture industry, former students, parents of current students, school administration, and parents of past students were found to be the top five stakeholders represented on the secondary agriculture education advisory council. Since each community is different and includes a diverse culture, ethnic background, and array of people, different sectors of the agriculture industry were represented on the advisory council as well from program to program (Caffarella, 2002). Agriculture teachers strongly agree that the agriculture industries found in the community should reflect the industries taught in the school's agriculture programs.

The third research objective was to describe the program of work undertaken by advisory councils of Pennsylvania secondary agricultural education programs. Two meetings were held annually and were often operated without any funding. The Chapter 339 of the Pennsylvania Educational Code specifies that at least two meetings must be held annually to be in compliance with the requirements for program approval. The fact that the most advisory councils meet twice a year prompts the researcher again to question if advisory councils are only present as a compliance item.

Oakes and Saunders (2008), along with Stern (2009), observed that stakeholders and industrial partners provided input to curriculum development and student assessment, and provided opportunities for internships, job shadowing, and mentorships in CTE programs. According to Phipps et al.

(2008), advisory councils can assist in the planning, implementation, and evaluation of secondary agricultural education programs that focus on the program objectives and goals. The council's involvement often includes input on curriculum, facilities, and evaluation procedures. The researchers found with the current study that Pennsylvania advisory councils most often identified the following at top areas of influence: equipment, tools, and supplies needed for the program; reviewing courses of study for content relevancy and accuracy; acting as a communication link between the general public and the program; and evaluating the program. These areas of influence were consistent with previous research (Barbour, 2010; Dormody et al., 1996; Phipps et al., 2008).

A program of work helps to guide the council to address the objectives and goals of the overall program. It was concluded that only 30 respondents (19.4%) indicated that a program of work was present. Without a program of work, there is little to no guidance for the council and its work. This lack of planning and use of a program of work also implies the idea that programs are not fully utilizing the advisory council to its full potential. Both Phipps et al. (2008) and Pawlowski and Meeder (2012) outline the importance of working collaboratively towards a common goal for the program. The researchers question the reality of working collaboratively towards a common goal based on the results of objective three. With most program advisory councils operating without a guiding document, what guides programs as they attempt to address a common goal?

The fourth research objective of the study was to describe the levels of influence on the program and secondary agricultural educator perceptions of advisory council utilization. Teachers felt that the advisory councils should have more influence on all

areas of the program than what they do currently. The discrepancy between the current level of advisory council influence ($M = 2.9, SD = .49$) and the level of influence the advisory council should have ($M = 3.7, SD = .37$) implies that advisory councils are not being used to their fullest potential. More influence is especially desired by agriculture teachers in the areas of hiring new instructors, providing recommendations to the local school board, and assisting with SAE programs.

Agriculture educators in the state of Pennsylvania perceived the use and function of an advisory council as a vital aspect of the program. The top three items agreed upon by respondents include that communication between the community and program is important, there is a need for a representative advisory council that represents the local agricultural industries, and the idea that advisory councils are important to the overall success of the program. On the eight-point Likert-scale, all items had a mean of 5.7 ($SD = .79$), which falls between the mildly agree and moderately agree identifiers.

With regards to professional development, Sorensen et al. (2010) recommended that workshops on community involvement with advisory councils would help combat the in-service need of teachers. Pennsylvania agriculture teachers mildly to moderately agree that professional development is needed on advisory councils. The results imply that even though a large majority of teachers do utilize an advisory council, the idea that professional development is needed on this idea is still shared by most teachers. Teachers seem to know that advisory councils are not being used to their full potential at the moment. The interest and desire for advisory council professional development implies that teachers want to use the councils more and attempt to strengthen the community-program relationship.

The fact that teachers perceive advisory councils in a positive light is encouraging and implies that teachers do see some need in their existence. While teachers see and understand why an advisory council is in place, the actual workings of the advisory council often does not reflect the perceptions of teachers. With less than one fifth of advisory councils using a program of work, and several participants indicating that councils were present as a compliance item, teachers may perceive advisory councils as useful. Not all teachers, however, are able to put their opinions and beliefs on community involvement into practice.

Recommendations for Future Research and Practice

The findings from this study have highlighted an increased need for scholars and practitioners to revisit advisory councils and community engagement in CTE. First, research must be conducted to identify how secondary agriculture education advisory councils are achieving their goals and objectives when less than one fifth have a program of work in place. The program of work is what drives the council to achieve these items so future research must identify if there is something used in its place that serves as a guiding force. Do instructors realize a program of work must be revisited on a routine basis to ensure applicability? Also, investigation into the barriers preventing the use of a program of work should also be included as well. Understanding the barriers to implementation is essential. By doing so, the barriers can be addressed in the professional development and help establish clear guidelines for achieving the councils goals and objectives.

The researchers also recommend further research between all community and stakeholder partnerships with secondary agricultural education programs. Advisory councils are just one type of stakeholder

group that supports an agricultural education program. The current study only focused on one group, the advisory council, so further research and investigation into other community and stakeholder partnerships with agricultural education programs could strengthen the body of literature on this topic.

Because the current study focused solely on agricultural education, a final recommendation by the researchers is to gather similar data from all career and technical areas on the use and perceptions of advisory councils. If advisory councils are not being used to their fullest potential in one area of CTE, there is a strong possibility that other disciplines also are experiencing similar difficulties engaging stakeholders. Also, research in other areas may provide best practices that can be shared with all CTE programs.

Professional development on advisory councils for preservice, new, and practicing teachers is strongly recommended. Specifically, how to work collaboratively with stakeholder groups, ways to develop a program of work, and methods to increase the influence the advisory council has on the program are three top areas that should be included in the professional development. Professional development opportunities should also allow teachers that already have programs of work and high advisory council involvement in the program to share their successes and best practices.

The implementation and use of an effective advisory council is critical to all CTE programs. Castellano et al. (2003) found bringing together like-minded educators, community members, parents, and students was essential to decisions regarding appropriate CTE themes and curriculum integration individualized to school sites. While many agricultural programs are reaping the benefits advisory councils can offer, some agriculture teachers in Pennsylvania still view advisory councils as

a compliance step in the program approval process and fail to utilize the council to its full potential. While this study provided a clear outline of the status of advisory councils in Pennsylvania, further research needs to address the key questions that were derived from the results. Further research on community and stakeholder support will aid in the strengthening of all CTE programs across Pennsylvania.

References

- Albrecht, B., & Hinckley, R. (2012). Partnerships. In Center for Occupational Research and Development and the National Association of State Directors of Career Technical Education Consortium (Eds), *The career pathways effect: Linking education and economic prosperity* (pp. 123-147). Waco, TX: CORD Communications.
- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont, CA: Thomson Wadsworth.
- Baker, T. L. (1994). *Doing Social Research* (2nd ed.). New York: McGraw-Hill Inc.
- Barbour, J. C. (2010). *Characteristics and influence of advisory committees on program planning in Texas secondary agricultural programs* (Unpublished master's thesis). Texas Tech University, Lubbock, TX.
- Boone, H. N., & Boone, D. A. (2007). Problems faced by high school agricultural education teachers. *Journal of Agricultural Education*, 48(2), 36-45. doi: 10.5032/jae.2007.02036
- Bray, J. B. (2002). A new association is born. *Techniques*, 77(2), 20-45.
- Caffarella, R. S. (2002). *Planning programs for adult learners: A practical guide for educators, trainers and staff developers* (2nd ed.). San Francisco: Jossey-Bass.
- Castellano, M., Stringfield, S., & Stone, J. R. (2003). Secondary career and technical

- education and comprehensive school reform: Implications for research and practice. *Review of Educational Research*, 73(2), 231-272.
- Center for Occupational Research and Development & National Association of State Directors of Career Technical Education Consortium. (2012). *The career pathways effect: Linking education and economic prosperity*. Waco, TX: CORD Communications.
- Cotner, H., & Folkers, D. (2012). *The career pathways effect: An introduction*. In *The career pathways effect: Linking education and economic prosperity* (pp. 1-7). Waco, TX: CORD Communications.
- Decker, L. E., & Decker, V. A. (2003). *Home, school, and community partnerships*. Lanam, MD: Scarecrow Press.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail and mixed-mode surveys: The tailored design method*. Hoboken, New Jersey: John Wiley & Sons.
- . Teacher perceptions of the goals achieved by adult organizations in agricultural education. *Journal of Agricultural Education*, 37(1), 31-40. doi: 10.5032/jae.1996.01031
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson Education.
- Lambeth, J. M., Elliot, J., & Joerger, R. (2008). The national career and technical education research agenda. *Techniques*, 83(7), 52-55.
- Myers, B. E., Dyer, J. E., & Washburn, S. G. (2005). Problems facing beginning agriculture teachers. *Journal of Agricultural Education*, 46(2), 47-55. doi: 10.5032/jae.2005.03047
- Oakes, J., & Saunders, M. (Eds.). (2008). *Beyond tracking: Multiple pathways to college, career, and civic participation*. Cambridge, MA: Harvard Education Press.
- Pawlowski, B., & Meeder, H. (2012). *Building advisory boards that matter: A handbook for engaging your business partners*. Alexandria, VA: Association for Career and Technical Education.
- Phipps, L. J., Osborne, E. W., Dyer, J. E., & Ball, A. (2008). Using Advisory Councils and Support. In L. Phipps, E. W. Osborne, J. E. Dyer, & A. Ball (Eds.), *Handbook on Agricultural Education in Public Schools* (pp. 81-93). Clifton Park, NY: Thompson Delmar Learning.
- Roberts, T. G., & Dyer, J. E. (2004). Characteristics of effective agriculture teachers. *Journal of Agricultural Education*, 42(4), 43-53. doi: 10.5032/jae.2001.4043
- Sorensen, T. J., Tarpley, R. S., & Warnick, B. K. (2010). Inservice needs of Utah agriculture teachers. *Journal of Agricultural Education*, 51(3), 1-11. doi: 10.5032/jae.2010.03011
- Stern, D. (2009). Expanding policy options for educating teenagers. *Future of Children*, 19(1), 211-239. Retrieved from <http://files.eric.ed.gov/fulltext/EJ842069.pdf>.
- Vocational Education Standards, 24 P. S. §18-1803 (1978 & 2008).
- Whaley, D. C., & Sutphin, H. D. (1987). The status and influence of agricultural advisory committees in California. *Journal of the American Association of Teacher Educators in Agriculture*, 28(3), 37-42, doi: 10.5032/jaatea.1987.03037

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