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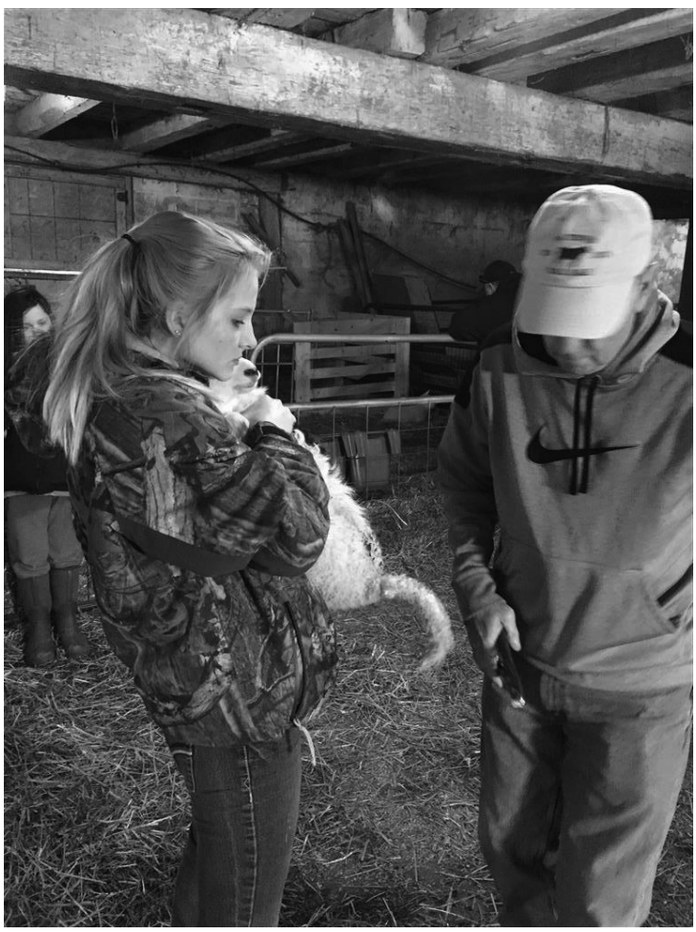

Advisory Committees

Good Advice to Follow: Utilize Your Advisory Committee

by John C. Ewing

When I began thinking about this month's issue (almost a year ago now), I had many thoughts going through my mind: Who would be a good theme editor for the topic? Should we dedicate an entire issue of the Agricultural Education Magazine to advisory committees? Will there be enough content diversity to hold the interest of the readers? All of these questions and many more, which I can't seem to remember on this beautiful sunny day in Happy Valley, ran through mind that day. After seeing the issue to completion, I am glad that I reflected on those questions and decided to include advisory committees in our 2016 – 2017 issues. I believe that you will agree that all of the questions that I had were answered in a positive manner. Dr. Bart Gill served as the theme editor and did a masterful job in pulling together authors with different ideas and perspectives around advisory committees. Thus, the diversity in articles will aid you, as the teacher, in working with advisory committees in the coming years. Several of the articles will remind us of "tried and true" components of working with our program's advisory committee. Other articles will challenge us to think differently about the ways in which we manage our programs.

While reading the articles, I continually thought of how to make my own teaching better as I instruct future agricultural educators. I believe that much of what is written in this issue aligns with my personal experiences, but I must admit that several components of the articles have challenged me to do a better job in teaching my students this fall in regards to having an effective advisory committee. Pennsylvania has some great resources on operating advisory committees, as I am sure many of your states do. I encourage you to seek out these planning guides, if you have not done so already in your career. Connect with another educator and see how their committee operates. Learn what has worked for them. Find out what hasn't worked for them. Take their advice to heart, as well as the advice in the following articles, and see how you can improve your program's advisory committee.

I encourage you to seek out these planning guides, if you have not done so already in your career.

Articles in this issue describe the purpose and function of advisory committees, how to best utilize these committees, and how to make the partnership successful for all involved. These committees can be powerful components of a very successful agricultural education program. Your job is to help the committee function at its most efficient levels, by helping to create an environment where the members feel empowered to truly give advice that will improve the program from their perspective. Thus, multiple perspectives are needed, as you will read in several of the articles. Everyone that is part of the committee is looking out for the best of the program and the students, and for that we should all be grateful to our advisory committee members. Reflect on the personal stories in this issue, and I am sure you will find nuggets of knowledge that you can take away and use immediately. Whether you are just starting out in your first year of teaching, or you are in your 30th year of teaching, I am sure you will find something useful in the pages to come. Enjoy!

John C. Ewing is an Associate Professor at The Pennsylvania State University and Editor of ***The Agricultural Education Magazine.***

Front Cover: Madalynn Veit working with Sam Hayes Jr. as he demonstrates how to band a lamb's tail. Madalynn went on to successful dock all 9 tails. Submitted by Tiffany Hoy, Tyrone, PA

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THEME EDITOR COMMENTS

Advisory Committees: Advise, Assist, and Advocate

by Bart Gill

Program advisory committees are essential to developing, expanding, maintaining, and evaluating a high quality agriculture education program. A program advisory committee is a representative group of individuals whose experience and abilities represent a cross section of a particular occupational area. The primary purpose of the local program advisory committee is to assist educators in establishing, operating, and evaluating programs which serve the needs of students, business and industry, and to provide expertise pertaining to technological change.

The purpose of a program advisory committee is to:

- Advise

The advisory committee assesses specific areas of the CTE program and makes suggestions and recommendations for improvement, such as curriculum modifications, updates to facilities/budget/student competencies, purchase of new instructional materials and equipment, or adoption of a new safety policy.

- Assist

The advisory committee helps the instructor(s) and/or administrator carry out specific activities. These activities could include judging competitive skill events, setting up a scholarship program or working to identify and arrange meaningful structured learning experiences (SLEs) for students in the program.

- Advocate

The advisory committee promotes the CTE program throughout the community and strives to improve the relationships between CTE educators, business/industry partners, and/or the community. Promotion or marketing could include talking to legislators, speaking for career and technical education at board meetings, writing articles for local newspapers or obtaining media coverage for special events.

> "The primary purpose of the local program advisory committee is to assist educators in establishing, operating, and evaluating programs which serve the needs of students, business and industry, and to provide expertise pertaining to technological change."

The articles in this issue recap personal experiences of individuals in the agriculture education profession who are at different points in their careers. The authors of the articles are current agriculture education instructors, state agriculture education/FFA staff, school administrators, or teacher educators. All of the authors have spent time in the agriculture education classroom and have personal experience with program advisory committees. The articles outline how program advisory committees have played a role in reinstating programs, expanding programs, directing programs, and evaluating programs. Each author has provided advice based on their personal experiences with program advisory committees and how those committees have impacted their program.

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Advisory Committee Provides a Firm Foundation for an Agricultural Education Program

by Wyatt McGrew

The Official FFA Manual advisor's portion of opening ceremonies states, "The owl is a time honored emblem of knowledge and wisdom. Being older than the rest of you, I am asked to advise you from time to time as the need arises…" The instructor/advisor is charged with the task of serving as a role model for the students. It is by their leadership that student growth occurs, yet at the same time, the instructor/advisor is not the sole reason that a program thrives. As agricultural education instructors come and go, programs continue to grow and develop students into future leaders. In addition to the instructor/advisor, it is also the responsibility of parents, community members, and business leaders to provide input for the program; but more specifically, these individuals should also help guide program development in order to fit the actual needs of the students and the community. The advisory committee for the Macomb Agriculture Education program came in the form of a group of individuals with diverse backgrounds who came together to re-instate a fallen program.

Prior to discussing the importance of my advisory committee in place at Macomb High, I should provide a few key facts. First, this is the 2nd year of the re-instated Agricultural Education program at Macomb High School in Macomb, Illinois. The program was discontinued in the late 1980's for various reasons. Prior to the fall of 2015, the Macomb School District held a cooperative agreement with a neighboring school district (beginning in the late 90's/early 00's), which allowed students to be bussed 25 minutes to a neighboring school district to participate in two agricultural education courses, which in turn allowed them to be members of the FFA chapter. While this arrangement gave some students the opportunity to pursue paths in agricultural education, out of the approximately 575 high school students at Macomb High School the highest number of enrolled students in agricultural education in recent years was 17. Even though Macomb, Illinois is a rural community, it was not until 2010 that a group of individuals came together with the end goal of re-establishing agricultural education and the FFA within Macomb High School.

"In addition to the instructor/advisor, it is also the responsibility of parents, community members, and business leaders to provide input for the program; but more specifically, these individuals should also help guide program development in order to fit the actual needs of the students and the community."

The Macomb Agriscience Association (MAA) came together as a united group and approached the Macomb CUSD 185 Board of Education. It was only after several failed attempts, however that the MAA and the MCUSD 185 school board came to an agreement. In short, the board of education agreed to re-instate the Agricultural Education program at MHS, however the program would be fully funded by proceeds raised by the MAA for the first three years of the program. If and only if, the program could prove sustainability after three years the school district itself would then take over the financial responsibilities of operation.

In addition to the fundraising efforts, the committee was presented with another challenge: collecting data to prove that there was interest among students at Macomb High School and that reinstating the agricultural education program would be a worthwhile effort. To do this, the group developed student surveys, then distributed those surveys to junior high – 8th grade students, collected and summarized the data to the school board. The group met with the district's curriculum development committee and approached them with lesson plans provided through MyCaert™. These lesson plans provided evidence as to how agricultural education serves as an applied English course, applied mathematics, applied sciences, etc. Additionally, the group drafted a working agreement, which was eventually approved and adopted by the MCUSD 185 school board. At this point, the agricultural education program at Macomb High

school was officially set to become a reinstated program in the fall of 2015.

Critics of the MAA could initially identify the organization as strictly a fundraising group. To some degree, the argument would be true, however especially since August of 2015, MAA has become much more than just the purse of the agricultural education program. You see, in my opinion, the function and purpose of an advisory group is to be just as the name states, a group that advises the FFA advisor/agricultural education instructor on the needs of the program, makes recommendations as to curriculum opportunities or adaptations, and help stimulate community support for the Agricultural Education program. Members of this group continue to provide feedback, which in the early stages of this program at Macomb High School, is crucial and vital to the overall success and future sustainability of the program and the FFA Chapter.

Many FFA Advisors have a different name for their local advisory group. Those advisors and programs call their advisory group the local FFA alumni affiliate. Some programs intermix the two terms, because of small numbers of community members and some advisors mix the two because of the time restraints of holding another meeting during one of the nights of the week. To some, the argument becomes, "well we are probably going to talk about the program during my advisors report anyway, so I'll just count this meeting as my advisory council meeting for grant credit." I offer one piece of advice to those programs: establish a specific advisory committee separate of the local FFA Alumni affiliate. I am not suggesting that the advisory committee meet every week; or even every month. There are advisory groups that meet bi-monthly, some that meet only twice per year, and some that only meet at the end of the year in order to review the program, advisor's reports, and make recommendation as to program changes for the future.

I suggest that the alumni and the advisory committee remain separate with good reason. In the fall of 2016, a few members of the MAA along with members of the community established the Macomb FFA Alumni Association. This group has already grown in excess of 40 members who attend their monthly meetings. Through the alumni's efforts they have worked to plan the 1st Annual "Backin' the Blue & Gold" Scholarship Auction in December of 2016, which grossed over $50,000 to be utilized for scholarships for students to attend FFA leadership functions, as well as attend post-secondary education or the military.

While these two groups include some of the same individuals, the one thing to take away from this suggestion is that by bringing together a small group of people as an advisory committee with diverse backgrounds, the program itself and the instructor are able to make changes and adaptations based on recommendations from the smaller group. This is different from the FFA Alumni Affiliates, for which we are always seeking new membership and working to provide new opportunities for the FFA members through community service opportunities, scholarship opportunities, and volunteer efforts. The FFA Alumni Affiliates rally the troops and stimulate community support for the program. Where there is community support, there is an agricultural education program and a quality FFA chapter to go with it. In contrast, it is the purpose of the advisory councils, and groups such as the Macomb Agriscience Association, to provide curriculum recommendations, program feedback, and work directly with the Agricultural Education Instructor, to provide a quality and sustainable agricultural education program in which the students are prepared to graduate and go on to meet the needs of the industry as a whole. It is because of the Macomb Agriscience Association that the program at Macomb High School exists. It is because of the Macomb FFA Alumni Association that FFA members are provided with a support group to assist in the educational process. Finally, to maintain a quality agricultural education program, it takes a combination of both groups' (advisory and alumni) efforts to sustain a high quality and industry based agricultural education program!

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A Beginners Guide to Creating an Effective Advisory Committee

by Chaney Mosley

Advisory committees have been a mainstay of school based agricultural education programs for years. It makes sense – guidance and support from the local agriculture industry is imperative for an agricultural education program to thrive, though, it's easier said than done. With that, here are five steps to creating an effective advisory committee.

Step 1 - Know the what and why.

Advisory committees simply for the sake of "checking a box" do not add value to a program. Admittedly, I've done it myself. In my first few years of teaching, I knew I had to assemble an advisory committee. So, without much thought or intention, I asked around for a few names of people in the community who would be willing to serve. I scheduled a meeting at the beginning and ending of the school year, ordered some pizza, and shared with these three people our program goals and accomplishments. As a twenty-four year old novice teacher, I thought I was crushing it! That was before I really understood advisory committees.

So, here's what you need to know. An advisory committee is a group of stakeholders, organized to provide advice and offer assistance to you, as the agriculture teacher, on your total agricultural education program (instruction, SAE, and FFA related activities). But why would an agriculture teacher need non-educators to provide advice on how to run his or her program? This is a legitimate question with a relatively easy but often overlooked answer: relevance, rigor, relationships, and readiness. The agriculture industry is forever changing as methods are improved, new technologies are introduced, and scientific discoveries are made. Advisory committees can help programs maintain relevance with the agriculture industry and can also review curriculum or provide suggestions for authentic learning experiences, which can make a program more rigorous. Committee members may provide work-based learning experiences as well, such as job show, field trip, or career development event practice opportunities, which enable students to develop relationships with industry professionals. As these things occur, the overall student experience is enhanced which leads to greater student readiness for postsecondary pursuits.

Step 2 - Find the right people.

Composition of the advisory committee is an important detail. Teachers often wonder how many people should be on the committee and what experience should they have. There is not a magic formula to determining the best size; however, there are some key factors that will help.

I have found that most ag program advisory committees are comprised of people who work in the industry. This is important. Since agriculture programs are preparing students for postsecondary study and careers in agriculture, employers are a key stakeholder. They have a vested interest in the product our programs, because our students represent future employees. The agriculture industry, though, is quite broad. So, it doesn't suffice to simply have current workers in the industry on an advisory committee. For example, what value would a local greenhouse owner add to a veterinary science program of study? Remembering the what and why of advisory committees, those from industry should reflect the programs of study being offered so that their expertise is aligned with what we teach our students. I recommend at least two industry representatives for each program of study offered, but not more than five. Too many voices can be disruptive to the work of the committee.

In addition to industry representatives, there are a few other important stakeholders that should have a seat on the committee: students, parents, and higher education. Students are important to an advisory committee if we value student voice. Parental voice is also important, as parents are stakeholders of their child's education. It is good for industry to hear the perspective of parents and see them as partners. Finally, as each program of study should ideally be aligned with a local or regional postsecondary education program, inviting a higher education (technical college, community college, four-year college, etc.) representative communicates vertical align-

ment of your program. For each of these stakeholder groups, I recommend one person for each program of study offered.

Step 3 – Identify roles and responsibilities.

Once the committee members have been established, you craft a set of bylaws that outline membership requirements, expectations, roles and responsibilities. This may sound like overkill, but consider the purpose and advantage of having a set of bylaws.

Students from the alternative energy program at Whites Creek High School in Nashville, TN with advisory committee members from Nissan.

Bylaws are written rules that govern how an organization operates. Generally, bylaws define things like purpose, membership requirements, officers' titles and responsibilities, how offices are selected, how meetings are conducted, how often meetings are held, and roles and responsibilities. If you have worked with any sort of group that supports another (booster club, alumni organization, etc.) you are likely familiar with the type of politics or drama that can arise. Determining how your advisory committee will operate and writing that down helps the committee run smoothly, answers tough questions (such as what to do about a disengaged member), saves time and deliberation, helps define mission, and keeps the committee focused on its purpose. Regarding officers, at minimum, you need a chair, a co-chair, and a secretary. The student member should not hold office, nor should the agriculture teacher – let the adults who are not directly involved in your program hold these roles.

Step 4 - Convene the committee.

Once you have committee members identified, it's time to meet. Working with industry partners, though, can make scheduling a meeting difficult. For those on the advisory committee, it might be easier to meet during the day rather than after school. Flexibility is important - most teachers have a planning period during which meetings could be scheduled, or you could ask another teacher to cover your class while you host the meeting. Remember, those attending are doing you a favor, so accommodate committee member schedules when possible.

At your first meeting, have nametags for each participant with printed meeting agendas and provide time for introductions. Dedicate time to discussing the purpose of the advisory committee and review the proposed bylaws (this means you will have to design the bylaws ahead of time). Be open to revising the bylaws based on feedback from committee members and identify people willing to serve in leadership roles. As the teacher, you must decide how often the advisory committee will meet. At minimum, four meetings each year is appropriate, allow you to meet before the year starts, twice throughout the year, and then a final meeting to reflect on the previous year. At the first meeting, set the dates for future meetings over the course of the year.

Meeting structure should be consistent. When developing the agenda, seek input from committee members and share the agenda a few days prior to meeting. Ensure minutes are taken and provide committee members with a copy of the minutes within one week. Feeding committee members is not always necessary; however, if the meeting occurs during a typical meal time such as lunch or dinner, providing food would be a nice touch. At minimum, offer light refreshments such as coffee, water and snacks.

Step 5 - Plan your work and work your plan.

Have you ever attended a meeting and left feeling your time had been wasted? It's not fun. Planning the work of a committee is essential to keeping committee members engaged. Meetings should be used as a time to inform and garner feedback, and each meeting could have a specific focus, with some regularly occurring items on the agenda.

Once established, the first meeting of the year could focus on sharing annual goals of the program and receiving committee input. I recall an advisory committee meeting where the program leaders (teachers) had set a goal of 50% of eleventh grade students participating in a job shadow. The committee members pushed back, insisting the goal was not ambitious and recommended changing the goal to 75% and

then offered to help make sure the goal was met by taking on hosting more students. That's how an advisory committee should work! Each meeting thereafter could provide an update on progress toward accomplishing goals. The second meeting might focus on reviewing program curriculum and equipment for industry relevance and authenticity. A committee member might note that

At a county wide advisory committee meeting in Nashville, TN, representatives from the local Chamber of Commerce, area businesses, and school personnel discuss program offerings.

a piece of equipment is outdated and offer to help purchase more modern equipment. The third meeting could focus on discussing industry trends and workforce needs – an opportunity for the program to receive information and expertise for committee members. The discussion could be followed by brainstorming how to make sure the program reflects trends and workforce needs. Perhaps the fourth meeting is dedicated to reviewing data for the year. Topics could include participation in FFA events, student performance indicators such as average daily attendance, test scores on ACT or SAT, college acceptance, industry certifications, and early college credit earned, among others. These are ideas, not requirements – figure out what topics would work best for your program!

Other things to consider. Meetings can sometimes be cumbersome or stale and each program is unique, so assembling an advisory committee as discussed may not be easy. Here are a few more ideas to consider:

- Advisory committee meetings do not have to occur at the school. You could ask some of your industry partners to host the meeting at their place of business or you could also meet at a local restaurant, a community center or some other place in the community.
- If in an area where agriculture industry professionals are limited and there are multiple agriculture programs in the area, consider having a county-wide advisory committee where all school-based programs are represented. This might increase industry participation by decreasing the burden being placed on businesses if asked to serve on multiple advisory committees.
- Your school could have a career and technical education (CTE) advisory committee instead of only having an agriculture committee. Schools in Nashville, TN have found this approach to be very effective by expanding the quantity and types of opportunities afforded to students.
- Recognize your committee members. If you have an FFA chapter banquet at the end of the year, be sure to invite your committee members and publicly recognize them. Other ways to recognize them for their contributions include student written thank you notes, giving them plants from your greenhouse or mechanics projects created by students, or hosting a breakfast for committee members.

With all of the responsibilities an agriculture teacher already has, assembling an advisory committee may be seen as just another task. When done correctly, though, effective advisory committees have the potential to revolutionize agriculture education programs and enhance the quality of student experiences.

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If You Build It, They Will Come!

by Andrew J. Baker

I have been fortunate over the years to be associated with passionate, energetic, and functional advisory councils at both the secondary and post-secondary levels. However, these councils did not magically create themselves. Assembling an effective advisory council takes time and preparation to design and implement a functional group of individuals who share the same passion for meeting the objectives for which the group was designated to serve. If you are looking for a recipe to create an advisory council from scratch or resurrect an existing council, you must be prepared to dedicate some time and effort to ensure the group functions effectively and efficiently. Here are the purposes of an effective advisory council:

1) To make beneficial recommendations to advance the program;

2) To support and bridge gaps between the program and administration;

3) To be positive representatives within the community for the program;

4) To elect officers (Chair, Vice-Chair, Secretary) and hold business-like meetings;

5) To be task and business oriented;

6) To have a regularly reviewed constitution and by-laws; and

7) To develop synergy for the program.

Who should be on an advisory council?

Determining who should be on an advisory council is not an easy task and I am sure if you ask ten individuals, you would receive ten different answers. I discovered that the individuals that you think about first, may not be the most effective members. It is the unlikely individuals that seem to be the most engaged and active members. I believe this to be the case as their participation in the advisory council is new, fresh, and empowers them to learn more about your program. A doubter may become a believer after being selected to the group. Do not get me wrong, you still need those members that are knowledgeable and are strong supporters of your program, but you also need individuals who will question recommendations and force the group to rethink the normal and standard protocol. Here is some criteria about who should be represented on your advisory council:

1) Individuals should be volunteers who are willing to serve;

2) Individuals should represent a diverse sample of the community; and

3) Individuals should be prepared to take the time to serve on the council.

Take note, knowledge of the program is not included on the list. I believe an individual with little knowledge about a program, may have the potential to be the most effective member as they bring a clean slate with no preconceived ideas about the program to the group and can be educated about the unique qualities of the program. They can understand the strengths of your program, but can also identify embedded weaknesses that other members refuse to acknowledge.

A good example of an individual who lacked knowledge of a program but became a strong advisory member was a member of my advisory council for my high school agriculture program. He served on our local School Board and did not have a student in my program. He was very pro-athletics and knew very little about production agriculture, even though he lived in a rural community. He soon became very educated about my agriculture program and became a voice for my program at school board meetings. The school support for my program certainly increased after his election to the advisory council. This just goes to show that one individual can impact your program by simply volunteering their time to serve on an advisory council. You also need to be careful identifying individuals who would be the mostly likely candidates for your council, because they might

not have the time or the willingness to serve. A local producer or agribusiness person seem to be the logical choices for advisory council members, but if they do not have the time to serve, they could be detrimental to the functionality of the group.

What is my role as the agriculture education instructor/FFA Advisor within the advisory council?

As the instructor/advisor this question is tricky for some and easy for others. Here are some of suggestions when you are designing an advisory council:

1. As an instructor/advisor, you are a non-voting member of the council and provide information to the group about the program;
2. Develop a structured rotational schedule (terms and term limits) for existing members and newly appointed members;
3. Schedule meetings throughout the calendar year and set the dates during the first meeting;
4. Allow the elected officers to conduct the meetings;
5. Assist in constructing an agenda with the elected officers
6. Establish a purpose or a charge for the council at each meeting;
7. Establish a nominating committee to present a slate of new members for the group to vote on each year;
8. Establish a data base of interested individuals who are willing to serve and allow nominating committee to make decisions on replacement members;
9. Program advisory councils should consist of 9 or 12 members to assist with rotation of membership; 3 or 4 members should be rotated in and out every year;
10. Make sure that your alumni affiliation and your advisory council are two separate entities; and
11. Have the council involved with decisions that will alleviate internal stress for you, such as selecting chapter proficiencies and conducting chapter officer interviews.

The aforementioned suggestions are provided to help advance an existing council, by integrating a few of these ideas over the next couple of years, or establish a set of criteria to begin the development of a new advisory council. During my professional career, I have experienced many beneficial outcomes of a highly functional advisory councils.

Remember, if you build it, they will come! If you build a small shed, you may not experience superior results from your group, but if you build a five-bedroom, five-bath, cathedral ceiling home with an in-ground pool and a tennis court, they will come in droves to be a part of something special. My current advisory council consists of individuals who are dedicated, energetic, passionate, and ready to work. We also have developed a data base of individuals who are willing and able to serve on the council to advance our program to new heights, when given the opportunity. The development of this group did not happen overnight, but the group itself keeps the synergy alive and well. I actually look forward to meetings with the advisory council. My advisory council has a tendency to recharge me personally and they have pushed me even harder to seek additional opportunities for our academic unit. Our group even insists on playing a role in our faculty searches and being active in other departmental activities. I purposefully hold some of our meetings during our departmental recruitment activities, so the members can mingle with prospective students and their parents. Lastly, I would encourage anyone responsible for overseeing a program to establish an advisory council or advance their existing council to achieve at a higher level. Please feel free to contact me if you have any additional questions that may be stimulated after reading this article.

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THEME ARTICLE

A Program Advisory Committee's Role in Program Expansion

by Karen Breeding

Thinking back on our lives, I am sure that we all have milestones that make particular years stand out. For me, 2003 was a standout year. In 2003, I graduated college, moved to Delaware from Pennsylvania, got married, moved into my first house, bought my first new to me vehicle, and I began teaching Agriscience Education at Woodbridge High School in Bridgeville, Delaware. I consider all of those events to be milestones in my life and they each hold a special spot in my memory bank. Two of those milestones turned into lifetime commitments for me: my marriage and teaching Agriscience Education.

Like many, my passion for Agriscience Education and FFA began in high school. After graduating high school, I had the great opportunity to serve as a Pennsylvania State FFA Officer, in 1998-1999. My year as a State FFA Officer confirmed my passion for Agriscience Education and FFA. After serving as a State FFA Officer, I was ready to begin my chosen career as I entered into college as an Agriscience Education major. My year as a State FFA Officer allowed me to see numerous Agriscience education programs throughout Pennsylvania. During those visits I realized two things: 1) students, especially the younger ones, had limited knowledge about food and fiber production; and 2) there was a need for Agriscience Education teachers. I decided I wanted to make a difference in a community through Agriscience Education and apply what I learned in FFA and Agriscience Education courses. I wanted to be a teacher in a program that would challenge me and push me to give my best, and I found that challenge at Woodbridge High School.

Bridgeville, is in the heart of rural Delaware, well as rural as you can be with only three counties! When I first looked into the position, I learned quickly that the Woodbridge Agriscience program would give me the challenge I desired and the opportunity to work with a community that wanted change. I began my teaching career in a Structural Systems classroom. I learned how to layout rafters, frame walls, and apply shingles to a roof. These are great skills to have, but this was not my ideal position. I decided we needed to shake things up in the Woodbridge program. With the support of my colleagues, we began redesigning the course offerings and curriculum. Once we had our "Cadillac" version of the curriculum completed, we consulted a few experienced Agriscience Education teachers to assist us in determining our next step. Their unanimous suggestion was, "Build an Advisory Committee". After hearing their suggestion, I thought to myself that building an advisory committee sounds easy, I just need people. Well I learned quickly that we needed more than just people, we needed the RIGHT people.

My colleagues and I began by creating a list of industry leaders, parents, alumni, and producers. As we reviewed our list we discovered we had a problem… we had too many people! We had an individual for every sector of the Agriculture industry. The list became overwhelming. We were perplexed on how to narrow it down. Then it dawned on us to go back to our "Cadillac" curriculum and ask ourselves two important questions:

1) What do we want the future of the Woodbridge Agrisicence Program to look like?; and

2) Who will best assist us in reaching our goals?

These two questions are essential when creating an advisory committee. One thing to keep in mind is that an advisory committee needs to be diverse and represent the local agriculture industry.

After some discussion and planning, my colleagues and I decided that implementing an Animal Science pathway was one of the main goals for the Woodbridge Agriscience program and we knew this would be a big challenge. At the time, an Animal Science pathway did not exist at Woodbridge and the facilities were not equipped to begin one. With the assistance of the advisory committee, the request process was set in motion to build an animal facility on school property outside of town. We were asking for a facili-

ty, but did not have animal science classes or student enrollment in an animal science pathway to justify the need for this facility. From the start of the planning process, our administration made it a point to include us. To start out, our administration posed the following questions: 1) How will the facility be designed?; 2) What does it need to include?; 3) What types of animals are going to be housed?; and 4) Do you think students are going to enroll in the pathway?

At this point, we had answered the first of our two initial questions: What do we want the future of the Woodbridge Agrisicence Program to look like? We knew we wanted to transition from a two pathway program to a three pathway program and we wanted the third pathway to be Animal Science. Now we had to tackle the second question: Who will best assist us in reaching our goals? In our minds, it made sense to build an advisory committee heavy with people in the animal science industry so we went back to the list and highlighted those individuals with experience in animal facilities, production and care. After highlighting those individuals, we realized those were the people who were already consulted about the facility needs and design. We then went back to the list and selected plant science industry members to meet the need of our current pathway. Next we moved to parents, this is a special group of stakeholders who will be invested because they want what is best for their kids. We have always had great support from parents of our students. The parents bring to the table a reality of where students really are and their thought process on how to achieve their career goals. Our third group were alumni. Alumni are great advisory members because they have been there and have seen what works best. They are the product of our programs and they understand how the program functions. Then we moved on to our students. Students should be part of the advisory committee because they are the ones our other members really want to hear. It is fine for the teacher to voice a need, but when students voice a need, the committee really steps up. Engaging students in the advisory committee is also a great opportunity to recruit future advisory committee members.

Our advisory committee was integral in designing the Woodbridge animal facility and they helped to pass a funding referendum in a community who had not passed a referendum in many years. Our Animal Science Pathway now serves over 120 students every year and has become a major recruitment tool for our Woodbridge High School.

Here are a few things I have learned over the years in regards to an advisory committee: 1) keep it consistent; 2) be efficient during meetings; 3) do not allow it to become a negative atmosphere; 4) focus on the good in the program; 5) develop a protocol to ensure you have the right people to advance your program; and 6) do not meet too often. Our advisory committee meets twice a year and communicates between meetings via email. Remember agriculture is an ever changing industry. Your program and advisory committee should always be changing to ensure curricula is addressing the most current needs of the agriculture industry. Remember your goal is to find the right people to advance your program. Ultimately, you are striving to make the agriculture education program at your school a vital part of the community and to assist your students in becoming a contributing member of the agriculture industry.

In conclusion, I leave you with a checklist of items to use as you build or revamp your advisory committee.

1. Ask yourself, where do you want your program to go?
2. Who will best serve the mission of the program?
3. Who can help keep us up to date on industry needs?
4. What are my local areas agricultural needs?
5. Make a list, include industry representatives, parents, alumni, and students.
6. Sort the list using the questions in 1-4.
7. Schedule a meeting, send invites.
8. Make an agenda and follow it.
9. Send out minutes to all members, administrators, and other stakeholders
10. Feed them!

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The Commandments of the Advisory Committees

by Michael Womochil

#1 Thou shalt have a committee established for the purpose of advisory to the Ag Ed Program.

#2 Thou shalt conduct a minimum of two meetings a year with the Committee for Advisory.

#3 Thou shalt maintain minutes of Committee for Advisory meetings filed in the program records.

#4 The Committee for Advisory shall provide direction to the Agricultural Education program to ensure its alignment with the community and the industry.

While these commandments may not be exactly what your state has, they are very similar to the expectations that every ag ed teacher across the country faces when it comes to advisory committee. You have to have one, you have to meet, you have to maintain records, etc. To assist you meeting these demands we have created guide books, templates for constitutions, sample communications, and other documents designed for constructing and conducting the committee. What we haven't done a good job of is helping the teacher determine what should happen in the advisory committee meeting. Mandating the teacher establishes a committee and meet at least twice a year forces only the action. The outcome of that action is determined by the understanding of the teacher and the individuals on the committee as to what should happen during and as a result of the meetings. If this sounds familiar and you find yourself asking the following questions then please continue reading.

#1 What does it mean to provide guidance to the program to assure industry and community alignment?

#2 Is my committee serving as a "sail" to move forward or an "anchor" keeping the program tied to what it was when they went through the school?

#3 Should I focus on FFA, on SAE, on the classroom or on all three in each meeting?

#4 Is my committee interested only on the FFA part of the program and not providing input on the other two components of ag ed?

#5 Are the recommendations of my committee ignored by administration as being irrelevant to the school's education goals?

Is it possible for the advisory committee to actually benefit the program, the teachers and students? What could we accomplish if the focus of the advisory committee was on identifying the strengths and weaknesses of the program and assisting the instructor address areas where improvement and growth are needed? What if the administration was involved in this process so they had buy-in to the action plan for growth? What if this process moved the advisory committee to envision a modern ag ed program and not the one from their high school career? What if this process kept the committee from rubber-stamping everything or from being focused on only helping with FFA? Is this an unreachable dream that occurs only in the deep sleep from total exhaustion at the end of the school year?

What if there was a tool created that provided you the assistance to make this "committee of advisory utopia" happen? There is! It's called the National Quality Program Standards (NQPS) and is the answer to all the above advisory committee questions and frustrations. NQPS, originally created by the National Council for Agricultural Education in 2008 and revised in 2016, is focused on assisting the local Agricultural Education program compare its current status against a set of national standards and quality indicators that are essential for program success. It is structured with standards in seven key areas of program success ranging from curriculum & instruction, assessment, facilities, work-based learning, personal development, program marketing to teacher professional development and program evaluation and growth. Each of these areas have multiple quality indicators with rubrics designed to assist the local program to assess their current status, identify artifacts that justify that status, and provide suggestions on how improvement can be made in those areas.

Using the advisory committee, which includes the administration, to implement the NQPS survey process for the program has great advantages for the teacher.

- It provides purpose and structure to the advisory committee meeting. If the meeting agenda focuses on conducting one or more NQPS standards it provides a purpose to the meeting, keeps the committee on task and focuses on items of importance.

- It establishes program expectations that are based on today's

educational environment, for today's students and tomorrow's industry needs.

- It exposes committee members and administration to expectations of the total ag ed program regardless of the local program's past structure and involvement.

- It illuminates the demands on the individual teacher to deliver on the expectations of a total program which can support the need for extended contracts, additional teachers and greater resources.

- It provides the opportunity for the teacher to receive support and credit for the good things that are happening in the program.

Of course, just conducting a survey of the current program status against set criteria merely tells you where you are at. It does not move the program toward improvement. This is why the NQPS revision implemented an additional step for creation of the Program Growth Plan. This is where the advisory committee, including your administration, identify the target areas where attention, focus and resources should be applied to move the program forward toward improvement. It walks the team through identification of the quality indicators where the program shows a need for improvement, a prioritization of those areas and development of action plans to address in the next year. For example, if having SAE for all students is an area where the program needs to improve, it provides the committee a way to determine what needs to be done to accomplish this, who is responsible for individual tasks and when should those tasks be completed. This growth plan now becomes an agenda item for future advisory committee meetings, in addition to conducting a survey of additional NQPS standards. So, instead of a meeting agenda that is vague, lacks focus, and provides opportunity for individuals to hijack the discussion, you now start the meeting with an update and review of the growth plan for SAE development. After individuals have reported on what has occurred to address needs in those areas, the committee can then start the survey on program marketing. A committee could feasibly meet monthly if they determined they wanted to move that quickly or continue to meet semi-annually and conduct the survey over several years. The time frame is secondary to the importance of targeting the effort toward continuous program improvement based on current, nationally accepted quality standards.

To make this process easier to implement and sustain, the Council has undertaken the creation of an online delivery system where the survey results, growth plan creation and implementation, is conducted as a component of the local program's FFA.org account. This keeps the NQPS survey data and growth plans connected to the program and not the individual teacher. It doesn't reside in a notebook on the shelf, it isn't lost if a teacher leaves the program, nor is it easy to ignore or forget about. The NQPS process is not a one time, check the box activity. It is a dynamic ongoing process that the agricultural education program's entire leadership team, including the building administrator, is involved in and owns. Keeping the NQPS on the programs FFA.org account supports this endeavor.

So, instead of creating frustration, if we just revise those initial commandments for the advisory committee the entire task becomes meaningful and productive for you and your program. You can start this "Advisory Committee Enlightenment" by searching the NQPS document at https://www.ffa.org/SiteCollectionDocuments/tc_national_quality_program_standards_revised.pdf on the National Council's website. The online system will be available this summer on FFA.org so make sure you attend the training at your summer teacher's conference provided by your LPS representative.

And, please abide by the following commandments in the future.

#1 Thou shalt have a committee established for the purpose of advisory to the Ag Ed Program.

#2 The "Committee for Advisory" shalt engage the NQPS in an ongoing process to ensure continuous program improvement and growth.

#3 Thou shalt develop and implement growth plans based on results of the NQPS survey.

#4 Thou shalt conduct meetings as often as desired to provide for committee engagement and program growth.

#5 The Ag Ed program, the teacher, and the students shalt receive positive support, attention and impact as a result of the "Committee for Advisory" actions and efforts.

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Don't Underestimate the Power of Your Advisory Council!

by Doug Masser and Jeremy Falk

From Day 1, the agriculture teacher is a local celebrity! A stroll through the local Wal-Mart almost always results in a ten-minute conversation with someone's grandparents about how great the banquet was last week. A simple trip to the post office also takes longer than expected because a community member was raving about the great elementary agriculture awareness day the high school agricultural education students hosted last week, which was printed in the newspaper that day. Rural and urban programs alike experience this commonality where the agriculture teacher is seen as a positive agent of change in the lives of students; someone that the students and community cannot live without.

> "In the realm of agricultural education, advisory councils are our primary pathways to connect the school to the community."

In a community that loves and appreciates agricultural education, it is easy to take the constant community support for granted and forget that not every program has the luxury of supportive network. There are some teachers who struggle to foster that support or even question if it is worth the time and effort to fight that battle. Experts across the country continually reinforced the importance of a supportive, effective advisory council.

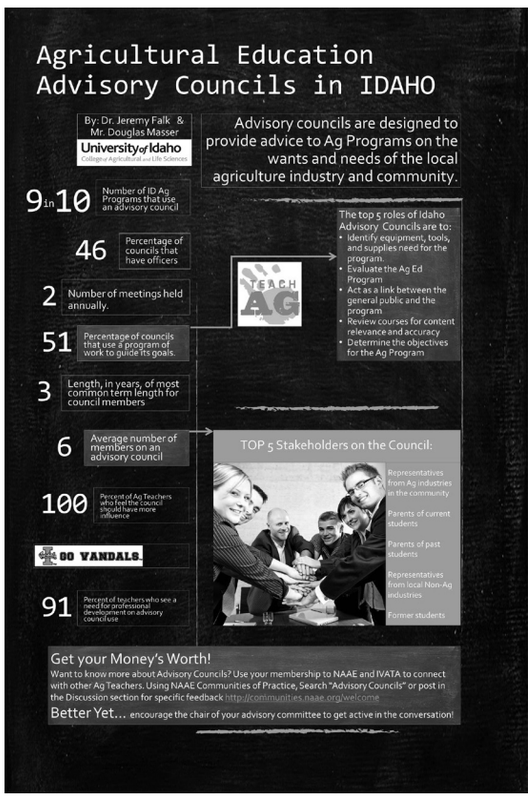
Foundations of Agricultural Education by Talbert, Vaughn, Croom, and Lee (which is a commonly used text for pre-service agricultural education courses) states, "One of the most important characteristics of a local agricultural education program is the interaction between the program and the community served by the school" (p. 122). In the realm of agricultural education, advisory councils are our primary pathways to connect the school to the community. Even though anecdotally we know the importance of the advisory councils and experts from across the country attest to their importance, how many programs are actually reaping the benefits? Two recent studies done in Pennsylvania and Idaho were conducted to answer that question exactly. Little is known about advisory council use in agricultural education except that every advisory council out there is like a family: some close-knit and helpful and others somewhat dysfunctional and chaotic. Regardless, every council is different to say the least!

Both studies surveyed all agricultural instructors in those states to gather data on advisory council implementation and use. The data boils down to several key points that all educators can learn from and improve the use of their local agricultural education advisory councils. While there were other data collected, these top three points warrant some discussion.

Fact: Approximately 90% of agriculture programs across the nation have an active advisory council.

Fact: Between 50-80% of the programs studied DO NOT have a program of work or other guiding document for their advisory council.

Fact: Agriculture teachers agree that they could use their advisory council more than they currently do.



The goal of the advisory council research was to sketch a picture of what advisory council support looked like in various states across the country. Now the challenge for every agriculture teacher is to take that sketch, reflect on the current status of the advisory council support in his or her program, and begin to paint a new picture of what agricultural education looks like with full community support. One might say, "90%? That isn't so bad" but consider this; that leaves 10% of programs that are not maximizing the benefits that can be offered to their students. This could mean less FFA events, outdated materials and equipment, or perhaps the worst scenario of all, the elimination of a program. Perhaps those 90% could use their advisory council more effectively, too.

"As a new teacher or even a veteran teacher, it is important to put the right people on your advisory council."

Awesome! So research tells us that we as a profession are not perfect when it comes to advisory council involvement. Groundbreaking, I know. But research, textbooks, stories from agriculture teachers and comments from agricultural experts mirror the importance of advisory councils and community support. That leads us up to a very important question; where do we go from here? Do we throw in the towel and close the program because an advisory council is not in place or has a council, but it's dysfunctional? Or, do we follow the advice of our friends across the pond and "Keep calm and carry on?"

As always, every situation is different but there are ways to circumvent this issue of community support through the use of an effective advisory council. To help plant a seed of change in every program, consider the following tips surfaced from the research on strengthening that program-advisory council bond. Who knows, the effort you put into this endeavor now may take your program to a whole new level you never dreamed was possible.

Choose the right people for your council!

As a new teacher or even a veteran teacher, it is important to put the right people on your advisory council. The key is not to simply fill the council with placeholders that represent various stakeholders in the community. Rather, dynamic industry representatives, influential community members, and dedicated faculty, staff, and parents should be your go-to group.

Putting influential community members on the council is vital. For one, putting prominent community members such as local politicians, service workers, or other overachievers brings the advisory council into the spotlight. The council becomes more than just a group of laymen; it transforms into a group of "movers and shakers." A common excuse it that this cohort is already busy and don't have time for an advisory council position. As experience tells us though, it is the dedicated and involved individuals that know how to band together to accomplish a purpose.

Although it may not occur to most of us, adding a member that "stirs the pot" is often beneficial as well. This is a fine line to walk because this member must be supportive of the group but still isn't afraid to voice their own opinion. You may be pleasantly surprised how useful a new perspective on the same old issues can be for a program.

Considering the right people is important – but your program should also consider the term-limits for these volunteers. As you start a new academic year, you can set a term-length of three years to help provide structure for the volunteers to leave at a determined time – or to roll into an additional term.

Also think about:

- How many people should serve on our Advisory Council?
- Which industries are represented on our Advisory Council?

"Just as a program of activities for an FFA chapter is like a "roadmap" that describes what will be done in the upcoming year, a program of work for an advisory council is guiding force with goals and objectives that will be accomplished in the upcoming year."

- Who from the school administration could serve on our Advisory Council?
- What cultural representation should exist on our Advisory Council?
- Should students serve on an Advisory Council?

Develop a program of work to guide the advisory council

As we plan out our classes we often hear the phrase, "begin with the end in mind." An effective advisory council should follow this principle as well. Just as a program of activities for an FFA chapter is like a "roadmap" that describes what will be done in the upcoming year, a program of work for an advisory council is guiding force with goals and objectives that will be accomplished in the upcoming year.

Think about the many purposes of an advisory council:

Review or revise curriculum

- Support hiring of teaching positions
- Securing real examples in the community for students to experience agriculture
- Recommend technology and equipment updates for the program.

Further recommendations that came from our study on Advisory Councils include:

Have a Plan

- Program of Work
- Constitution/Bylaws
- Term Lengths
- Selection of Members

Work TOGETHER!

- Teacher helps guide a meeting
- Have dates set 3 months in advance

Know that it's for the Total Program.

- Include SAE and FFA as integral parts of the program.
- Don't take things personally

Show your successes – TOGETHER!

- Share meeting results with students, parents, school officials and community
- Thank the council publically
- Use a timeline of big (curricular) events to help new members, and you

In summary, advisory councils offer a great insight into the community your agriculture education program serves. As we strive to continually improve this great profession, take time to ruminate on community support for your program.

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Teachers Supporting Teachers: A Preservice Educator's Views on Cross-Curricular Collaboration

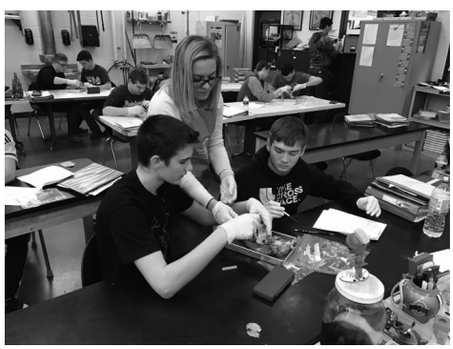
by Carley Snider

"Over the last 20 years, teacher learning has become one of the most important concerns of the educational establishment. It has been more or less assumed that teachers who know more teach better." (Lytle & Cochran-Smith, 1999)

Being an expert in a field of study is an excellent and attainable quality for an agriscience educator. Being an expert in all fields, a "Jack of All Trades" is an impossible quality that we often find agriscience teachers trying to obtain. Too often we, as educators, believe the myth that we must be content experts for all of our courses (L. 2016)

Agriscience Educators are especially guilty despite the fact that they are often planning for 3-6 different courses each year. Can you imagine that? Knowing all content in courses ranging from animal science to agribusiness, mechanical principles to natural resources, leadership and more. But, it's truly an expectation we give ourselves in the agriscience education profession. Why do we add this expectation to an already long list of expectations given to us by administration, students, community members and ourselves? Especially when we spend each day teaching down the hall from people who could be experts in one of those areas and who have a license to teach it! Instead of expecting ourselves to become the "Jack of All Trades," we can make our classroom a place for expertise and mastery learning by utilizing others who are experts in their field.

During my brief 15 weeks of student teaching at Amanda-Clearcreek High School in Amanda, Ohio , I experienced the struggle of expecting myself to know everything I taught as if I were an expert. As a young and new teacher, who had yet to even earn her license, I was far from being an expert on any content and being a "Jack of All Trades" was very clearly an impossible goal. But, it was one I spent my time as a student teacher having for myself. I taught a variety of courses ranging from animal anatomy to mechanical principles.



I had a strong basic understanding of the areas I taught but in some topics, my knowledge level didn't breach that elementary level of understanding. How did I decide to solve the problem? I spent hours of my precious time reading and surfing the Internet for facts and figures about the content areas where I lacked experience attempting to at least seem like an expert. Now yes, I do know that there will be times that obtaining information and knowledge in this capacity will be valuable. However, as I sit back and reflect on my experience, I can only think about the opportunities I missed out on to focus on improving my lesson planning, classroom management and lab activities. I also think a lot about communication.

Communication within a school district is monumental to its success. This is something we know. But communication or even better yet, collaboration amongst district teachers could expand learning opportunities for students while exciting and engaging them in necessary content. And

this extends to more than just fellow teachers in our districts; other agriscience teachers, community members and local professionals can bring great insight into a classroom. Lean on your advisory council or consider establishing one if you haven't yet. Collaboration of any sort will better our classrooms and our abilities as teachers (Meador, n.d)

This concept creates immense opportunities for classroom success. This concept is one that would have allowed me, as a student teacher, to engage in learning about a content area and still have time to improve my teaching methods as a preservice teacher. What a valuable combination those two are, especially for new teachers like me!

Lytle and Fecho said "Diminishing teacher isolation and creating more collegial environments for learning is not a simple proposition." (Lytle & Fecho, 1991) I agree! Educators love to get comfortable in their little space especially agriscience teachers who often have their own hallway or even building. And asking for help isn't always easy, especially when you're the new teacher on the block and trying to give a positive impression about your skills and knowledge. However, solving this problem and creating an environment conducive of teacher collaboration will open up learning opportunities for both educators and students.

"Effective teacher to teacher communication is vitally essential to your success as a teacher. Regular collaboration and team planning sessions are extremely valuable. Engaging in these practices has a positive impact on teacher effectiveness" (Meador) Wait, isn't effectiveness what we strive for? I know I do! Engaging with other educators either to plan a project-based learning model that is cross-curricular or to lean on their knowledge and resources can increase our ability to effectively educate our students. By leaving the "ag wing" once in awhile and asking questions or making plans with other teachers, we can reach our goal of effectively educating our students. We can even exceed our goal and watch our students reach mastery learning levels.

So, let's think about this. I'm a first year agiscience educator teaching a course on environmental science. Who better to utilize as a resource than the biology teacher down the hall? Utilizing the knowledge, skills, tools and resources of the biology teacher who also teaches this content can alleviate my stress as a "non-expert" in the area. It's as simple as walking down the hall and asking for help!

As a preservice teacher, I valued the assistance I received from other teachers in the building greatly. I know that I will strive to regularly collaborate with other teachers when I enter the profession. Will you?

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ARTICLE

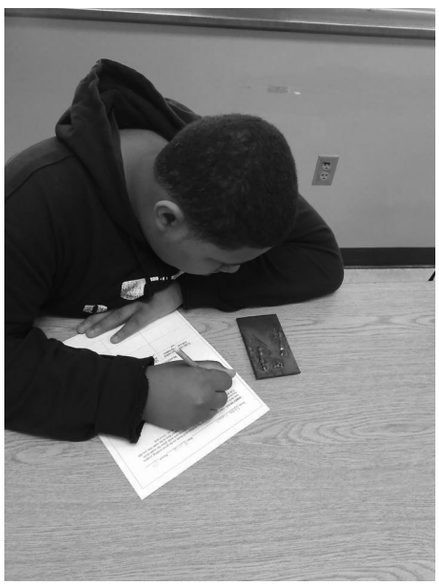
Developing and Emphasizing Critical Thinking and Communication Skills in Agricultural Mechanics Education: A Focus on a Welding Skill Evaluation Activity

by Trent Wells

Phipps, Osborne, Dyer, & Ball (2008) described that part of the role of school-based agricultural education (SBAE) should be to challenge students' intellectual capacities alongside their psychomotor skill abilities. These scholars further stated that teachers should be proactive in planning learning activities that promote students' individual abilities in a variety of areas, particularly in the development of logical thought. The concept of logical thought could include, in this context, critical thinking skills that revolve around self-evaluation. To take this notion further, the self-evaluation component could be used to develop communication skills that describe a particular item's, or set of items', outstanding qualities as well as poor qualities and needs for improvement. This is starting to sound similar to livestock evaluation, isn't it?

As an agricultural education teacher, I found that effective and useful evaluation could be a touchy and tricky subject in several content areas, such as during the welding portion of my agricultural mechanics course. Students wanted constant positive and constructive feedback as quickly as possible; I wanted to make sure that everyone got as much practice as possible during our course meeting time. During my first year, I quickly recognized that some students were naturally gifted with a certain level of dexterity while others weren't. Some students took more time than others to grasp the concepts of particular welding positions, hand movements, body positioning, and so forth. With limited time available during each class session, checking on each student's progress and critiquing weld beads was problematic at best. I wanted to provide as much critical feedback and corrective techniques to as many people as possible, but because there was one of me and over twenty of them in each class, I was, to say the least, stretched thin.

In response to these demands for my time, I instituted a different approach to self-evaluation that I had observed during my time as a graduate student at Iowa State University.

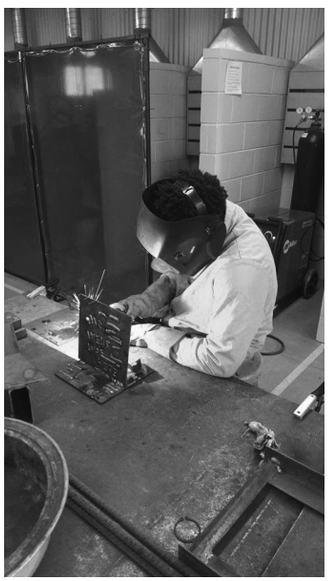


"As an agricultural education teacher, I found that effective and useful evaluation could be a touchy and tricky subject in several content areas, such as during the welding portion of my agricultural mechanics course."

I want to note that I only created the worksheet that I used to guide the activity in my classroom. I did not create the activity itself; the credit for that goes to Dr. Ryan Anderson. Rather, I simply adapted the principles behind this process to my own classroom and created a worksheet template that was easy for my students to use and could be replicated in multiple content area types so as not to limit its utility to welding instruction. The activity that emerged was the Welding Project Oral Reasons Assignment. Within this activity, students A) got the opportunity to practice psychomotor skills during our welding activities, B) were required to make critical thinking-based decisions about their welds, and C) give an oral report about their decisions.

The process that guided this activity was simple and easy to replicate across multiple class sec-

tions. I used this activity during the April 2016 in three sections of my introductory-level class, Fundamentals of Agriscience, which were primary filled with ninth- and tenth grade students. We had been practicing welds for several days at this point, so trying a new activity with them would, I thought, break some of the monotony of simple practice. Utilizing the activity principles that I had observed as a graduate student, I developed a worksheet that was broken down into three primary parts: Notes, Placings, and Reasons. Each section contained instructions that described what students were to do at each step. Two days were set aside to complete the activity in full. On the first day, students were given instructions about the welds to be performed that day. Using small coupons, their task for the day was to run four horizontal position weld beads across their welding coupon. The welds had to be complete from end to end, and students were required to clean their welds when finished. Each student rotated into the four welding booths over the 50-minute span of the course meeting, allowing all of them to engage in the day's activity. After their welds were complete, students were told to quench their welding coupons in the nearby bucket of water, wipe them clean, and use a piece of soapstone to write their names on the backside of their coupons. Welding coupons were then placed in a designated spot and left overnight.



> "The most rewarding aspect of this approach was that students enjoyed it and wanted to do it again. Despite the fact that there existed critical thinking, decision-making, note-taking, and public speaking components to this activity, it was well-received."

The next day, students were given a copy of the Welding Project Oral Reasons Assignment worksheet and were told about the day's activities. They were instructed to go and get their welding coupons and, using a piece of soapstone, write a one, two, three, or four beside each weld to allow for quick identification. Afterward, I walked them through the process of evaluating their own welds. I want to note that students were not expected to compare their welds to anyone else's; the point of the activity was to help them to develop awareness of their own skill development and allow them to critique themselves without focusing on others' progress. The first part of the worksheet, the Notes section, required them to take detailed notes on each of their welds. Over the span of the next three minutes, they were instructed to write down everything about their welds, such as width, the presence of pin holes, and so forth. They were required to provide as many factual details as possible, as these notes were going to guide the next part of the worksheet, the Placings section.

In the Placings section, students were told to use the information from the Notes section to place each weld from first to last using the identification numbers that they had assigned to their welds. I explained to them the concept of how their welds should be placed and that they had two minutes to rank their welds from best to worst. After the Placings section was complete, we moved on to the Reasons section. I structured this section as closely as possible to the oral reasons portion of a livestock evaluation competition, using and explaining the concepts of pairs, grants, and faults. The intent was, once again, to be able to adapt this activity to other content areas and subsequent units of instruction, including animal evaluation. Students were to divide their placings into pairs and provide their logical flow of reasons for their overall placing. Five minutes were allocated to preparing their Reasons section. During this time, I walked around and examined different students' papers, helping them to adjust as necessary. At the conclusion of the five minute timeframe, I informed them that every person was going to come to my podium

at the front of the room and provide a set of oral reasons about their welds. To make the prospect of public speaking more palatable, they were permitted to bring their worksheets and welding coupons with them. I gave them two minutes to read back through their Reasons section, and then I called on the first student. After a couple of presentations, I no longer had to call on volunteers.

Several important implications emerged after conducting this activity. The first item worth noting was that implementing this activity was virtually free, with the exception of using a few welding consumables. Perhaps, however, the most important aspect was student engagement. There seemed to be a lot of interest in using this approach, as the students became more eager to share their progress with their peers as well as talk about their psychomotor skill shortcomings and methods with which to fix them. From the teacher standpoint, many of the students seemed to become less dependent on me to identify their struggles and how to improve them, allowing me more time to spend with students who were having a much more difficult time with grasping the basic concepts of the welding process. As I had a wide diversity of students, the time that I was able to spend with each one was critical in the teaching and learning process. The most rewarding aspect of this approach was that students enjoyed it and wanted to do it again. Despite the fact that there existed critical thinking, decision-making, note-taking, and public speaking components to this activity, it was well-received. Several students wanted to keep their welding coupons and use it as a way to show their progress. Many more students put their welds on their Snapchat stories or sent pictures of their work to family members.

In working with preservice teachers now, I have gotten the opportunity to demonstrate this activity several times, and the response has always been positive. Several preservice, and even inservice, teachers have asked about this activity and the worksheet that I used. Based on my experiences and anecdotes from others, it's good to know that agricultural mechanics education can always be about more than simply developing psychomotor skills, as it's the mental skills that help to keep pushing the envelope for both our students and ourselves as professionals.

"Based on my experiences and anecdotes from others, it's good to know that agricultural mechanics education can always be about more than simply developing psychomotor skills, as it's the mental skills that help to keep pushing the envelope for both our students and ourselves as professionals."

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ARTICLE

Irrigation Technology: Beginning of a Quality Program

by Steve Amador

Agriculture is the number one industry in the Central Valley and in California, making the management and use of irrigation water of upmost importance, and requiring a workforce trained in the latest technology.

The Irrigation Technology Program at Modesto Junior College (MJC) marked a milestone on April 28, 2017 as the first graduates participated in the Commencement Ceremony. Upon completion of the program's second year, it awarded five Associate of Science (A.S.) degrees and 14 certificates of achievement. This is not only a first for MJC, but for California as well, because MJC's program is the first A.S. degree in irrigation technology in the state.

As graduates crossed the stage, faculty began to look back to the program origins and ponder its continuing direction.

Providing the agriculture industry with skilled irrigation technicians was the goal from day one. New courses, certificates, A.S. degree, equipment acquisition, facilities development, student travel, and industry connections all have played a part in the program's development and achieving its goals.

Aside from graduates, the program's greatest achievement has been the placement of the students into the irrigation workforce. Of the 20 current irrigation majors, 16 are currently employed in this industry, either in a full time permanent position or in a paid summer internship.

Industry partners have played a pivotal role in placing the students, which has proven to be a win-win for all parties involved. Meras Engineering, Modesto Irrigation District (MID), Irrigation Matters, East Stanislaus Resource Conservation District, Pacific South West Irrigation, California Almond Board and Central Irrigation are a few of the partners that have hired both first-year students and graduates. The Irrigation Technology program is actively working to strengthen these partnerships and develop additional ones in order to provide students with hands-on experience in the irrigation industry.

"I strongly believe that the program prepares you to enter the workforce as an asset to whichever company you begin working for," said Ryan Lehikainen, an irrigation designer for Central Irrigation Company, who graduated from MJC in April with an A.S. degree in both Agriculture Business and Irrigation Technology.

Lehikainen stated, "The most valuable part of the Irrigation Technology program, I believe, is the ability you have to prepare for and take the Certified Agricultural Irrigation Specialist test that the Irrigation Association gives.."

A group of MJC students took the Irrigation Association's Certified Agriculture Irrigation Specialist (CAIS) test in April, and Lehikainen was one of five students receiving certification. Next year the program will prepare students for the Irrigation Association's Certified Irrigation Designer (CID) test as well as the CAIS test. The CID test is for those graduates wanting to enter the design aspect of the industry.

Training students for careers in the irrigation technology involves a combination of classroom work as well as outside activities and field trips. Recently two staff members and 12 students visited irrigation industry sights in Oregon and Washington, and Walla Walla Community College's Irrigation Technology Program which is the only other irrigation AS degree on the west coast.

The group spent five days touring Cornell Pumps, Nelson Irrigation, Valley Irrigation, several Columbia River dam projects and Broetje Orchards. All the tours and site visits were hosted by the staff at Walla Walla Community College.

"It was a great experience to see irrigation manufacturers and working systems that are not common in our area of Central California, and celebrating the end of a successful school year," said Steve Amador, MJC professor of agriculture.

Looking to the future, MJC's West Campus irrigation facilities will be 100% functional by the start of the 2017 fall semester. A reservoir has been dug and tied into the MID system, and the pumping stations are in the process of being installed.

"Watch for a facility open house prior to the beginning of the 2017-2018 school year," noted Amador. "The open house will provide an opportunity for MJC to demonstrate the new facilities and thank those who helped make it a reality. We'd like to say a sincere thank you to everyone who has supported the program's development by providing industry support and direction in order to make MJC Irrigation Technology a success."

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ARTICLE

Aligning FFA Proficiency Awards with SAE Purpose Means More Student Growth

by Rosalind Cowan

Through Supervised Agricultural Experiences (SAEs), students have the opportunity to explore the vastness of the Agriculture Industry, discover career options of interest, and develop skills to ensure they are prepared for their future career path. This is why the SAE is a vital component of the three-circle model. While the SAE structure and SAE Proficiency Awards are very useful and help set students up for success, there is always room for improvement.

To improve SAEs and Proficiencies, there needs to be a modification to the Proficiency Awards system that encourages students who wish to explore and try a variety of SAEs, not just students who develop one SAE while in high school. The structure of the Proficiency Awards currently discourages students from trying a variety of SAE categories. To encourage more students to try a variety of SAE categories, the National FFA should modify their awards system to have two levels of competition for each proficiency award area. The first level would be for students who have only had their SAE for one year, and the other level would be for students who have been developing their SAEs for two years or more. According to the National FFA Organization, "students must have kept one full calendar year's worth of records as an FFA member to apply for a national level proficiency award" (National FFA Foundation, 2016). However, students will be much more competitive at the state and national level with more years of records. While taking one SAE project and developing it over four years of high school is very beneficial and provides students the opportunity to gain advanced experience in that area of interest, it is not the only way in which to be successful through an SAE. If a student is unsure of their interests for a future career path, then only having one SAE is not going to broaden the student's horizon or perspective. Instead, these students should be encouraged to try a variety of SAE categories so they gain experience in many potential career paths.

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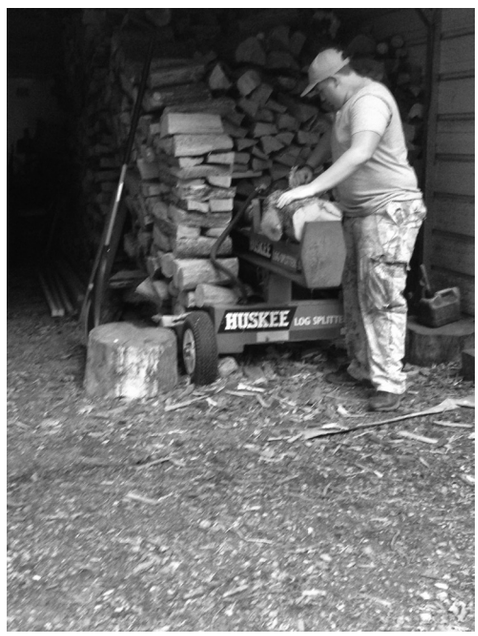
Another modification would be to broaden the scope of the SAE Proficiency Award areas. This would motivate more students to become more deeply involved with their SAE and gain more student growth. Currently, the proficiency award areas are quite specific and narrow, and it is impossible to have award areas for all possible SAEs given the large expanse of the agriculture industry. Providing students the chance to compete for awards based on their SAE is a great extrinsic motivating factor because competing students can potentially receive tangible recognition and monetary awards. Students who want



Isaac Jackson using a log splitter safely as he cuts and stacks firewood for the family home. This is a primary source of heating for his family.

Haley Miller works at a Trout farm. Here she is measuring and sorting trout in a pound.

to develop an SAE that is not currently represented by an SAE Proficiency Award area should also be given this chance to compete; they should not have to alter an SAE they are very passionate about just so they are eligible to apply for an SAE Proficiency Award. While SAEs are not defined by any FFA Awards, it is very frustrating for a student to be told they can have an SAE project and keep record of it, but not be able to apply for a Proficiency Award. According to Moore's evaluation of Prosser's 16 Theorems of SAE, students should be given applications at the start of their SAE project. This helps to serve as a motivator to correctly implement their SAE, resulting in an experience with more student growth (Moore, 2003). To fix this area of discouragement for some students, National FFA could include an SAE Proficiency titled "Non-traditional" in each of the four SAE categories. This would be for students whose SAE does not fit into any of the other SAE Proficiency award areas. By broadening the award areas, more students would be compelled to pursue SAE projects that they are interested in, thus better preparing students for future careers and further education.

An opportunity for self-directed, experiential learning that leads to student growth and preparation for future careers/education is what SAEs provide to students. Currently, the way SAE Proficiency Awards are structured discourages students who wish to have multiple SAE projects, as well as students who are interested in non-traditional aspects of the agriculture industry. However, by including two levels of competition per proficiency award area and creating a new proficiency award area for non-traditional SAE projects in each SAE category, more students will be able to experience the growth and career preparation that a successful SAE provides.

"By broadening the award areas, more students would be compelled to pursue SAE projects that they are interested in, thus better preparing students for future careers and further education."

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ARTICLE

Cultivating Growth of SAEs

by Kayla Hack and Evelyn Zaleski

Supervised Agricultural Experience, more commonly referred to as an SAE, is an experience where students have the opportunity to expand and enhance their knowledge in a specified area of agricultural, practice financial literacy, and gain hands-on learning. This integral piece of the three circle model allows students to apply skills taught inside the classroom, along with expand and develop additional skills outside of the classroom. In agricultural education we are taught about the importance and relevance of SAE as an integral part of the full agricultural education program, but sadly our theory doesn't always match our practice. Michael Retallick (2010) cited Wilson & Moore (2007) who identified barriers such as time, administration and community support and general resource and familiarity. To keep SAE relevant for the next generations, improving and adding variety to how it is implemented is essential, by stronger connections to classroom learning, intentional career ties and utilizing proficiencies as reflection and career readiness tools.

Integrating SAE as an extension to the classroom and integrating career portfolios and applications are two ways SAE can continue to prepare students to be career and college ready. Although SAE was started as a home based enterprise, the intracurricular nature to the model, along with a continued changing demographic challenges us to create innovate ways to engage students in individualized learning outside of class time (Retallick, 2010). Increasing school based enterprises or research projects that expand on specific classroom content is one way to increase student interest and participation, increase teacher capacity to evaluate and supervise and fully integrate the three circle model. With problem and project based learning being at the center of many career and technical education programs, a project could be implemented in class, to model what an SAE might look like outside of class, scaffolding students to create their own project and enterprise outside of school. As we strive to implement SAE as the integral part we believe it is, it is important to make the direct connection to career preparation that it provides. Increasing research and school based enterprises will also lead to increased confidence and skills to be applied in educational agriscience research settings that are required for advanced degrees.

Preparing college and career ready students for a variety of avenues after high school includes preparing them for advanced degrees, technical degrees or alternative certifications. SAE helps student explore all of these options by introducing them to the possible careers. This is an avenue for students to identify and narrow down career and college goals. Integrating SAE requirements such as shadow opportunities with professionals with minimum hour requirements in their field or work of choice in agriculture, creating career portfolios and creating SAE exploratory rotations in communities to give new and nontraditional students ideas and opportunities to implement SAE. SAE exploratory rotations could include various enterprises or businesses that require students to see what it may be like if they choose to pursue a career in that field of study and choose different occupations that continue to broaden their skills and horizons.

Utilizing proficiency awards and applications, or modified applications as assessment, evaluation and reflection tools in and outside of the classroom can be an extension or foundation of a career portfolio. Implementing this modified proficiency at the start of a class or high school career of a student allows goals to be set and then reflected on throughout, rooting us back to our ties in Kolb's experiential learning model. There are endless ideas and solutions to increasing the effectiveness of SAE, but adapting to student, industry and school and community needs are at the heart of it.

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Kayla Hack (left) and Evelyn Zaleski (right)
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Co-Author Division

Back Cover: Top-Advanced Irrigation students collecting pump data during a pump evaluation lab. Bottom-Students performing a system distribution uniformity evaluation for a local almond grower in Hughson California.