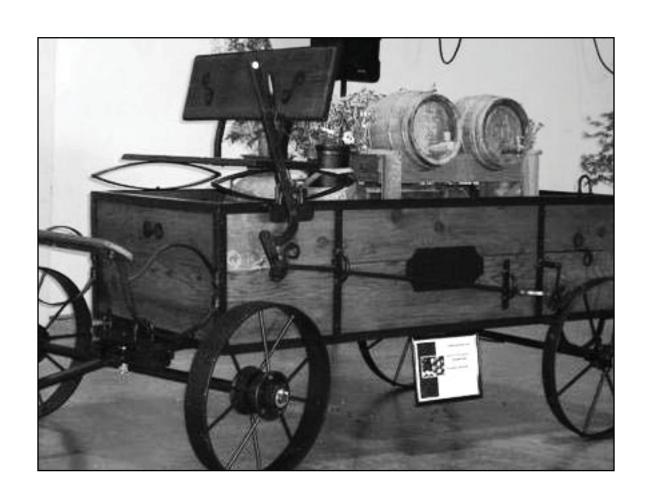
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The Agricultural EDUCATION



INNOVATIVE SUPERVISED AGRICULTURAL EXPERIENCE PROGRAMS FOR 21ST CENTURY STUDENTS

Looking Back to Move Forward: Supervised Experience Programs in the 21st Century

Supervised Agricultural Experience (SAE) programs¹ have been the cornerstone of agricultural education programs since the program's inception in the late 19th century. With SAEs as an integral part of the curriculum, agricultural education programs have provided a quality experiential learning experience for thousands of youth.

At the turn of the 20th century large numbers of students were dropping out of high school (Boone, Doerfert, & Elliot, 1987). To counteract the trend, the SAE concept was developed to provide students a curriculum that was practical and exciting. The modern day SAE can trace its heritage to 1908 and the Smith's Agricultural School at Northampton, Massachusetts (Stimson, 1942). Rufus Stimson developed the "homeproject" concept to keep his students' attentions focused on home problems and their solutions.

Supervised Agricultural Experience programs have evolved since the concept was developed by Stimson. The changes can be reflected in the names used for the concept including: supervised farming practice, farming practice, and supervised occupational experience programs (Boone, Doerfert, & Elliot, 1987). SAEs have also witnessed the transition from purely agriculture production enterprises to the inclusion of farm placement, agribusiness placement, career exploration and research concepts.

Agricultural education teachers must expand the use of the experiential learning component as a part of their program. In order to expand the use of experiential learning, teachers must explore alternative supervised agricultural experience programs. This includes but is not limited to exploratory, research, and improvement SAEs.

Just as the types of students who enroll in agricultural education have changed, the types of SAEs must also change. In the early years of agricultural education, most, if not all of the students would have a farm production background. Today it is the opposite. Many agricultural education students do not have a farm production background. It is the role of the teacher to find agriculture related opportunities that will get and maintain these students' attentions. This could require the teacher to expand and move beyond his/her comfort zone.

Regardless of the type of supervised agricultural experience programs your students select, there must be a record keeping component. Just as the acceptable types of experience programs have changed, the acceptable types of record keeping must also change. It is possible that one student's records will be a traditional spreadsheet (electronic or paper) while another student's records may look more like a thesis or dissertation. The bottom line is that the students will document and analyze their experiences.

The key word in Supervised Agricultural Experience program is "supervised." "Supervised practice that is most effective occurs in a functional educational experience" (Newcomb, McCracken, Warmbrod, & Whittington, 2004, p. 48). It is your duty as a teacher to insure that your students have a meaningful supervised educational experience. This issue of *The Agricultural Education Magazine* will offer you an opportunity to learn about some proven Supervised Agri-

cultural Experience concepts.

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¹ Modern terms of "agricultural education," "career and technical education," and "Supervised Agricultural Experience" programs were used throughout this article regardless of the era being discussed.



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Agricultural mechanics auction item. Photo courtesy of Patrick Casey and Benjamin Swan. (See complete article on page 12.)

Back Cover:

Additional agricultural mechanics auction items. Photos courtesy of Patrick Casey and Benjamin Swan.

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Supervised Agricultural Experience Programs in the 21st Century: Where are We Today?

by John C. Ewing

ince its inception, agricultural education (vocational agriculture) has promoted the concept of learning by doing. This concept is to be manifested in the classroom, through participation in the FFA, and by participation in Supervised Agricultural Experience (SAE). Although it has not always been identified as SAE, many of the underpinnings in this student- oriented practice have always been promoted.

Rufus Stimson believed that all students needed an opportunity to apply what they learned through what he termed the project method. These projects provided students with the opportunity to take personal ownership for their work. The project method also allowed all of the students to play a part in the work, rather than just a few. Rufus Stimson felt the students should be learning agricultural techniques at the school and then go home and apply what they had learned. Today, SAE still provides the opportunity to take what is learned in the classroom and apply this knowledge and skill beyond the classroom and laboratory. Also, knowledge and skills learned through the SAE project should then be used to influence that which is discussed in future classroom and laboratory sessions. This type of synergistic relationship can only be fully realized when teachers of agriculture are helping students implement SAE programs to their fullest.

Supervised Agricultural Experience programs provide excellent opportunities for experiential learning to take place. Researchers and phi-

losophers (Dewey, 1938; Kolb, 1984) have stated that experiential learning does include an actual experience. Many would readily agree with these assertions. However, Dewey, Kolb,

help us explore this question. Several articles share the challenges related to supervising SAEs, while others promote innovative SAEs for the future and give examples of successful

Supervised agricultural experience programs (SAEs) provide excellent opportunities for experiential learning to take place.

and others that have explored experiential learning, also believe that other components, namely reflection and future application, need to be present for students to benefit the most from the experience. Many individuals may also agree with these two components; however, the question is whether or not they are stressed as much in the learning experience as they should be. Reflection on an experience allows students to consider what went well, what did not go well, and how to improve and change for future applications. Without a connection to future application, students may not have the ability to transfer to those future contexts. Dewey believed that not all experiences impact student learning in a positive manner. He believed that students need to be able to reflect and apply that which they were experiencing for learning to be at its best.

The face of agricultural education and the demographic make-up of its students have changed over the years, but have we continued to keep SAE relevant to our students? The articles included in this issue should SAE strategies. Each of these articles should challenge those individuals that are involved in agricultural education to reflect on the current status of SAE. Finally, the articles encourage teachers to consider changes that will make SAE even more meaningful to each of their students. Enjoy!

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Globally-based SAEs - Encouraging Students to Experience International Agriculture

by Catherine W. Shoulders and Brian E. Myers

he barriers expressed by students during SAE development are beginning to follow a pattern. Traditional production-based SAE projects are not ideal for an increasing number of today's students, and the need for innovative, non-traditional projects is growing across the nation. Providing students with applicable, relevant experiences through which they can develop their agricultural knowledge is a critical component of an agricultural education program. Finding meaningful SAEs to address these barriers, as well as the changing practices of agriculture, can be daunting for even the most creative teacher. As agriculture becomes a more globally-intertwined industry, globally-focused SAEs offer opportunities for students to develop agricultural knowledge and experience in creative, easily-accessible ways.

The theme of the March/April 2010 issue of The Agricultural Education Magazine was "An International View of Agricultural Education." In that issue, Dr. Boone, Editor, posited that an agriculture program does not have to center around one geographical perspective, although many currently focus on local agriculture (Boone, 2010). However, the need for and trend toward agricultural interdependence between countries creates an opportunity and a calling for students to become familiar with agriculture from a global perspective (National Research Council, 2009). Countries collaborate to maintain crop biodiversity (Hicks, 2010), test crop varieties in differing climates (Brasher, 2010), increase food security (Fayle, 2010), and address global problems, such as climate change, water management, and hunger. The Consultative Group on International Agricultural Research (CGIAR) currently supports centers in over 100 countries whose focuses include forestry, livestock, food policy, crops, water management, fish, and tropical agriculture (CGIAR, 2010). Student connections to agriculture in other countries can begin with international agricultural organizations, such as CGIAR, The Food and Agriculture Organization of the United Nations, and the International Federation of Agricultural Producers. The presence of these organizations is an obvious sign that global agriculture is necessary and important; teachers are responsible for exposing students to the global trends in today's agricultural industries, and can do so through globally-focused SAEs.

Traditional SAEs reflecting student interests are often not feasible due to a variety of student and situational factors. However, exposure to real-life situations involving these interests is still crucial to a student's understanding of agricultural practices. Blending student interests in agricultural practices with this international perspective helps turn traditional SAE projects into innovative, user-friendly SAEs that appeal to many of today's students (see Figure 1).

Globally-based SAEs provide unique benefits to students, as well as to the entire agriculture department. By adding an international component to an SAE, the student gains an understanding and appreciation for factors that make up the world of agriculture existing beyond the scope of

his or her previous personal experiences. Cultures that affect food selection and agricultural practices in foreign countries are typically out of the realm of student experiences, creating in these students a narrow view of what is "right" regarding what to eat and how food should be produced. Students exposed to cultural diversity in an exploratory, real-life fashion gives opportunity for a greater appreciation of the many cultural differences that dictate global agriculture industries.

Many of the agricultural issues affecting communities are relevant problems in other parts of the world as well. Further, some of our nation's critical issues affecting policy, such as water management, the current unstable economy, animal welfare, alternative fuel sources, and environmental concerns, are shared with many nations due to their global nature. By examining these issues through a view larger than one's own community, students can gain a true appreciation for the magnitude of these problems, and begin to think about their solutions through the eyes and minds of policymakers. Lastly, technological proficiency is a critical skill required by employees in many agricultural industries. Globally-based SAEs can involve use of technologies to establish connections with other people and places, as well as to develop products, such as websites, handbooks, tours, and guides, as mentioned in the SAE examples provided. By providing opportunities for students to develop and produce globally-based SAEs, they can be more prepared for future agricultural careers by gaining experience in different agricultural practices, understanding the priorities and values in

Grow and market an agronomic crop	Discuss local production practices of an agronomic crop with farmers and extension agents based on procedures/ practices in different nations	
Work in a florist shop	Design flower arrangements based on cost with regard to season and supply imported from native countries	
Work in the produce department in a local grocery store	Create a food safety guide for consumers specifying production practices and international food safety policies on imported foods	
Conduct research to improve water and the environment	Develop a website for information and support for global water and environmental issues	
Help to remove an invasive plant species from local public areas (example – kudzu, Japanese honeysuckle, Johnsongrass)		
Write a series of newspaper articles about the environment	Start a regularly occurring article series highlighting the importance of agriculture in different countries	
Manage an invasive species of animal on local land (example – fireants, Africanized honeybees, wild boars)	Research the migration of an invasive animal and create a guide for affected communities highlighting how it is beneficial and/or managed in native and other countries	

Figure 1: Blending student interests to create innovative user-friendly SAEs

other cultures, and becoming fluent in the language and processes of technology.

The forms and shapes globally-based SAEs take are limited only by the innovation of the teacher and students. In a quick brainstorming session, the following SAEs projects were developed, but include only a fraction of the potential projects globally-based SAEs can become.

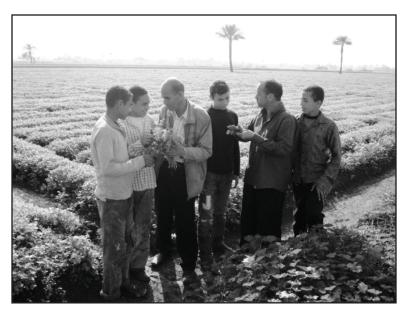
Classroom connections. What better way to expose students to international agriculture than pair them up for online communication with agriculture students with similar interests in other parts of the world? Currently, South Korea, Egypt, and the Kingdom of Swaziland in Southern Africa have established agricultural education programs in high schools. An even greater communication resource can be found through the many agricultural colleges and universities

present in most countries on almost every continent. Online organizations, such as ePals and International Pen Friends, are designed specifically for establishing connections between classrooms in different countries.

International agriculture webpage. The benefits of one globally-based SAE can be shared electronically through an international agriculture page on your school's FFA or department website. Schools are places of collaboration, and agriculture. technology, language, and social studies teachers can find common ground in guiding students through the process of building and maintaining a webpage that requires knowledge of agriculture, technology, and different countries and cultures.

Local or school television clips. Localized high school television stations and school-wide television programs seek out innovative content to include in their lineups. Students with an interest in agricultural communications can improve their technological and communication skills while creating mini-programs highlighting the agricultural industries of foreign countries. Not only do television clips increase the number of students impacted by this globalized SAE, but they also provide an avenue of positive public relations for your agriculture department and FFA chapter!

Service learning for your FFA chapter. The National FFA Organization promotes annual service activities for FFA students through their "Living to Serve" initiative, and teachers can model and promote service activities by encouraging students to design an SAE around finding, organizing, and following-through on philanthropic activities that benefit agriculture in other countries. Action Against Hunger, Adopt-



Creating connections with agriculture students from other countries, like these Egyptian agricultural students, can increase communication between students regarding production practices in different places.

a-Rainforest, and Heifer International are just a few of the organizations that provide international service opportunities for school organizations without leaving the country.

Study abroad. One of the most well-known methods of school-based globalism is through study abroad opportunities. While we acknowledge that many barriers exist when considering taking a group of high school students to another country, the benefits of exposing students to foreign agriculture make it worth the effort. A student particularly interested in the idea can create an SAE program around the selection, development, funding, organization, and followthrough of a study abroad experience for an FFA chapter. Again, the barriers of a high school study abroad experience may find many of teachers shaking their heads at the idea, but it can, and has been done before. In the March 2010 issue of The Agricultural Education Magazine, Eric Richer and Ricardo Shirota write about their experiences taking 29 high school FFA students to Brazil for a tour of Brazil-

ian agriculture. As expected, the experiences students took from the trip allowed them have to "minds open the world around them and [be] infused with contagious **FFA** ergy ready to compete in a global agricultural marketplace"

(Richer & Shirota, 2010). A globally-based SAE designed around the development of the trip can enhance the experience for students even further.

Host an agricultural student **exchange.** An alternative approach to a study abroad SAE may be designing a student exchange for the FFA chapter. Students can include their families in the global experience by hosting students from other countries, and can design a program of activities for the exchange period through their SAEs. Teachers guiding students in the development of this type of SAE have plenty of support from the National FFA Organization, and can learn from the experiences of chapters already conducting student exchanges. The National FFA has an agreement with World Link, a placement organization for the Future Leaders Exchange, which supervises school placements for students from Eurasian countries (Gaukel, 2004).

Virtual field trips. Students interested in communications or educa-

tion can create virtual field trips with or without a study abroad experience. An SAE project can involve designing and sharing virtual field trips related to agricultural industries in different countries, and can display them on the chapter FFA webpage, through communications and presentations with local elementary schools, or share them with students from the highlighted countries through the web. Some schools have already begun to experience the benefits of creating and sharing virtual field trips through mapwing.com, a free, intuitive virtual field trip development website.

Global production SAEs. Some students involved in traditional production SAEs may benefit from incorporating a global component into their projects. Students interested in crops can conduct research on international crops in their local climates. The Foreign Agricultural Service, through the USDA, provides climate information for countries, and similarities to local climate can be utilized to predict the success of crops growing in one or both areas. The same types of research can be conducted through breeding operations with regard to foreign breeds of animals.

The opportunities for globallybased SAEs, like the benefits, are numerous. SAEs with a global focus help students appreciate and value diversity, understand current agricultural issues in a global context, and become fluent in different forms of technology. By providing students with opportunities to experience these benefits through globally-based SAEs, teachers are also eliminating some of the barriers to traditional SAEs that are becoming increasingly common among today's non-production oriented agriculture students. With a little creativity, and some international networking, teachers can

guide students through the development of globally-based SAEs, and further increasing student preparedness for today's global agricultural industry.

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2010 Themes

September/October

rills for All Assignitural Education Using 21st Continue

Leadership Skills for All Agricultural Education Students

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A Minds-on Approach to Experiential Learning in Agricultural Education

by Michael S. Retallick

ften as agricultural education teachers, people ask us to define agricultural education. Most of us respond by explaining that it is a career and technical education program that provides students handson experience related to agriculture through classroom and laboratory instruction, FFA, and Supervised Agricultural Experience (SAE) programs. Some of us might even throw out the term experiential learning. But when pushed a little further and asked to describe what is meant by hands-on, often our only response is that's what meets the needs of our students. The issue with this superficial response is that it can equate with the notion of busy work as much as it does to minds-on learning activities.

Agriculture is a great context and also provides content for learning. Hands-on activities are great way to engage students; however, it isn't the "hands-on" nature of the activities that makes it learning. One can think of several menial agricultural tasks that are hands-on, but wouldn't correlate to learning. Is mowing lawns, in and of itself, educational? How about pitching manure all day or driving fence posts? How about transplanting plants in a large commercial greenhouse? All of these activities are engaging, use multiple senses, and require the person to be active. There might even be some initial learning that takes place, but how many days will it take before a student learns how to effectively and efficiently manually detassel a corn plant? If we're going to call these hands-on activities, shouldn't something else have to occur?

These activities could easily be part of agricultural education students' individual SAE program. SAE programs face a similar issue where the extent to which students learn from the experience might come into question. Agriculture teachers often talk conceptually about the value and importance of SAE. But in its current state. SAE isn't much more than a contextual record keeping opportunity for students. And that is assuming the teacher values SAE enough to incorporate it into his or her local program. In most cases, it isn't until students begin to complete applications for proficiency awards or state or American FFA Degrees that they are required to discuss how they got started with the SAE and its progress. This is also the point where students are asked to articulate what they learned and to list skills that were developed as a result of the SAE. It seems to be a little late in the SAE program to implement the learning components, especially since SAE is part of a formal agricultural education opportunity. We have a terrific context of agriculture from which to teach and we espouse that we are all about experiential learning, yet we really aren't practicing any of the lifelong learning skills associated with the experiential learning process.

Before expounding on the experiential learning process, let's explore what researchers have learned in the past couple of decades about how people learn. The National Research Council (2000) provides three key research findings related to learning that influence teaching and learning. First, students have a preconception of the world upon entering the classroom. To actively engage students, teachers need to tap into these preconcep-

tions and help students connect their understanding with new concepts and information. Without a connection to existing knowledge, students might not retain the new information beyond an immediate purpose.

Second, in order for students to be competent in an area they must have a deep and factual understanding of the topic, understand the facts and ideas of the topic within a framework, and have that information organized in a way that supports future retrieval and application. Third, a metacognitive approach where students are empowered to learn how to take control of their learning is vital. Such an approach enables students to define learning goals and monitor progress in achieving those goals.

These three findings have implications for us as agricultural educators both in the classroom and in our SAE programs. As suggested by the National Research Council (2000), we, as teachers, should draw out and work with students' pre-existing understanding, provide a framework for understanding new ideas and conceptions, utilize many examples and provide factual information within that framework, and integrate metacognitive (thinking about their thinking) skills whenever possible. These findings are not only embedded aspects of experiential learning, but also many of the things we purport to do within agricultural education.

Many theorists and researchers have provided slightly varying philosophies and offered several experiential learning models. Most experiential learning models are cyclical or spiral in nature to signify the ongoing, lifelong process of learning and

experience. The converging themes among the experiential learning models are experience, reflection on the experience, interpretation of the experience, and transfer of newly created knowledge to future experiences. More of this knowledge base could be easily incorporated into SAE programming or curriculum development.

As an agricultural education profession, we must purposefully incorporate cognition into our curriculum and SAE programming. Our students, as learners, must process experiences through reflection and critical thinking resulting in changed behaviors, attitudes, or the creation of new or revised knowledge. Students benefit from agriculture education and SAE programs when a context is provided and students have some sort of existing knowledge from which to process the most recent experience. They take hands-on experience and process it, which results in new or revised knowledge. For some students and in some instances, the processing of the experience happens without even consciously thinking about it. Other times and in formal education settings, we can help students purposefully think about the experience and process their thoughts. By doing so, we can transform students' ways of thinking and habits of mind in a manner that cultivates lifelong learning - where students can manage their learning rather than looking to someone to feed them the information. In formal educational programs, like agricultural education, we can purposefully model the experiential learning process, enabling students to utilize it on their own after their formal education has ended.

Many youth programs have formally incorporated the experiential learning formula into their programming. An example is 4-H's approach

of "do, reflect, apply". All the elements of experiential learning are present in a manner that is manageable for young people. 4-H members are thinking critically and developing an awareness of what they are learning as a result of their projects while expanding their existing knowledge base.

It is time for us as an agricultural education profession to incorporate experiential learning into our curriculum and SAE programs. Given what we know about learning-based research, the agricultural education profession is well positioned to take classroom teaching and SAE programs to the next level. An example of an experiential learning approach for agricultural education might be preflection, experience, reflection, and transfer (PERT). As agricultural teachers, we have the context, agriculture, and now we have a process for incorporating experiential learning, PERT.

The following is a brief description of each component of PERT. Learners can enter this approach at any point. Such might be the case for non-formal and informal learners; however, in a formal setting like school-based agricultural education, there are many situations where it would be appropriate to facilitate preflection before the experience occurs.

Preflection - Although not always required for experiential learning to occur, the opportunity for preflection in formal education, especially with SAE programs, is appropriate. Preflection could include planning, goal setting, or simply thinking about the impending experience.

Experience – Experience is the activity or program in which the student is actively engaged. In agricultural education, it could be the SAE program, field trips, class projects, or

laboratory experiences.

Reflection – Reflection is the opportunity for critical reflection and the point where meaning is made from the experience. The newly created meaning can be linked to previous knowledge or used to revise previous knowledge to create the current existing knowledge.

Transfer – The experience is of little value if students are unable to transfer what was learned to future experiences and situations. Transfer of learning takes place when the skills, knowledge, and attitudes learned from one experience are used in another experience.

The primary purpose of PERT and experiential learning is twofold. In the short-term, it enables students to make meaning from their experiences. Long-term, it empowers students by developing them into lifelong learners who can manage their own learning. The goal is to develop students who are able to take what is learned and transfer it to new situations and problems without a great deal of relearning. Ideally, students develop metacognitive skills that enable them to identify and address their own learning needs through self-transformation, where students have a conscious understanding of their knowledge, their need to learn, and own preconceptions. Simply put, if one was to look at experiential learning conceptually, one could say it is 'experience + reflection = learning,' where "+" is the process of making meaning and the transference of learning.

In an era of accountability in education, agriculture teachers can no longer tell parents and administrators that students are receiving hands-on experiences. Teachers and students must be able to articulate what is learned from these experiences,

whether those experiences are classroom activities or SAE programs. No
longer can it be assumed that handson equates to learning. In the future
when asked to define agricultural education, perhaps it can be explained
as a program that utilizes experiential
learning as a context and process for
learning where agriculture serves as
the context and PERT (preflection,
experience, reflection, and transfer)
serves as the process. Then, at the
very least, we talk about "minds-on"
SAE programs and classroom activities rather than hands-on.

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WANTED!!

Theme Ideas

for the

2011 Agricultural Education Magazine

Do you have a topic/theme that you would like to see in the 2011 *Agricultural Education Magazine*? If so, please send your ideas to the editor at:

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Best Practices for Today and the Future: Motivating Students through an Agricultural Mechanics Project Auction

by Patrick L. Casey and Benjamin G. Swan

n 1996, the Templeton High Agriculture Depart-School ment (Templeton, CA) began a project auction to promote Supervised Agricultural Experiences (SAE) that were focused on metal and/or wood construction projects. Even though there has been recent turnover in the departmental faculty, the project auction has become a mainstay. Other programs in California have adopted the project auction or elements of it to promote student projects in the agriculture mechanics area. The Templeton Project Auction has received some attention recently in the FFA New Horizons (December 2009, p. 4). The goal of this article is to describe how this project auction was conceived, how it functions/ operates, and the benefits to the students, the program, the community, and the industry.

Agriculture mechanics has been described as the utilization of materials and processes to increase efficiency in all areas of production agriculture. The content within agriculture mechanics is closely connected with many industries outside of agriculture, essentially preparing agricultural mechanics students for career entry into a broad spectrum of industries. For example, welding and metal fabrication are popular emphasis areas within agriculture programs. These skills readily transfer into a variety of construction and fabrication industries allowing students to have several options when choosing a career pathway.

The welding industry expected a shortfall of 200,000 skilled welders in 2010 (Uttrachi, 2007). Although this shortfall has not yet been validated, the demand for trained welders is very strong, even with current economic challenges. Agriculture mechanics courses that emphasize welding within their curriculum have an opportunity to prepare their graduates for the welding industry, whether within the agriculture industry or beyond. Providing our students with an outlet for their projects allows them to take advantage of the SAE component of the curriculum and stay connected to the FFA. This in turn provides motivation to the students to enter our agriculture mechanics courses and connects them to industry. As a result, we can better supply industry with more graduates.

Total Program Participation

Students enrolled in Agricultural Construction and Fabrication courses

are eligible to build a project for the auction. Other courses prepare flower arrangements for the dinner/auction which are used as door prizes for the attendees. Students volunteer set-up,

serve, and clean-up. As a result, student volunteers can benefit from the proceeds of the evening through scholarships used to support all SAE endeavors in the chapter. Scholarship money is generated through the Ag Booster's silent raffle and dinner ticket sales.

Teachers, students, parents, and program supporters help with advertising, event set up, clean up to ensure the entire evening runs smoothly. They also gather items for the Ag Booster's silent raffle. Silent raffle tickets are purchased at the door and deposited into collection cans next to each raffle item. Dinner tickets for the evening event are sold as another source of revenue for the Ag Boosters. Students can take advantage of financial support through an application process that includes: completed record books, descriptions of the SAE, and an explanation of the student's efforts to market their SAE project(s). The "Project Auction" has



Student project prepared for the agricultural mechanics auction.



Student project prepared for the agricultural mechanics auction.

become a major social event in the community.

Project Choice and Completion

Students become motivated when they can choose their own projects and use their creative talents to design and build their creations. This has led to students taking full ownership of their SAE. The auction is held in the spring of the year which allows the students to develop skills throughout the year that they will use to build their projects. Here we see a direct connection from classroom instruction and application of skills to the SAE Each student that chooses to participate in the "Project Auction" is given an outline of the rules and guidelines for developing a project. Included in the student packet are timelines for the construction of their projects and examples of projects that have been done in the past. Each student must complete a business agreement, budget, bill of materials, and timeline for their projects. All appropriate information is entered into the student's record book. Quality and uniqueness are emphasized to help the students understand the importance of fabricating a saleable project.

Students are given time build to their projects as part of their regular class, spend but additional time during "open shop" which held two or three times each week and on selected Saturdays. This ensures the students

will have adequate time to complete their projects and allows the students to accumulate hours away from class time for their SAE that can be accounted for in their record books.

Project Quality and Evaluation

The project auction has historically been on the last Saturday in April. On the Friday prior to the auction, to judge the quality of projects, all of the projects are displayed throughout the agricultural mechanics facility. Members from industry, the school, and the community are selected to judge and determine if each project has earned either a gold, blue, or white ribbon. Only projects that are of the highest quality, earning a gold or blue ribbon, are permitted to be displayed and sold at the "Project Auction". Projects are entered and categorized into three divisions: metal projects, wood projects, and combination projects. The judges determine placings, which in turn determines the auction sales order. Projects in each division with the highest scores receive champion and reserve rosettes.

There is always tremendous excitement and anticipation during the

judging. Students take great pride in winning the awards and besting their friends as their efforts are viewed by a large crowd of peers and community members. The students really enjoy this added element of competition, providing an opportunity for the students in the agriculture mechanics program to take center-stage for the day.

Students in the agriculture mechanics area are often left out of the limelight and historically don't receive awards and recognition at school. This auction program has given these quiet workers the chance to really shine. It is amazing to see the difference in these students after they receive public acknowledgement for their accomplishments. One young student said prior to the auction that he was worried that no one would bid on his project. After the auction he was on cloud nine! To have several people bid on his project was an experience he had never expected. These kinds of experiences let students understand that they are valuable and what they do also has value.

The "Project Auction"

A local auctioneer donates time to the event annually. Projects are auctioned off using a rotation between the three divisions. The champion and reserve champion projects from each of the three divisions are sold during a special time in the auction. The auction mirrors the style of a county fair livestock auction. The student brings their project to the front platform with the auctioneer, but large projects that cannot be easily moved are sold in place. Bidding begins at the break even costs for materials only. All hours and money associated with the project are accounted for in the students' record books. The average number of projects sold through the auction is 50 and the total dollars generated from those projects



Student project prepared for the agricultural mechanics auction.

totals around \$26,000. On average, 300 people attend the annual project auction. Students are assessed an auction fee of 10 percent on the sale price for their project but can reduce the assessment by selling dinner tickets to the auction. Each ticket sold reduces the sales fee by 1 percent. There is a two-fold benefit for the students to sell the tickets. First, they can reduce their sales fee to zero percent and secondly, they can fill the seats with friends and acquaintances that will bid on their project. The system is very well received and the students like to get out and promote their projects. This provides the students with the motivation to market their SAE Many students will sell more than the ten tickets needed to reduce the sales fee because they understand the importance of having potential buyers in the audience.

Impact of the Auction

Since the projects are judged within the agricultural mechanics laboratories, the facilities are immaculately cleaned and set up to impress the judges and the spectators that attend. The timing is perfect because the 8th graders tour facilities and the program while the projects are on dis-

play which allows them to see the opportunities the program provides. The impact the "Project Auction" has helped to increase enrollment in the agriculture mechanics classes and provides the incoming students

with a chance to see the shop in action and make informed choices for class selection.

The agriculture booster group generates thousands of dollars from the sale of dinner tickets, raffle items. and donations. These funds are earmarked to support student SAE projects and provide scholarships for graduating agriculture students. The financial support for individual student SAE in all areas has encouraged the FFA members to engage in productive SAEs with some protection from the risk of losing money. If the student loses money on a well-run project, they can apply for support and receive funds to make up for their loss and often the students are awarded additional funds so that they are able to show a profit on their project.

Additionally, the auction strengthens support from the community, administration (both high school and district), and the industry for the local agriculture program. This event has developed as a mainstay into the community's culture through positive interactions between administrators, school board members, agriculture

instructors, FFA members, their parents, and the community. We encourage you to consider implementing something similar into your program to showcase what you and your students do!

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A View from the Other Side: High School Principals' Perceptions of Supervised Agricultural Experiences

by John Rayfield and Elizabeth Wilson

lhe origin of Supervised Experience Agricultural (SAE) has been well documented by historians and scholars in agricultural education. This rich history is ingrained in the tradition of the agricultural education community and is a source of pride for those who acknowledge SAE to be the first formal experiential learning model of instruction in Career and Technical Education (CTE). During the last forty years, many studies have identified SAE as the shrinking component of the agricultural education program.

Many researchers in agricultural education have questioned who is at fault for the decline of student participation in SAE. Dyer and Osborne (1995) conducted a synthesis of all research related to SAEs in which they identified the success of the SAE component to be dependent upon the teacher. They also concluded from many studies that teachers value the foundation of SAE but are not transferring this value into action by requiring students to participate in SAEs. More recently, Wilson and Moore (2006) found this to still be true. Other researchers believe that school principals can affect whether teachers choose to implement SAE. Dyer and Osborne (1996) concluded that opinions of administrators make a difference in the maintenance of agricultural education program quality. Wilson and Moore (2006) found that teachers believe that principals do not reward them for having their students conduct SAEs.

The rationale for this research was simple. In North Carolina, teachers self report their participation in SAE each year. In 2004-2005, only 37% of these teachers and in 2005-2006, only 43% of these teachers reported all students in their programs had an SAE program. Ninety-three principals responded to our survey and provided the following data: Seventy-six

valuable. Principals agree that SAE is important, realistic, and provides character education. They also believe that teachers should visit and supervise students conducting SAE and teachers should possess 12 month contracts to do so. Principals believe that the level of teacher involvement with SAE and the quality of these experiences is above average. Only

High school principals perceive SAEs to be important for students in their schools. They also believe agriculture programs are of better than average quality.

percent of the principals taught at the high school level before being a principal, only 10% had taught a career and technical education course at that level. While 16.5% of the principals who participated in the survey took an agricultural education course in high school, only 13.4% reported having either placement or entrepreneurship SAE project. Seventy-five percent of those surveyed indicated that the students at their school come from rural areas. Eighty percent of those surveyed reported that the agricultural education teacher(s) at their school are employed on 12 month contracts.

The principals in this study believe that SAE is important and

65% of the principals surveyed reported that the agriculture teacher(s) at their school have students conducting work-based agricultural education experiences. However only 5.2% think those work-based agricultural education experiences are available to all of their agricultural education students. Nearly 20% of these principals state that their agricultural education teacher(s) provides work-based learning opportunities for 25% or less of their students. Only five percent of the principals surveyed believe that the agricultural education teacher(s) at their school provides work-based learning opportunities for 100% of their students.

Even though principals believe in the importance and quality of SAE they do not believe teachers are visiting or grading the majority of student projects. Only 40% of the principals surveyed believe the agricultural education teachers at their school visit and supervise work-based learning experiences for a majority of their students. Fifty percent of those principals who reported having programs with work-based learning agricultural education programs said that their agricultural education teachers give students grades for their projects.

The majority of principals do not recognize their teachers for conducting SAE programs. Twenty-nine percent of the principals reported that they recognize their agricultural education teacher's involvement in SAE through face-to-face support. Only 10% recognize their teachers' SAE efforts in their annual teaching review and surprisingly only 5% recognize these efforts during the agricultural education program evaluation.

So what does this mean for our profession? Principals currently perceive SAE to be important for students in their schools. However, principals do not believe agricultural educators provide SAE opportunities to all students but they believe the programs that are being conducted are of better than average quality. These findings are consistent with other current reports and studies that have found the majority of teachers do not have their students conducting SAEs.

The principals also believe that their agricultural education teachers should be active in supervising and visiting students with SAE programs but they do not believe their teachers are currently doing a good job of this. They agree that teachers should possess 12 month contracts but the majority do not believe that their teachers are visiting students

during the summer months. Most agricultural education teachers justify their extended year contracts through SAE. Is it possible that supervised agriculture experience supervision is neglected by teachers year round and not just in the summer months?

Very few principals in this study took an agricultural education course in high school and even fewer conducted an SAE in high school. It is encouraging that without prior exposure to agricultural education courses, these principals consider SAE programs to be important. Another promising conclusion is that principals who serve in urban settings have an appreciation of SAE.

This study also supports previous research that found that teachers perceive principals to reward FFA activities more than SAE. School principals do not formally recognize their teachers for conducting SAE. Principals need to express their value of SAE to their teachers and emphasize its' importance in annual teacher evaluations and end of year program evaluations. We must continue to examine positive actions that can be taken to get teachers and administrators to act on the positive value of SAE.

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Supervised Agricultural Experience – Is SAE a Priority in Your Program?

by Duane Huge and B. Allen Talbert

upervised Agricultural Experience (SAE) is only important to your students if it is important to you the teacher! How you represent SAE in the classroom; reward students for their participation in SAE; and involve parents, administrators, and the community with SAE indicates your commitment to an active, relevant SAE component of the total agricultural education model. Do you remember the national model for agricultural education? It is the three overlapping circles that represent the classroom, FFA and SAE components of a local agriculture program. Before you read any further, complete the following exercise. Draw the three part model as it relates to your own agriculture program. Do all three circles exist? Do they all overlap or do some stand alone with no relationship to the others? Are they all the same size or does one component overwhelm the other two? If you are missing a circle, have one that exists off to the side by itself, or is smaller than the other two; it is probably the SAE component.

The following 20 questions can help you determine your commitment to SAE and consequently how important SAE is to your students. Honestly answer "yes" or "no" to each question, total the "yes" responses, and evaluate how to change the "no" responses.

The first set of questions will tell you whether you are putting into action the belief that SAE should be included in agricultural education. Do you think SAE is currently an important part of your total agricultural education program? Do all of your FFA

members have an SAE? Do you encourage your agricultural education students who are not FFA members to conduct an SAE? Are you introducing the concepts of SAE sometime during the year through your classroom and if so, when? If your school allows, do students receive additional credit for the outside-of-class learning through SAE? Have you used the

introduced to your introductory students in the fall or winter depending on when students in your community would typically begin an SAE program. All other agricultural education courses should include SAE lessons that build upon the basic concepts in the introductory course and expand students' skills and opportunities.

Does SAE, as a teaching tool, EXCITE YOU?

SAE unit lessons that are available? Talbert, Vaughn, Croom, and Lee (2007) described SAE as the outside-of-classroom application, experiential, career preparation component of the agricultural education model. Phipps, Osborne, Dyer, and Ball (2008) emphasized that SAE should be a program that spans the entire time a student is in agricultural education, rather than just a project that is completed within one year.

To show your students the importance of SAE, you need to teach its concepts; display pictures, awards, and posters about it; and give students examples of innovative programs they could do. Keep something displayed in your classroom at all times that relates to SAE. Proficiency award plagues or banners from previous winners, pictures of current students working in their SAE or posters on the walls and bulletin boards remind students on a daily basis that SAE is a part of their agricultural program. To help you, there are teaching resources available through your state or other curriculum centers to teach SAE to your students. SAE should be

The next set of questions is designed to make you think about the supervision aspect of SAE. For beginning teachers, have you completed an SAE visit since you started teaching? Are you visiting each student at their work placement or home at least twice a year? Are you comfortable in knowing how to conduct SAE visits and know that your SAE visits are worthwhile? Does your current length of contract allow you to supervise students in the summer? Are you satisfied with the materials your students use to keep SAE records? For students to receive optimal learning from an SAE, they must receive supervision from the agriculture teacher (Phipps et al., 2008; Talbert et al., 2007). For supervision to be successful each visit must be planned and have a purpose. This time spent one on one with the student outside of the distractions of the normal classroom can be very enlightening. Use some of the time in the visit to discuss career planning, college choices, and the SAE's readiness to advance them to Chapter, State or American FFA degree opportunities. Visits can focus on more than just the record



Available space should not limit a student's opportunities to conduct an innovative SAE.

book and their completed skills. Yet, let's not forget that one of the most important aspects of SAE is student record-keeping. Without advocating a particular system, it cannot be overemphasized how critical it is that students maintain up-to-date, accurate SAE records.

These next questions ask you to reflect on how involved the school administration and community is in SAE. Have you ever invited your principal or superintendent to join you on a supervisory visit? Do you expect that some part of your professional evaluation from your principal will be directly related to your ability in providing SAE opportunities? Can you prove to an administrator that you are ACCOUNTABLE for the time and expense that you devote to following-up students in SAE? Do you or could you make school facilities (land laboratories, greenhouses, agricultural mechanics laboratory) available for students after school or in the summer for SAE opportunities? If SAE is truly a part of your total agricultural education program, then your administrator needs to understand its value to the students. There is no better way to gain administrative support than to have them observe SAE in action. It might be a little unnerving to ask your administrator to evaluate your SAE teaching or even take them along on a day of visits in the summer. but this action documents the integral nature of SAE to the instructional program.

You also need to evaluate motivational tools for students to get excited about SAE. Did your FFA chapter have at least three proficiency applications submitted for District/Area/Regional/

State competition? Have you ever promoted SAE programs in your community through the use of any type of media? Have you ever visited or utilized the SAE page on the National FFA web-site? Are you using any of the SAE resources found in the Local Program Resource Guide? The National FFA Organization's website http://www.ffa.org has educator resources for teaching, evaluating, and promoting SAE. SAE Central at http://www.cals.ncsu.edu/agexed/ sae/toolbox/, maintained by North Carolina State University, includes SAE lesson plans and examples of SAE programs. The two textbooks cited in this paper also have SAE examples, forms, and ways to interest students in SAE (Phipps et al., 2008; Talbert et al., 2007).

The final question gets to the heart of SAE instruction. Does SAE, as a teaching tool, EXCITE YOU? Many students have a passion for livestock, soils or leadership CDE's

because their advisor does. How can you expect students to get excited about developing an SAE if they don't see the excitement or interest in YOU? For SAE to be relevant to 21st century learners, YOU as the teacher must embrace it and make it a priority in your program!

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Revitalize Your Agricultural Education, Horticulture, or Supervised Agricultural Experience Programs by Using Concrete Pavers to Teach Patio Designs

by Shawn W. Abma and Connie D. Baggett

strong and exciting secondary agricultural education, horticulture, or SAE program is a necessity in all schools. Consequently, the agriculture teacher must possess a variety of knowledge, skills, and expertise. The agriculture teacher also needs appropriate curriculum and instructional aides to support the secondary program. Depending upon your program, agriculture teachers are responsible for many disciplines including animal science, horticulture and plant mechanics. biotechnolscience. ogy, and environmental science. One more discipline to add is that of landscape design. Although landscape design technically falls under the scope of horticulture, many schools offer a class solely in landscaping.

Why Concrete Pavers?

The concept of tightly fitted paving units on a granular base is very old. The first segmental roads were built in 5000 BC by the Minoans on the island of Crete. With free labor and a military dominance, the Romans built the first interstate system with segmental pavement over 2,000 years ago. Since then, practically every culture continues to use segmental pavements.

Using concrete pavers for hardscaping is one of the fastest growing trends in the landscape industry. People are spending more time outside through indoor and outdoor space transitions and they want their outdoor space to look aesthetically pleasing. Concrete pavers offer the customers many choices the areas of color, shape and design. This high demand has created another opportunity for landscapers to pursue.



Gettysburg Area High School students screening sand before placing pavers.

T h e term hard-scape is used almost

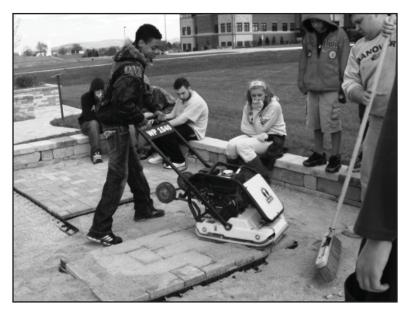
exclusively by the landscape industry and it may never appear in standard dictionaries. Even among landscapers, the term only recently entered the industry jargon. Simply stated, hardscape is everything that is part of the landscape composition other than plant materials. Much of it functions to enclose or surface portions of the landscape, but there are other important functions as well. One point is indisputable: when hardscape is part of the composition, a landscape will never be perceived as being totally natural. Whether the landscape is then seen as being marred by human intervention or improved by it depends upon the artistry of the designer and the craftsmanship of the installer.

Hardscaping - Working in the 21st Century

Landscaping is one of the fastest

growing sectors in agriculture, with hardscaping emerging as one of the brightest spots in landscaping. Again, hardscaping involves all the features of the landscape that are not living. Some examples would include decks, trellises, fences, boulders, water features, patios and walls. In the past, patios, walks, and walls were designed using poured concrete and cement blocks, but that is changing. Patios are increasingly being designed using concrete pavers. Concrete pavers are blocks that come in many shapes and colors and are very durable and pleasing to the eye. The trend today is to connect your indoor rooms with outdoor spaces through hardscaping and concrete pavers are a great way to do this. With this increasing demand for a skill comes an increasing demand to teach these methods correctly to our students.

There are many texts to use as



Gettysburg Area High School students compacting pavers.

resources and several lessons online. But, there is a need for a thorough curriculum on constructing patios using concrete pavers. This has led me to design a curriculum using concrete pavers to construct patios that will be available through the Department of Agricultural and Extension Education at Penn State University.

A New Instructional Unit for Secondary Agriculture Teachers

The purpose of this instructional unit is to provide teachers with a tool to help teach landscaping to secondary students in a landscape design class. Each lesson creates an environment that enables students to participate in an active learning environment. Various group activities, discussions, power point presentations with digital images, and handson activities help students grasp the concept of designing and constructing hardscapes using concrete pavers. The design of the content and application used in this curriculum provides students with a competitive edge in the landscaping industry. Students may also develop their SAE project with this knowledge and information.

This teaching unit includes t w e l v e 1 e s s o n s that lead students through many pects concrete pavers. Lessons 1-3 look at hardscape functions, history and advantages. Lessons 4

and 5 investigate design and tools needed for constructing a patio. Lessons 6 and 7 involve site evaluation and materials estimation, and lessons 8-12 are concerned with excavation, construction process of the patio, and maintenance. Each lesson includes the following elements: teacher information sheets, lesson plan, teacher activities, student worksheets, student activity, worksheets, quizzes, and answer keys. There is also a power point for each lesson that includes digital images of paver components and concepts. Pennsylvania Standards are included with cross curriculum references in history and mathematics (You will have to adjust these standards for other states). Objectives are clearly outlined for both teacher and student expectations.

Students have many opportunities to learn by doing. Lessons involving site analysis get the students outside by teaching them how to find slope using string lines and line levels. Lesson eight involves base preparation, where students excavate and add base according to predetermined measurements. The student activities allow students to build a patio in the

shop or outside the school building if you have the opportunity. The lessons also provide group activities for the students to work together as a team and create something of value.

The opportunities in landscaping are endless and it's important for teachers to expose youth to these skills and educational opportunities. Being an agriculture teacher requires having the resources to help acquire these skills and this instructional unit should be of great help to you. Students and teachers may use this instructional unit to develop supervised agricultural experience projects at home, in the community, on the farmstead, in suburbia, or on-the-job. The unit fosters the entrepreneurial spirit and highly skilled program graduates may have an opportunity to develop their own business.



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What Are the Hidden Rules to SAE?

by Tracy Kitchel and Charles Cordell Jenkins, III

Borrowing an Idea from Poverty Literature to Explain SAEs

n Ruby Payne's (2003) book A Framework for Understanding Poverty, the concept of "hidden rules" among social classes is introduced. The concept is simple, yet has far-reaching implications. Those from lower socioeconomic classes struggle in school and society partially because they do not understand the "rules" of how to act or interact in a middle class society. These hidden rules are common knowledge amongst the middle and upper socio-economic classes; hence their opportunities for success increase compared to those who do not know the rules. Let's transfer that concept to SAEs. Are there hidden rules out there that define success for SAEs that some know but others do not? If so, what are those rules, who created them and why do we continue to follow them? We will take a look at this question of how SAEs are defined, through a recent research study, which sought to define quality indicators for SAE. Next, we'll discuss what some of these hidden rules are and end with some conversations the profession should have if we want SAEs to be a prominent component in our secondary classroom model.

The Research Study

Over the past several years, the 10 x 15 initiative has really made us scratch our heads – not only about how to build toward 10,000 quality programs, but what "quality" actually means. In an effort to figure that out, we decided to look at the question of quality to see how experts in the field of agricultural education defined quality in instruction, FFA and

SAE (Jenkins & Kitchel, 2009). In the article from which we're citing, the study focused on FFA and SAE. Findings were interesting as the panel of experts could agree on 19 quality indicators of FFA, but only 6 quality understand how others thought about that particular item. The question was then simplified to a yes or no answer – should this item be considered a quality indicator? Again, those items with 100% agreement (in this case,

SAEs should be supervised, agricultural, and experiential in nature and focus on student learning.

indicators of SAE. The panel has a little over 40 indicators in which to review, for both FFA and SAE.

The research process aimed to define quality indicators of FFA and SAE using the Delphi method, which seeks to develop consensus or full agreement among a group of experts. In the first round, we asked experts (agriculture teachers, state staff and teacher educators, all of whom had national prominence) to list quality indicators of FFA and SAE. In round two, the responses from round one were compiled and experts were asked to state their level of agreement for each item being accepted as a quality indicator. All responding panelists had to agree at some level (a "4" meaning "agree" or "5" meaning "strongly agree", on a 5-point scale) that the item should be a quality indicator. Items with less that 75% agreement (less than 75% of the experts marked a 4 or 5) were discarded. Items with 100% agreement were considered quality indicators. The remaining items were taken to round three. In this round, participants were informed of the mean score, in terms of agreement (again, on a 5-point scale). This helped the participants

all panelists marking "yes") were added to the list of quality indicators.

From that process, the following items made consensus amongst the panelists, and were identified as quality indicators of SAE:

- SAEs are assisted (e.g. in the planning process) by instructors, parents, employers and other partners
- Student is satisfied with SAE
- Teacher has supervision time for SAE
- Student has up-to-date records on SAE
- SAEs involve goal-setting
- A diversity/variety of SAE types is promoted

Again, the panel could agree on 19 quality indicators of FFA, but only 6 quality indicators of SAE. Only 6 of the 46 (13.04%) proposed items introduced by panelists made consensus and were considered SAE quality indicators. The question is – so what? There are many questions on why the profession seems clearer on qual-

ity indicators of FFA, yet disjointed when it comes to indicators of SAE. Why does it seem that, on the surface, we are all over the place when it comes to defining SAE? Are we all not on the same page?

What Are the Hidden Rules?

Perhaps our ability to not agree is merely a sign that we have rules about SAEs in which we either don't know and/or cannot agree. Over the vears, we've heard renditions of what SAE is or has to be. Here is a list (not scientifically developed) of some of those renditions, or hidden rules, and some discussion to consider about those rules. Our job at this point is not to support or dispel the rules, but to provide several perspectives. We hope this stirs discussion within the profession to surface these rules for the purpose of putting everyone on the same page.

 SAEs must be completed outside of school hours

If you subscribe to the threecircle model or Venn diagram of Agricultural Education, the figure outlines a portion of that SAE circle on its own and outside of the instruction and FFA circles. The question you need to ask is, what does that mean philosophically? Does that isolated section mean that part of what is done in a SAE is physically away from instruction and FFA? Or does that isolated part of the circle mean, perhaps, that the isolated part is to imply that SAEs should be about individualized, experiential learning event? If that's the case, the boundaries of the school hours should not be a factor. However, this could be taken overboard, mostly for the sake of gaining more hours to win awards, which is problematic.

• SAEs scope leads to a greater reward (or award)

This falls in line with bigger is better. Let's look at two examples. Let's say a student has a large production agriculture SAE that is a part of the family farm. Another student, who has no connection to production agriculture (or agriculture, in general), starts with one pig and grows to an operation of five sows; who will win the proficiency award? Likely, the first example would win on scope alone. Who learned more? Now there's a tougher question. We don't want to say that the second example is necessarily the answer; however, there are cases where that could be the situation. Sometimes bigger is better – and sometimes it is not.

 SAEs must fit an FFA proficiency award area

Certainly, it is easier to help students find an SAE when there is a structure in place. It also helps that this structure has a reward component. But, doesn't this seem backward? Why let an award program dictate the learning process? Let the learning process shape how we reward. Perhaps we should consider an "Innovative Proficiency Award" to reward students who operate outside the boundaries of the proficiency award areas.

SAEs must make money to be successful

What's the old saying? ...sometimes the best things in life are free! Let's take the concept of internships used widely in colleges and universities. Sometimes, internships are unpaid experiences, but the learning isn't cheapened by a lack of a paycheck. Agricul-

ture teachers should know this best by their unpaid experiences being a student teacher or teaching intern. Perhaps that approach could be useful in reframing SAEs... Supervised Agricultural Internships?

SAEs must be individually-driven

There's part of this that can be agreed upon - SAEs should focus on individualized learning. However, students could have the same SAE or be in partnerships. Traditionally, SAEs have always used language such as partnerships, but that traditionally focused on either adult partners or employers. If fellow students were used as partners, it was typically a family member or sibling. There are probably many examples of students who have partnered together on SAEs, but the reward system discourages such students to partner because it splits the scope of the project. And no matter the size, having 50% of a project just doesn't sound as impressive as sole proprietorship. In this case, we end up focusing on a reward of scope, not of learning. Perhaps our proficiency award structure could reward collaborative SAEs.

Redefining the Rules around Student Learning

Many of these hidden rules seem to center on what a SAE cannot be or provide restrictions to SAE. Perhaps the KISS (Keep It Simply Simple) approach works best. Perhaps, if we look at some rudimentary tenants for SAEs - something that's supervised, agricultural, and experiential in nature that focuses on individual student learning – we would find the answer. If you look at the six quality indicators that our experts identified,

most if not all center on that basic concept. When the focus is on these simple tenants, we can instead ask what CAN SAEs be, instead of stating what SAEs CAN'T be! Perhaps, before we pass out record books (which are still important), we should pass out SAE learning contracts and start from there. Then, SAE projects can come from what is to be learned instead of figuring out what can be learned from the most convenient project. Ultimately, when everyone starts on that same page, then perhaps the hidden rules are not so hidden (or relevant) and we can focus on

the learning that should occur from SAEs.

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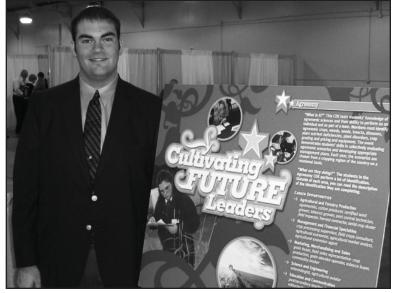
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Gettysburg Area High School students installing edging materials to hold pavers in place. Read the complete article starting on page 19.

Teachers who are excited about SAEs are more likely to have students who are excited about SAEs. Read the complete article starting on page 17.



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