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The Agricultural EDUCATION MAGAZINE

Program Model Designs— What are you doing to meet your community's needs?

Making the News!

By Billye Foster

What are you doing to meet your community's needs?

I think that is a fair question. After all, Agricultural Education has spent almost one hundred years working to meet the needs of students. Students, being part of the community, the community being part of the state and the state being part of the country would lead one to think that all these things are tied together. However, how we address the needs of students and communities in flush times can be quite different than the approach taken when we must tighten our belts.

As difficult times face our country, I think it is important to remember there are rarely any clouds so dark they don't have a silver lining! In this case, Agricultural Education is positioned to shine in communities across the country. As the public comes to grips with economic hardship and new ways of looking at the world, the need for solid leadership and practical problem-solving skills will become apparent. These skills have been our bread and butter for nearly a century. The teachers who take time to devote their talents and those of their students to the betterment of the community at large will reap the benefits of increased support and backing for today and future endeavors.


The Daily E

Friday, March 20, 2009

Schools Connect to Commun

As incredible as it may seem, local high school programs are actually preparing students for futures in our community. Not only that but those same programs are currently reaching out to the community in an effort to help with current issues in the face of harsh economic cuts by the local and state governments.

What are these super programs? Who are the students enrolled in them? The programs are Agricultural Education! That's right--but the way you remember agricultural education and the FFA is probably NOT the image reflected today. Today's agricultural education teachers and students are building leadership skills and learning more about the needs of their home communities.

"Their willingness to help with the upkeep of local parks has allowed us to keep them open to the public," said local Parks Director, Tom Smith. "These kids are giving of their own time and labor to help keep this community a thing we can all be proud of!"

Who better understands the need for strong community connections than a successful agricultural education teacher! On a regular basis you interact with members of industry, government and the citizenry of your communities. Always looking for ways to enhance and support your programs, you become veritable fountains of information and understanding regarding the heartbeat of the community you live in and work for.

I would challenge each of you, as practicing agricultural educators, to continue your supervised agricultural experience visits to both homes and businesses. Your genuine interest in the success of your students is also a geniune interest in the well-being of the community and people who live and work there.

This country and the agricultural industry have given all of us in agricultural and extension education many opportunties to grow and succeed. The time has come for us to increase our efforts to give back by sharing what we have learned to benefit our students and communities.

Enjoy the articles in this issue. I think they will serve to both inspire and encourage you to higher levels of achievement.

Make the next headline read "***Your FFA Chapter at Work***--Sharing the skills they have learned in agricultural education classes!

Billye Foster is a Professor at The University of Arizona and is Editor of ***The Agricultural Education Magazine.***

Cover photgraph courtesy of New Mexico State University

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The Urgency of Need

By Barry Croom

In February of this year, the Washington Post reported that almost 600,000 Americans lost their jobs in January. Citing a report from the United States Bureau of Labor Statistics, the paper reported that job losses were both large and widespread in all industry sectors (Irwin and Shin, 2009). According to the report released by the United States Department of Labor's Bureau of Labor Statistics (2009), the hold on jobs continues to be precarious for a significant portion of the United States workforce. Each day the national newspapers herald the arrival of more bad news about our national economy. The one thing that seems certain in the present economic climate is that many Americans who started the year with a job will end the year without one.

In this time of uncertainty, career and technical education cannot sit on the sidelines and watch American jobs go down the drain. Agricultural education cannot afford to stand idle while the productivity and innovation in the farms, fields and communities of America die of neglect. We have a difficult job to do, and it goes far beyond training teams for career development events and teaching students in classrooms and labs. We have a responsibility to the citizens in our school communities to help them in this economic crisis. We have to step up our community development activities to provide positive, real and enduring solutions to real community problems.

Some of the old timers reading this issue will remember the old Building Our American Communities Program (BOAC) provided through the National FFA Organization. We built picnic tables and park benches, and landscaped the front of public buildings and the "Welcome to …" signs at the edge of countless towns. Some FFA chapters took the BOAC program seriously by developing farmers' markets, completing downtown revitalization projects, and engaging in economic development.

Gone are the days in agricultural education when effective community service is measured by the number of picnic tables we build in our shops. It's time to create sustainable community development by listening to the needs of the citizens and bringing our innovative talents to work through agricultural education.

At a time in our early American history when the industrial revolution was in full swing, agricultural education provided strong leadership by training workers and citizens for their role in the new economy. We are now in another phase of our national experience where a new economy will replace the old and old ideas and methods are rightfully being cast aside. The new problems in our communities demand new solutions. We must attend to the urgency of need in our communities before it is too late.

Thankfully, agricultural education still retains its commitment to innovation and hard work. Let's put to work the better angels of our nature--to serve the communities that we depend upon, and that depend upon us.

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THEME ARTICLE

The Big Picture

By Clark Adams & Jason Chester

The first few years of teaching agriculture are the "survival" years. Many brand new teachers focus on the short-term goals of lesson planning, getting into the rhythm of the school routine and learning the procedures. In those first few years, it is easy for the new teacher to lose sight of the big picture. In the heat and dust of those first years of teaching, it's far too easy for teachers to forget the overall goal for the agricultural education program. As new teachers in a rural school system in the Piedmont of North Carolina, it did not take us very long to recognize the big picture for our agricultural education program because our community provided us with the direction and support needed to get the program into its proper orbit. The big picture is student success in their chosen field of endeavor. Student success is the goal of the community, the direction in which our school administration drives the instructional program, and it is the star by which we steer the agricultural education program.

West Rowan High School is located in the community of Mt. Ulla, just 30 miles north of the largest city in North Carolina, yet it still retains much of its rural nature. The chief occupation of most Mt. Ulla residents is agriculture or agribusiness. When we arrived at the school as new agricultural education teachers five years ago, we saw an opportunity to establish a first rate agricultural education program. But how would we accomplish this without the resources enjoyed by neighboring metropolitan school districts? Could the rural students at West Rowan have the same opportunities of students in more affluent school districts? Moreover, the agricultural education program had reached a steady state many years ago, and participation in FFA and supervised agricultural experiences had leveled off or diminished since then. With the full support of the Mt. Ulla community and school administration, the West Rowan agricultural education program entered a new phase of growth. Nonetheless, in order to develop a world class agricultural education program, it would be necessary to draw upon a proven formula – experiential learning. Each class uses a combination of lecture, group assignments, research, hands-on projects, and assessments to deliver content to the students. The focus of each class centers on the use of hands-on projects to teach and reinforce classroom concepts. Horticulture students plan, plant, and harvest many different crops from the greenhouse and nursery area. This prepares students for careers and hobbies involving horticulture. In the animal science classes, students spend time every day caring for the livestock on campus. By the end of each semester students can successfully provide all basic care for the animals. The agriculture mechanics classes

Photo courtesy of West Rowan High School

spend time each semester planning and producing large and small projects that benefit the school and the community. Each student also has the opportunity to plan and complete a project that will be useful to them as well. Our focus on the application of the concepts learned in class shows relevance to the students and provides motivation for them to continue their agriculture education.

Once the citizens of Mt. Ulla observed that we meant business about developing a world class agricultural education program, their support of the program went through the roof. The program grew in the number of students served, and we began to expand the teaching facility to accommodate these students using the renewed methods of experiential learning.

Through the support and leadership of the community, the program now utilizes a land lab that contains livestock facilities, two greenhouses, an outdoor classroom, and a nature trail. The livestock facilities utilize three acres of pasture and an open air barn to house sheep, goats, and cattle that are raised each year for the local county fair. The horticulture facility includes two heated greenhouses, a one-half acre nursery area, and a head house for production of a wide variety of flowers, vegetables, and landscape plants. The recently constructed outdoor classroom and nature trail are utilized for instruction and study of local wildlife and ecosystems.

The land lab is a key element of the West Rowan Agriculture Education program and an essential part of our success not just in the instructional program, but in the FFA and SAE components of the program. In four years the FFA chapter has gone from being virtually extinct to 195 active members who participate in numerous career development events, proficiency awards, degree programs, and leadership development. West Rowan FFA is the largest student organization on campus. SAE participation went from 0% to 100% in four years, and students are routinely recognized for the quality of the projects that they complete.

SAE

...the FFA Chapter is a means of connecting to the community.

The beginning teacher often makes the mistake of delaying the establishment of an SAE program until they have the other two components, FFA and instruction, fully operational. That is a serious mistake. Supervised agriculture experience is a critical component of any agriculture education program and it is a focus of our program. To provide for quality SAE programs, the first year agriscience students tour local agribusinesses and older students' SAE programs. The diversity of agriculture in our community gives our students numerous opportunities to participate in SAE programs. West Rowan students participate in internships with local farm businesses and veterinarians who connect their classroom instruction with real world application. The projects completed by our students are routinely recognized in the proficiency award program. In four years, over 30 students have been recognized as state winners in a proficiency award area. The benefits of experiential learning are clear; students gain the opportunity to implement skills learned in the classroom and prepare for a future career. The SAE program allows students to gain invaluable experience as they move from high school to college and the working world. West Rowan will always focus on SAE because it allows our students to gain from the skills they learn in their classroom and FFA experiences. More importantly, it builds a direct and vital link by helping prepare young people for occupations in the community.

The FFA Chapter

It goes without saying that a strong FFA program can meet community needs if the program has community development. The FFA at West Rowan has grown from being an obscure student organization to the largest and most active organization in our school. This is because the FFA chapter is a means of connecting to the community. It is our goal to participate in numerous community service activities. These activities range from a "Trick-or-Treat for Cans" food drive to helping the local elementary school kick-start their accelerated reader program. We provide horticultural supplies to two elementary schools to teach plant growth and care and have helped guide third graders

by delivering a hands-on planting field day. To further develop the qualities of citizenship we have partnered with the Rowan County Relay For Life Association to provide assistance and awards at their numerous cancer survivor and research celebration activities. The development of a community-based FFA chapter has helped us produce students who upon graduation are prepared to be self-motivated, productive and reliable citizens.

Partnerships

Three years ago, West Rowan started an alumni association that is now the largest in North Carolina at over 200 annual and life members, and we have an advisory committee of nine local business persons to act as a guiding force when developing programs and curricula. As a method of providing career focused courses and to improve ourselves as life-long learners, we have joined several different community and school organizations. We are members of our county's Biotechnology Curriculum Research Team, our school's High Schools That Work technical assistance team, and the school improvement team. We invite community members to speak at our monthly FFA meetings, and have developed a parent/supporter volunteer list to identify how they can help our program. We extensively use the county extension service to offer laboratory workshops for our animal science and horticulture courses, and to train various career development event teams. We have served as the speakers at local civic clubs to promote our program and to discuss the opportunities for youth in agriculture. In order to develop professional opportunities and provide up-to-date practices we have partnered with a local nursery and multiple local livestock operations to provide real world experiences. We feel that these experiences help students develop practical skills and make educated decisions when choosing a career. Along with these partnerships, we

OOPS!...we made a mistake

In the January/February issue, on page 18, the last sentence of the Gratz article, Content Standards, was cut off.

The complete paragraph can be found below. Please accept our apology and regret regarding any inconvenience.

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Content Standards
by Steve Gratz

...

Standards-Based Education is an academic program in which clearly defined academic content, performance, and operating standards are aligned. A standards-based education spells out what educators, schools, and communities need to do to ensure achievement of expectations.

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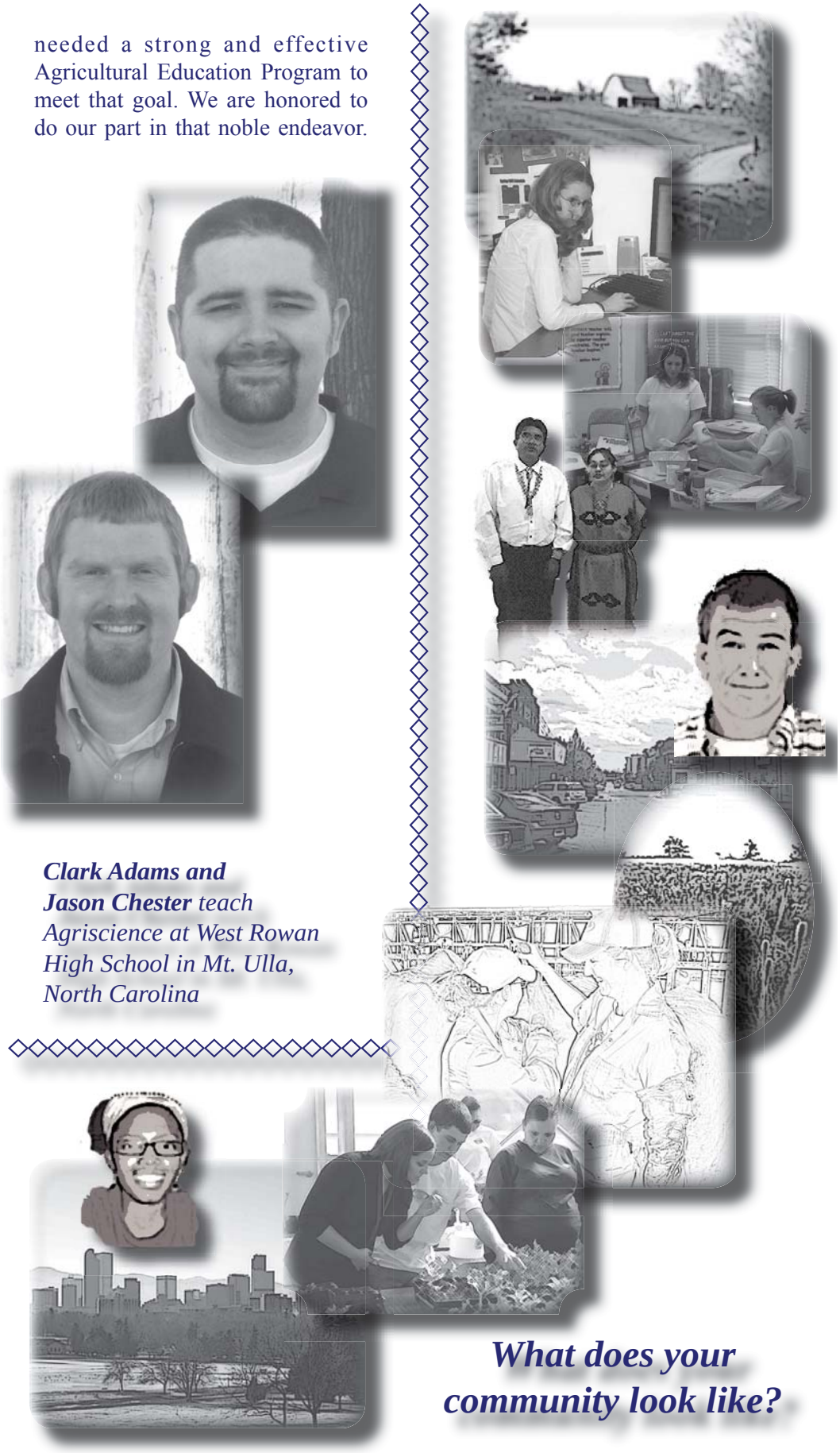
The Future--What will you do to bring the best and brightest to our profession?

**This issues includes Author & Subject indices

have established a relationship with the local lumberyard and metal fabrication shop to help us build a livestock laboratory. We have partnered with the Boys Scouts of America to establish a half-mile long nature trail and wetlands laboratory with a teaching deck. This partnership provides a functional teaching tool for environmental sciences and an outlet for multiple Eagle Scout Projects. We have joined forces with the local research station, the local EMS service, Carolina Farm Credit, and Tractor Supply Company to help at their respective customer appreciation and training days. Finally, we have hosted a kick-off dinner for the re-election of Steve Troxler, NC Commissioner of Agriculture, and have hosted a dinner for the Capital Campaign for the NC FFA Center that raised $30,000 for construction of a new dining hall.

We have both been instrumental in the development of a school wide mentoring program, and Mr. Adams develops the school's weekly lesson plans for the 25-minute daily mentoring time. This mentoring time is based around the life-knowledge principles and on improving reading and writing skills for all students at our school, while at the same time maintaining a personal relationship with each student. Also, through our participation on our school's High Schools That Work team we have been able to help the school grow based on the principles of rigor, relevance and relationships. Overall, the success of the West Rowan Agricultural Education Program is due to its commitment by the citizens of Mt. Ulla to support the program and all of its activities. We are grateful that we had the luck and foresight to see the community's interest in the program. The big picture at West Rowan High School is student success, and the community needed a strong and effective Agricultural Education Program to meet that goal. We are honored to do our part in that noble endeavor.



Clark Adams and Jason Chester *teach Agriscience at West Rowan High School in Mt. Ulla, North Carolina*

What does your community look like?

THEME ARTICLE

Agricultural Service Learning as an SAE: A Model for Community Development

By David Jones & John Rayfield

As agricultural education teachers, we try to wear so many different hats that at times community development gets put on the back burner. We find ourselves bogged down with daily routines and often neglect the communities we serve and reside in. Many teachers share their frustrations of how they are supposed to perform well in the classroom, carry on FFA activities and encourage all students to have a supervised agricultural experience (SAE). Agricultural education teachers always ask, "How do you get every student to have an SAE?" One strategy is for their students to become actively engaged in service learning projects.

Service learning is not your typical SAE. Any student can become involved in the project and basically all they need to invest is their time and effort. Service learning is commonly used throughout our educational system. It is an effective way to gain leadership skills and apply knowledge. Service learning allows our students to experience leadership opportunities through community-based, social networking and hands-on experiences. Through service learning, students are instilled with a sense of civic duty and feel like they are a part of a greater good because of their involvement in their community. No matter how you incorporate service learning into your curriculum, there are three general concepts that need to be a part of the project. The first is a vision. The vision concept gets participants to share a common vision for what "can be." The second concept is the idea of collaboration. Collaboration is the working together of different individuals or groups to complete or achieve a common goal. Finally, service learning projects need a concept or goal to make "change." Service learning allows people to create or develop a change within their community.

For a successful service learning project a vision is a must. Vision is developed through a structured process. A vision should include:

1. A statement which expresses goals and objectives of the project.
2. The role of the each person or group of persons involved.
3. A specific time frame to complete the project and parts of the project.
4. An end product. A specific vision as to what the end result will look like.

Collaboration is important for a successful service learning project. The more collaboration the more prosperous the service learning project will be. Chrislip and Larson (1994) developed 10 keys to successful collaboration:

1. Good timing and clear need.
2. Strong stakeholder groups.
3. Board-based involvement.
4. Credibility and openness of process.
5. Commitment on an individual level.
6. Support or acquiescence of established authorities or powers.
7. Overcoming mistrust and skepticism.
8. Strong leadership in the process.
9. Interim success.
10. A shift to broader concerns.

Seeing a need for something and then wanting to make a difference is crucial for a successful service learning project. Shifting one's thinking and thinking of new or innovative ways to accomplish something will allow a service learning project to make a huge impact.

As a service learning project is formulated, we will see interesting shifts in attitudes and beliefs. We begin by looking at ourselves and becoming conscious of our beliefs and our attitudes regarding the world around us. We begin to look at our lives and how we want to live our lives and what type of people we want to be. Through this process we begin to explore the "what can be" of our society. We begin to think about what collaborations we can explore to create a different community and world. For service learning to be effective, we work with others toward a common purpose.

Service learning has been developed through the concept of experiential learning. Like most experiential learning activities, service learning directly and specifically engages the learner or student. The biggest difference between experiential learning and service learning is that in service learning a primary goal is to make a difference in a community or society. That is, service learning emphasizes impacting one's surroundings. There are several ways to start a service learning project. One of the easiest and most successful ways is to talk with a community leader to determine the needs of the community. During this

conversation, questions should focus on the vision of the leader. The needs of the community should be of primary consequence. As ideas start to formulate, it would be a good idea to think about what kind of service you would like to offer. Think of organizations that might have a similar interest. Effective methods to finding collaborators can be through the telephone book or Internet.

When developing a service learning project, think about the following:

1. What activities do you enjoy?
2. What skills do you have to offer?
3. What kinds of organizations are available to you?
4. What area of the community would you like to serve?
5. How long do you have to complete your project?

When picking an organization to work with, think of the following:

1. What are the goals and objectives of the organization?
2. What role would you play with this organization?
3. What would you do for or with the organization?
4. What would you be expected to do for the organization?

As you begin your service learning project, things to keep in mind are the vision or the goal. We have all had lessons on setting goals. Set SMART goals--Specific, Measurable, Attainable, Realistic and Time oriented. By writing these goals down and sharing them with the participants of the service learning project, it will help to ensure that everyone knows what and why they are a part of the project. As the project runs, continued collaboration helps to ensure the project's success. Making certain that all groups and individuals involved are upholding their part of the project will foster teamwork and a positive experience for all involved. Making sure that commitments are being fulfilled makes everyone feel good about being involved in the project.

Reflection is crucial to make the service learning project really impact the lives of the people involved. Reflection is the opportunity to learn from an experience. Reflection can be done in many different ways. It can be done through journaling, discussions, presentations, or merely setting aside some time to do some thinking about it.

Dewey (1933) suggested that reflection is an important component of education and experiential learning. He described reflection as an intellectual process. Lewin (1947) supported reflection that happens through peer group discussion. Piaget (1968) discovered that individuals modify their beliefs based on their experiences. Therefore, Piaget would affirm that in order to change one's concepts or beliefs, one must look at their life experiences and reflect on how they make a change in their life

The service learning experience is invaluable for the education of individuals within our communities. Each person brings talents and skills to a group in which we can all learn from. Groups will share and exchange thoughts, beliefs and values with each other which will allow all members of the group to develop and grow intellectually. Service learning is the integration of meaningful community service with instruction and reflection to enrich the learning experience as well as to teach civic responsibility, while at the same time strengthening the bond between individuals and their community. A good service learning project not only helps out the community, it offers the students an opportunity to share their knowledge, gain further knowledge, link academic content with standards and learning goals in a real world setting, while at the same time encouraging civic responsibility. As we look to develop new models for delivering agricultural education in our communities, why not consider service learning as a viable supervised agricultural experience? Agricultural education teachers are responsible for the supervision and guidance of the project, while students carry out the project and provide a valuable community development service in the process. This project can be suited to rural or urban settings and can involve agriculture at varying levels. The experiential nature of service learning projects makes them a perfect fit into the arsenal of agricultural experiences we can offer to our students and fill a void of community development and involvement that many of our local programs are missing today.

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Piaget, J. (1968).

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THEME ARTICLE

If Not Now, Venn?

How can Agricultural Education's interpretation of the Venn diagram be used to improve community involvement and community development?

by Steve Gratz & Gary Moore

For as long as I can remember, Agricultural Education has been using a three-circle drawing to show the relationship between the classroom, Supervised Agricultural Experience (SAE) and the FFA. More than likely, as a secondary student I could have explained, albeit superficially, my perception of the relationships. And I know I didn't possess the knowledge to explain the model with maximum verbosity nor was I aware that it was called a Venn diagram, named after the English mathematician John Venn.

Venn diagrams are used in a division of mathematics known as "set theory." According to the Oxford American Dictionaries, a Venn diagram is a mathematical diagram representing sets as circles, with their relationships to each other expressed through their overlapping positions, so that all possible relationships between the sets are shown. Set theory is the branch of mathematics that deals with the properties and relationships of sets. In mathematics, a set can be any collection of different things considered as a whole. It is considered to be one of the most important and fundamental concepts in mathematics today. Therefore, set theory can be regarded as the foundation upon which virtually all mathematics can be constructed and the basis from which nearly all mathematics can be derived. In Ohio's content standards for mathematics, sets are first introduced at the K-2 grade level, so the concept of sets and their relationships would not be considered an advanced academic concept.

There are numerous variations of Venn diagrams, e.g., Euler diagrams, Johnston diagrams, Veitch diagrams, Peirce diagrams and Edward's Venn diagram. The intent of this article is not to make mathematical awareness of the myriad of diagrams that have derived from John Venn's work, but rather it is to provide a brief historical perspective on the origin, purpose and utility of Venn's diagram in Agricultural Education and to lay the foundation for its continued use.

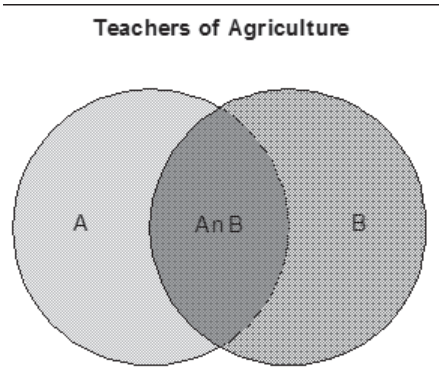

Figure 1: a 2-circle Venn diagram illustrating the relationship of two sets

John Venn's diagram simply illustrates relationships between sets. For example, Figure 1 illustrates a 2-circle Venn diagram. For illustrative purposes we'll use a 2-circle diagram to lightheartedly describe teachers of agriculture.

The light gray circle (set *A*) represents, for example, all teachers of agriculture who are male. The darker gray circle, (set *B*) represents all teachers of agriculture who are baldheaded. The area where the circles overlap (which is called the *intersection*) contains all teachers of agriculture who are both are male and baldheaded. (Imagine each teacher as a point somewhere in the diagram.) All male teachers of agriculture with hair would be in the light gray circle, in the part that does not overlap with the dark gray circle. All female teachers of agriculture who are baldheaded would be in the part of the dark gray circle that does not overlap with the light grey one. Therefore, points outside both circles would represent female teachers who have hair. The combined area of sets *A* and *B* is called the *union* of sets *A* and *B*. The union is defined as A∩B, that is A intersected with B. The intersection of the two sets is a container, because where the two circles overlap resides all of the teachers of agriculture who are male and are baldheaded. To complete the diagram in Figure 1, a rectangle called the "Universal Set" has been drawn around the 2-circle Venn diagram to show the area in which all teachers of agriculture reside, including males,

females, baldheaded and with hair.

A= all teachers of agriculture who are male
B= all teachers of agriculture who are baldheaded
A∩B= all teachers of agriculture who are both male and who are baldheaded

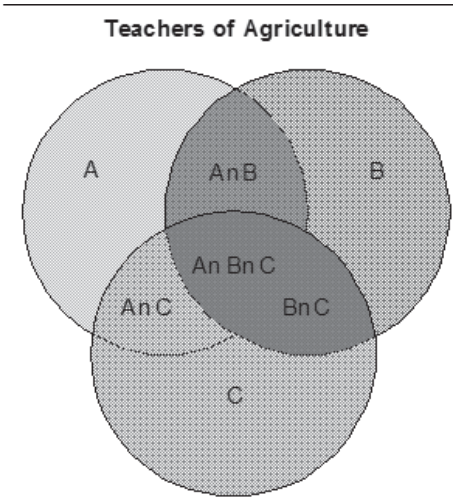

Figure 2: a 3-circle Venn diagram

Unique to the Venn diagram is the functionality of adjoining additional sets. To belabor the illustration in the previous example, let's add another set--obesity. Therefore, the light gray circle (set *A*) represents, all teachers of agriculture who are male. The dark grey circle, (set *B*) represents all teachers of agriculture who are bald. The medium grey circle, (set *C*) represents all teachers of agriculture that are obese.

A = contains the set of all teachers of agriculture who are male
B = contains the set of all teachers of agriculture who are baldheaded
C = contains the set of all teachers of agriculture who are obese
A∩B = contains the set of all teachers of agriculture who are male and are baldheaded
A∩C = contains the set of all teachers of agriculture who are male and obese
B∩C = contains the set of all teachers of agriculture who are baldheaded and obese
A∩B∩C = contains the set of all teachers of agriculture whoare male, baldheaded and obese

At this time, it would be prudent to point out that the tenet of Venn diagrams is to illustrate relationships and not to illustrate the magnitude of the relationship.

> *"My own conviction is very decided that all introduction of considerations such as these should be avoided as tending to confound the domains of Logic and Mathematics; of that which is, broadly speaking, qualitative, and that which is quantitative. The compartments yielded by our diagrams must be regarded solely in the light of being bounded by such and such contours, as lying inside or outside such and such lines. We must abstract entirely from all consideration of their relative magnitude, as we do of their actual shape, and trace no more connection between these facts and the logical extension of the terms which they represent than we do between this logical extension and the size and shape of the letter symbols, A and B and C."* (Venn, 1894)

Therefore, to manipulate a Venn diagram to illustrate the magnitude of the relationship would be improper. Subsequently, as tempting as it may be to manipulate the circles contained within a Venn diagram to show magnitude, restraint should be employed and other illustrations should be utilized to express that category of relationship.

Agricultural Education and the Venn Diagram

Research indicates that Agricultural Education adopted the Venn diagram in 1975 to illustrate the relationship between instructional activities, experiential learning activities and FFA activities. This graphical representation, depicting the self-purported integrated nature of Agricultural Education, has served us well over the years. Prior to 1928, Agricultural Education's Venn diagram would have been representative of the illustration in Figure 1-- a 2-circle Venn diagram.

It would be fair to say that those savvy in the writings of Rufus Stimson would rightfully argue that Stimson's teaching at the Smith School of Agriculture in the early 1900s was reflective of the 2-circle Venn diagram illustrated in Figure 1. It wasn't until after the founding of the FFA in 1928 that the entire Agricultural Education profession could illustrate its integrated program model using the 3-circle Venn diagram in Figure 3.

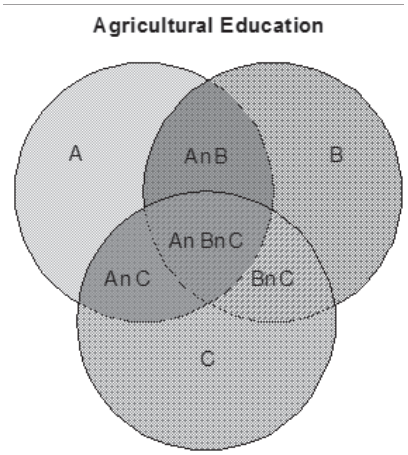

Figure 3: Universal Set for Agricultural Education: A 3-circle Venn diagram

Based upon the previous examples, it is relatively simple to transpose

the characteristics contained within sets A, B and C, therefore the following statements illustrates the relationships depicted in Figure 3.

A = Instructional activities
B = Experiential learning activities
C = FFA activities
A∩B = Instructional activities and experiential learning activities are integrated
A∩C = Instructional activities and FFA activities are integrated
B∩C = experiential learning activities and FFA activities are integrated
A∩B∩C = Instructional activities, experiential learning activities and FFA activities are integrated

Staller (2003) shared a model of Agricultural Education (Figure 4) that was developed as an alternative to the Venn diagram by Tom Kapostasy, Director of Business and Information Services at National FFA.

Staller stated that the Venn diagram is often times confusing when sharing the concept of integration with school administrators. The Venn diagram has been identified as a fundamental mathematic concept. Therefore, the interpretation appears to be as simple as transferring knowledge from the discipline of mathematics to agriculture. In education, transference of knowledge is an essential teaching and learning concept and is fundamental to Agricultural Education as it continues to be recognized as a value-added component in assisting students with the passage of high-stakes testing. Therefore, is the reason the Venn diagram is hard to explain due to the lack of understanding of the theory behind the model or is it truly a poor illustration for presenting the integrated nature of Agricultural Education visually?

Using the Venn diagram to improve community involvement and community development

The Venn diagram model for Agricultural Education is a timeless model but only if the contents of the model remain fluid. The limitation of this article does not permit the authors to wax philosophical about all three components of the Venn diagram, so we have elected to share an example of improving community involvement and community development through a retooled SAE circle.

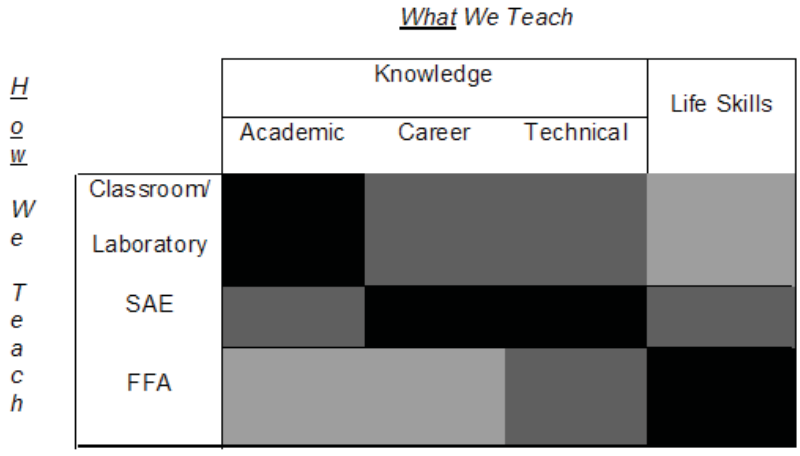

Figure 4: A Model of Agricultural Education. *Note: the darker the shading, the more intense the strength of learning "what" via the "how."*

At a recent National Council for Agricultural Education meeting, Gary Moore and Buddy Deimler unveiled a proposal for a retooled SAE model – think fluidity.

The new SAE approach being proposed is in addition to what currently exist. None of the current approaches to SAE would be eliminated; the new model would just be an additional tool for the teachers to use. For now, the acronym GALA is being used to identify the new SAE type, but that will probably not be the eventual name for the new type of SAE. GALA stands for **G**uided **A**gricultural **L**earning **A**ctivity.

GALA will consist of a series of instructional booklets (printed and online) that focus on an agricultural career. Each GALA booklet will be 10-15 pages in length and will be written in a manner that is attractive to students. When fully implemented, it is estimated there will be around 100 GALA booklets. Examples of booklets include Floral Designer, Small Engine Mechanic, Veterinarian, Forester, Beekeeper, Horse Trainer, etc. These booklets will describe each career and provide information on average salaries and training requirements. There will be links to web sites that contain more information about the specific career. But the heart of the GALA booklets will be a list of experiential learning activities the student is to complete.

Examples of experiential activities in the Floral Designer GALA might be:

- Interview a floral designer to learn more about the job and skills needed
- Identify 20 flowers used in floral design
- Tie a floral bow suitable for a 7" azalea pot
- Create a bud vase
- Develop an order and price list for 150 corsages and boutonniers
- Plus 7-8 more activities

One of the key components of the GALA concept is that a network of community mentors will be identified to assist students with their GALA projects. The teacher no longer has to do all the supervision. The FFA alumni could help identify the community mentors. Not only could the GALA impact the student, it could impact the community. People who serve as GALA mentors will feel like partners in the educational process. In addition to involving the community, there are numerous other points that should be noted. Students can experience and explore a variety of careers. GALAs could be closely integrated with the agricultural education curriculum. They would be tied to the Career Pathways. They Integrate well with required Senior Projects. They can be implemented in any school setting any place in the country, even postsecondary. Academic skills are also emphasized. Teachers could require that students complete X number of GALAs each semester and grade them.

Summary

The implementation of the GALA approach to SAE could result in a new Venn Diagram in regards to agricultural education and community involvement. GALA would be the overlap area in the diagram below.

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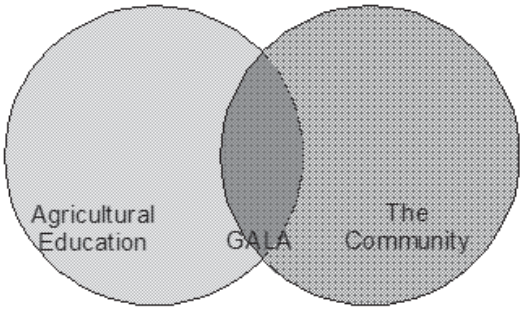
The New Venn Community Involvement/Agricultural Education Diagram



THEME ARTICLE

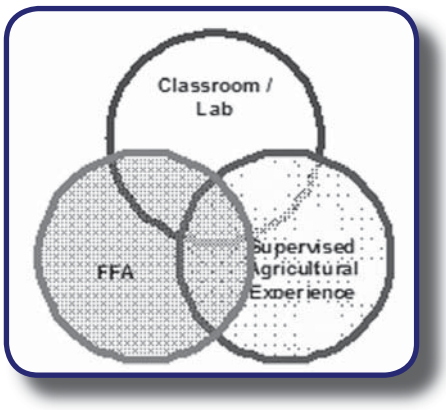
A Link to the Past:

The Development of the Integrated Three-Component Model of Agricultural Education

by Lendy Johnson

Geometry was my worst subject in high school. I always struggled with parallel lines and perpendicular angles, but I did enjoy learning about various shapes. My favorite shape turned out to be the circle. Continuous, never-ending, connected circles.

Interesting that this symbol of solidarity is what we use when we describe our current model of agricultural education. Three interlinked circles that bear the three components of our programs: Classroom & laboratory, FFA, and Supervised Agricultural Experience. I used to flash this trendy diagram across the board as I explained to my students how if one circle were missing then the chain would fall apart and our program would become incomplete. Hey, it's what my agriculture teacher always told me! In every class, I always had a student who asked, "Where did this model come from?" "Why is it so important?" Until recently, I really didn't know the answer to those questions, but I do now and I'm going to share the secret.



The three components of the agricultural education model originated at different times in American history, but were developed simultaneously. Supervised agricultural experience was probably the first of the three components to originate in the United States. It began in the form of youth apprenticeships to skilled tradesmen, or as informal education at home during colonial times. Significant achievement in establishing supervised experience in schools was accomplished by Rufus W. Stimson, principal of the Smith Agricultural School. Stimson developed the concept of the project method that taught students the basics of agricultural production methods. These students then applied the methods on their home farms instead of a school farm (Moore, 1988). The Civilization Fund Act of 1819 established a form of agricultural education and, to a minor extent, the relationship between instruction and supervised experience. SAE reached a highly sophisticated level of development when it paired first with formal instruction in agricultural education and then later with formal instruction and the FFA (Croom, 2008).

Formal instruction in agricultural education probably began in 1858 with the introduction of vocational agriculture training in two Massachusetts schools (Hamlin, 1962). Several other states passed legislation to establish agriculture schools shortly afterwards. Eventually, the federal government would recognize the need and importance of agricultural education and create legislation that specifically encouraged states to develop agriculture teacher training programs and fund local agricultural education programs. The Smith-Hughes Act of 1917 officially established agricultural education and provided a more sophisticated linkage between classroom instruction and supervised experience.

While vocational agriculture and supervised experience continued to gain support and acceptance, the third component of the agricultural education model began to grow. Organizations for agricultural youth grew out of the boys and girls clubs established at the turn of the twentieth century (Davis, 1912). At some point, agricultural clubs were organized in schools for the purpose of socialization and to stimulate interest in academic work. The FFA was officially established in 1928. The Smith-Hughes Act created a partnership between the federal government, state education agencies, and local schools in the administration of agricultural education programs, but did not specifically define the role of FFA in agricultural education. However, federal legislation amending the provisions of the Smith-Hughes Act of 1917 supported the incorporation of FFA into the local agricultural education program. The federal charter incorporating the FFA created an opportunity for the FFA organization to exist in schools supported by the Smith-Hughes Act.

Difference

Our world continues to change, sometimes faster than we can absorb. Technology advances at rates that boggle the mind. According Ray Kurzweil in his paper, The Law of Accelerating Returns (http://www.kurzweilai.net/articles/art0134.html?printable=1www. , "An analysis of the history of technology shows that technological change is exponential, contrary to the common-sense "intuitive linear" view. So we won't experience 100 years of progress in the 21st century -- it will be more like 20,000 years of progress (at today's rate)." In short, we do not know, or can even imagine all the ways technology will change our lives over the next 100 years.

Questions immediately arise: *How do you prepare for a career in times like these when many of the jobs have not even been invented yet*?, and *How do you prepare to face an "unknown" work place*?

The answers to these questions and many more can be found inside your own value system. Do you know what your values are? Can you verbalize them to others? These questions deserve careful consideration, not merely taken lightly and decided on at the spur of the moment. Here is a simple exercise you can try yourself and with your students. If done thoughtfully, it can prove to be valuable tools for defining who we are and who we become!

How Many Hats Do I Wear?

This activity is designed to look inside and begin to determine who we are. Each of us is involved in a variety of things. We all have individual goals and dreams and we all have unique backgrounds. All of these things and more make us who we are!

Begin by creating a one page diagram similar to the one above. Take 5 minutes and write in as many descriptors of yourself as possible. Then share this information with someone by **explaining why** you chose these descriptors. You can use the dialogue questions below to assist.

Identity Dialogue

1. In reviewing your descriptions, which three identities are the most important to you?
2. Looking at your descriptions again, which one identity are you the most comfortable with? Why?
3. Which one identity are you most proud of? Why?
4. Which one identity are you least comfortable with? Why?

Instructions: *Pair up with a partner, feel free to share whatever you are comfortable in sharing, and keep private whatever you are not comfortable in revealing. Try to listen for both similarities and differences in your identity dialogue.*

What is one insight you've learned

Hopefully you will find many reasons to utilize this activity. I will leave you with a little food for thought....

"People, events and things aren't always as they appear. Understanding their core values may intrigue you. You may be pleasantly surprised if you look beneath the outside covering."

~ Jack Elliot, Department of Agricultural Leadership, Education & Communication-- Texas A & M University

Think about it!
Billye

Continued from page 15

There is no established date or recognized event that created the three-component agricultural education model or significant legal basis for the integral nature of the three-component agricultural education model. Glen C. Cook wrote a number of textbooks designed to prepare agriculture teachers for field service. The various editions of the Cook's handbook provided some of the background into the development of the agricultural education model, but did not reduce the model exactly to the present day three-component version. Cook's 1947 Handbook on Teaching Vocational Agriculture identified the major areas of agricultural instruction as classroom activities, supervised farming programs, farm mechanics, community food preservation activities, and Future Farmers of America activities. Cook (1947) defined the primary aim of vocational education in agriculture as preparing current and future farmers for proficiency in farming, but concluded that both supervised farming programs and the FFA were integral parts of the vocational agriculture program. Later handbooks continued to support the three component model with the condition that the New Farmers of America also be incorporated along with the FFA.

In the 1970's, the FFA began a series of teacher development programs designed to create high quality agricultural education programs (C. Coleman Harris, personal communication, September 12, 2006). The outgrowth of these teacher development programs caused the inclusion of the integral three-component model of classroom and laboratory instruction, supervised experience, and FFA in the 1975 version of the FFA Advisors Handbook (National FFA Organization, 1975). Page seven of the text has the Venn configuration of three overlapping circles graphically portraying these three components. The model was explained in the handbook in such a way as to justify the integral nature of FFA with the instructional program. FFA activities require a combination of supervised experience and instruction. The handbook defines instruction as the classroom component involving the practical application of instruction in agricultural sciences. Instruction is explicitly referred to as a "component" of the model. Supervised agricultural experience is defined as the individual and independent application of knowledge acquired in the agricultural classroom by a student under the supervision of the agriculture teacher. State and federal legislation may have influenced the adoption of the model, but no government mandate was found that compelled agriculture teachers to adopt the model for use in their programs (Croom, 2008).

The integrated model for agricultural education seems to describe the philosophy surrounding agricultural education in the early twentieth century. It has become the guide for what agricultural education was and will become. While many agricultural education professionals see classroom instruction, supervised experience, and the FFA as integral components of a larger model, there are others who do not share the same sentiment. For the model to be successful there must be a commitment by all stakeholders to deliver all components collectively to those students who can be served by it.

We are entering a new era of agricultural education. Our society is constantly evolving and we as a profession must stay abreast of current trends to ensure that we provide quality programming to students and our communities. Community support is the foundation of any agricultural education program. The components of our model should be the pieces of the puzzle that meet our communities' needs to the absolute highest standard.

By 2015, we have set a goal to have 10,000 quality agricultural education programs across the United States. Will our current agricultural model lead us into the future? Has this model become obsolete? Perhaps alternative models for the delivery of agricultural education would be very useful to the profession. Or maybe the three circles are so intertwined in our profession's history that we cannot break the link.

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THEME ARTICLE

Revitalizing Supervised Agricultural Experience to Meet the Needs of a 21st Century Community

By Paul Lanoue & Eric Sawatzke

In 2002, the National FFA Organization broke another milestone by awarding Karlene Lindow the American Star Farmer, the first female to be given this top honor. This once again proved that Agricultural Education does lead in the changes that are occurring in our society. As our communities experience change, so does our curriculum, our activities and our achievements. But is it enough to make the changes that meet the needs of 20th Century advancements, or is it time to tackle a new set of changes?

The community in which we teach is a carbon copy of many across the nation. Agricultural production is the foundation of its economy with a melting pot of commodities from traditional cropping systems and livestock producers to bison farmers and organic wholesalers. Anyone planning on teaching agriculture here would assume that they would have classes filled with farm-raised students who have an interest in production agriculture or even a career in a field related to processing, marketing, or communicating in the agricultural industry. One day in the agricultural department will show a very different mix of students. Each class is a mix of male, female, black, white, Hispanic, Asian, Somali, etc. Some live and work on the farm while many others have never seen livestock.

The constant struggle in current Agricultural Education programs is to identify ways to balance FFA, Classroom, and Supervised Agricultural Experience (SAE) with an incredible change from the production-based students we were used to in the first 75 years following the Smith-Hughes Act and the founding of the FFA. The big hurdle to keeping SAE a vital part of education is finding experiences for those who have yet to see their connection to agriculture. To be able to stimulate young learners to explore agriculture takes a mix of internal and external motivators that tie their learning with their passions.

Step 1

The first and easiest step to balancing all three aspects of Agricultural Education is to require that all students in our agriculture classes must have an SAE. This is not a requirement that each student develops a deep, long lasting program of study. Instead a simple requirement of five to ten hours of learning outside the classroom in an area of agriculture that interests them sometime during their enrollment in agriculture class. By establishing this standard in all classes in an Agricultural Education Department, the students quickly learn to expect this requirement and may even plan out their project prior to the start of a quarter or semester.

An established, unwavering commitment to SAE gives the students solid ground to start their experiential learning. The challenge then becomes finding ways to engage students through internal motivators. As communities evolve, the youth show the most profound evidence of these needs. When it comes time to identify an SAE and define goals and learning objectives, non-traditional experiences are becoming more of the norm each year.

Before determining what experiences encompass an agricultural experience, the skills that teachers look to teach their students must first be defined. The 1991 Secretary's Commission on Achieving Necessary Skills (SCANS) Report for America 2000 defines the three-part foundation of skills that the American workforce needs for the 21st Century as Basic Skills, Thinking Skills, and Personal Qualities (SCANS, 1991). Each SAE must incorporate reflection on the development of these skills to ensure that students are developing the necessary tools to be successful players in the workforce.

As students develop their SAE, many experiences will incorporate new areas of agriculture. Biopharmaceuticals, teaching others about an area of interest, and healthy family meal planning are some topics that arise as interests of today's high school students. These may be far from long held SAE's in crop production or diversified livestock production, but the same overarching goals can still be attained.

Those interested in medical careers can gain experience at a local clinic or hospital. Someone that would like to teach a friend how to drive a tractor while they harvest alfalfa

can become the agriculture teacher. A student who feels they have no connection to agriculture can work on a new menu for their family meals that improves their health. Not only are these areas related to agriculture, but they are also great opportunities to learn what skills adults in career fields related to their experience need to be successful.

As courses come to a close, students report on their SAE and describe what they have learned through their experience. Students begin by describing the basic skills required to complete their SAE. While completing their SAE and describing their learning through a presentation, students must conceptualize how their learning relates to agriculture and to future career possibilities through a variety of higher order thinking skills. Finally the students are able to gain respect for themselves and better understanding of their role in their community now and possibly in the future.

Community Benefits

Agricultural Educators are now educating a high percentage of students from urban/suburban backgrounds; in addition, most of our rural students are from non-farm backgrounds (Hains, 2006). As the demographics within our community evolve, we seek to explore the question, "How can we best serve our students and help them to succeed in our local and global communities?" With a majority of students not engaged in production agriculture, one can incorrectly dismiss the vitality and importance of the SAE program.

Even within a diverse community, valuable SAE experiences can be found to enhance our future workforce. Gender and racial labels are disregarded when students are engaged with members of the community performing meaningful projects. By learning side by side, students and their mentors are able to gain understanding of company values and work ethic not found in the traditional classroom setting. Community members benefit from raised awareness of the younger clients they serve and heightened stake in attracting future employees. Students benefit from exposure to a variety of facets of agriculture that may have been overlooked without the structure of a sound SAE.

Occasionally, the background of parents may hinder the study of agriculture as a viable career option. Current students may have parents working in facets of agriculture that are labor intensive or have minimal relationship to agriculture at all. Waves of immigrants have changed rural and suburban demographics dramatically throughout the history of our country. Rather than keeping the narrow focus of production agriculture as the only type of SAE, a broader range of students will see direct benefits from examining a refined view of the SAE. Encouraging an expanded view of the opportunities in agriculture through an SAE allows career exploration to meet the local and global demand for a qualified workforce.

An aging workforce, new immigrants, emigration, and a decrease in the number of individuals engaged in production agriculture are opportunities for communities to redefine their niche in society. Motivating students to explore the immediate need of the community through meaningful activities fills a direct need while promoting vitality of innovation within those communities served by Agricultural Education.

Perception of vitality of an Agricultural Education program is crucial to long term continuality. By successfully implementing an expanded vision of SAE into the curriculum, the community becomes more engaged through the projects of students. Whether the project is fundraising for a local charity, assistance given to the elderly, or becoming an entrepreneur to meet local demand, communities take notice when students become innovative. Engagement from a diverse group of students into the community affords understanding and lasting commitment to the future of Agricultural Education and more importantly to the student.

The foundation of encouraging student success through SAE has remained unwavering for the past 75 years. Regardless of gender, race, or background, the fundamentals of gaining experience in areas of agriculture students find interesting through learning by doing remain consistent. By revisiting the role of the SAE in the 21st century, Agricultural Education students will be able to make a lasting impact on our diverse and changing communities.

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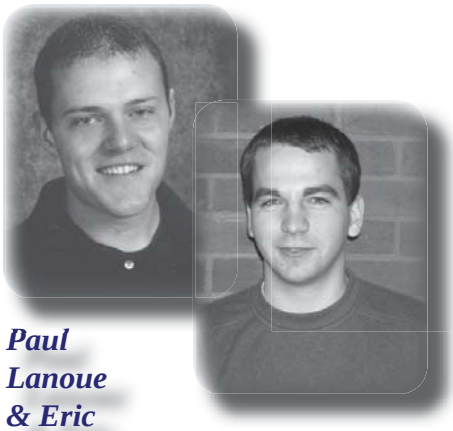

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THEME ARTICLE

Meeting Agricultural Education Community Needs Through Experiential Learning

By Shannon Arnold & Carl Igo

Career Development Events are a great form of experiential learning – the participants have opportunities to demonstrate the knowledge and skills they have gained through classroom and lab instruction. At Montana State University, the concept is taken even a step further. College students plan and implement the state-level CDEs for the high school students, thereby meeting the needs of the agricultural education community in Montana.

"Agricultural Youth Event Management" or AGED 400 prepares pre-service agricultural educators to plan and implement activities for youth, such as County and State Fairs, 4-H contests, and FFA Career Development Events (CDE). This task gives students experience in learning how to plan the event, obtain resources, organize details, manage volunteers, maintain records, improve time management skills, and evaluate the effectiveness of the actual event. This not only meets the needs of the agricultural community, but provides students with an authentic learning experience in a realistic setting. The leadership skills prove valuable for those who are pursuing careers working with youth and event management, particularly in agricultural and extension education. High school teachers who completed the course as MSU students have noted they feel much better prepared to organize and implement local and district-level events.

Course Implementation

This pragmatic course builds students' leadership skills through planning, implementation, and evaluation of the annual Montana FFA State Career Development Events. It is intended to provide information and practice for students in any agricultural major, but particularly those whose major is Agricultural Education. The course is offered every spring semester to align with the Montana Career Development Events that are offered at the State FFA Convention. Each fall, nominations and selections for event head chairs, co-chairs, and committee members are made at CFFA meetings. Once decisions are finalized, all students involved in an event must register for the AGED 400 course.

The course is coordinated by two student head chairs with oversight provided by three members of the Agricultural Education faculty. An online learning management system is used for delivery of information and updates, as well as group work, email, and discussions. Students work in their committees during class according to their assigned CDE – Agricultural Mechanics, Agricultural Sales, Agronomy, Extemporaneous and Prepared Public Speaking, Farm Business Management, Livestock, and Parliamentary Procedure. Additionally, committees are formed for the Agri-Science Event CDE scoring and a convention dance. Instructors provide information and feedback weekly. Class assignments include development of an advisor letter and timeline, materials list and budget, contest written materials (exams, exam keys, practicums, practicum keys, speaking topics, judges' rules, directions, event layout and design), list of personnel and duties, names of volunteers assisting with the event and their roles, an individual final reflection paper, and peer evaluations. Because the event location changes yearly, students are also required to visit the site early in the semester to see the facilities and visualize event layout.

Each member of the Agricultural Education faculty serves as an official advisor to specific events based on expertise. Students must consult with faculty each week on event plans, updates, and organization. Faculty serve as the final editors of all written materials to ensure the accuracy and suitability of information for the event. Each CDE also has a consultant committee comprised of three agricultural education teachers who are selected based on previous state and/or national success in the event. Finally, the State FFA Advisor and FFA Foundation Director serve as liaisons to overall convention details and sponsors. Supervision by an advisory committee of consultants, agricultural education teachers, and faculty helps to provide oversight and integrity to each event as well as the overall CDE experience. Bill Jimmerson, Montana State FFA Advisor, noted that, "The consistency and quality of CDEs has continually improved since

the course was implemented."

Community Involvement

Students engage in valuable interactions with agricultural education advisors, industry representatives, community members, agribusinesses, and agricultural professionals. The yearly site rotation of the State FFA Convention also benefits recruitment of future College of Agriculture students as well as the economies of host communities. Local businesses and organizations gain public recognition with all ages of potential consumers by becoming contest sponsors and judges, and are acknowledged onstage at the CDE awards ceremony.

The interactions with agricultural teachers, the State FFA Advisor, and the Foundation Director allow students to improve communication skills and build positive relationships. The students utilize the consultant committees to make final decisions during the event planning stages. This ensures alignment with National and State FFA CDE rules. In addition, the team of consultants is responsible for examining the event scores prior to awards announcement. These interactions provide students with valuable connections to important resources for future internships, teaching placements, and educator positions.

Program Accountability

Program accountability is directly measured by the effectiveness of the event. This is due to the fact that Montana agricultural education teachers have an expectation of well-organized, well-run, quality Career Development Events that allow students to showcase their talents. Montana's teachers are aware that Collegiate FFA members coordinate the events, but it is ultimately the Agricultural Education program at MSU that receives both the credit and the criticism for the entire CDE event and its components. University faculty and administration recognize the positive impact Montana's agricultural education teachers have on recruiting the best and brightest students not only into the various degree programs in the College of Agriculture, but throughout the university. Therefore, there is an expectation from the highest levels of administration at MSU that filters down through the College to the various faculty and staff involved in any aspect of the CDE. This then transfers to the students who willingly take on the responsibility to facilitate a quality event.

Program Continuity and Impact

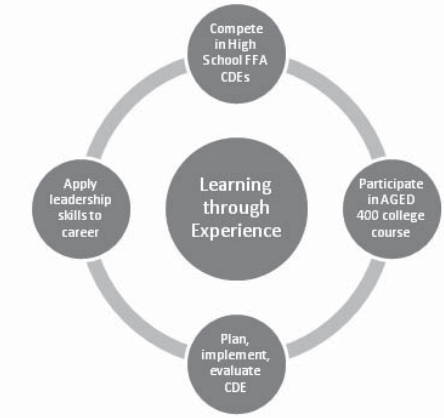
Program continuity is ensured by the required documentation of the event into a working electronic portfolio. As students move on in their education and careers, consistently having students with detailed knowledge about a particular CDE is not always possible. Each CDE is truly a team effort and by using a team approach, students work together to facilitate a quality learning event. It is the desire of every person involved to work toward making each event in every successive year as good as or better than previous years. Students are required to document all communication, information sources, professional contacts, materials, and resources used to implement the contest. This process helps to ensure event consistency from year to year and leaves a legacy for each CDE. Ultimately, this is an opportunity for MSU students to provide an exemplary learning experience to the high school students and teachers, while also engaging in an exemplary learning experience themselves.

The impact of the course has been revealed in the positive course evaluations and student comments received throughout the years. "Being involved as a head chair in the FFA State Convention was one of the best experiences of my life… the biggest challenge that I overcame was the realization that things will happen beyond your control and no amount of planning can avoid imperfections." Another stated, "Serving as head chair was a new experience for me. I competed in the event all four years in high school, but have never been involved at the collegiate level…I learned how to handle tricky situations in a calm and collected manner." One student explained, "Having never been in FFA, this was truly an eye opening experience. I was not aware of all the work and organization that is required for an event of this size to be a success. Working on this convention made me appreciate all the hard work, time, and effort so many people put into these events to make them successful." Another commented, "Learning about the process, work, and time that goes into the contests and convention behind the scenes for the first time… helped me gain an appreciation for the people who helped when I was taking part in the contest as well as for the advisors who aid and assist without the slightest hesitation…the contest is a great measurement of students' abilities and helped me to gain some ideas and solutions to plan contests better in the future."

Program Model

The learning by doing model emphasized in agricultural education offers students the opportunity to utilize principles learned in class and apply them in real life situations (Kolb, 1984). The emphasis of the course is to allow students to

identify and examine agricultural education community needs and develop the knowledge and skills to meet those needs. Following the four components of Kolb's Theory of Experiential Learning (1984)- concrete experience, reflective observation, abstract conceptualization, and active experimentation, a program model for experiential student learning related to this course is outlined (Fig. 1). High school agricultural education students participate in FFA CDEs and gain experience as a participant. Once in college, students enroll in the "Agricultural Youth Event Management" course to improve their professional skills. Here, they reflect on their experiences from high school competitions and plan a CDE from an organizer's perspective. This role allows students to give back to the Montana agricultural education community using their prior knowledge and skills. During



planning, students not only learn important leadership skills, but also make improvements to the event based on prior experiences. The exposure to these authentic learning experiences builds students' confidence in working with youth and program development that can be applied in their future agricultural careers.

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THEME ARTICLE

Provincial Quality Program Standards for Secondary Agricultural Schools in Western Iran: *What we have been doing to meet our community's needs!*

By Kiumars Zarafshani

There are 64 secondary agricultural schools in Iran, with an average enrollment of 550 students in each school. Out of these, 8 secondary agriculture schools are located in my hometown, Kermanshah province in the western part of Iran. As a part of a research study for Education and Training Organization, I was given an opportunity to come up with a set of standards for secondary agricultural schools so that our agriculture in our community would function more effectively. I decided to conduct an extensive literature review of standards or indicators on secondary agricultural programs. My literature review was based on books, journal articles, research conference proceedings, government reports, bibliographies, personal diaries and letters, and in some cases newspapers and popular magazines published in Iran. And what did I manage to find? Not much on agricultural education. There were numerous publications on all fields except agricultural education. For months, I felt that I should give up the whole thing and forget that I had ever started such a project. However, being educated in the United States, I continued my search ouside Iran and managed to contact an associate professor at Purdue University who was willing to help me find a set of standards or criteria that I could use in my study. Finally, there came National Quality Program Standards for

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Soaring With Your Strengths: Using Learning Style & Personality Type Preferences to Enhance Community Development

By Gregory A. Davis

You might be asking yourself, "How can learning styles and personality possibly influence community development?" Actually, learning styles and personality can play a significant role in the ability of educators to effectively address community needs. Before I explain how this can happen, we need to spend a little time understanding some basic learning styles and personality models. Your learning style is how you mentally sort and process information. Your personality type refers to the manner by which you approach life's experiences. Two of the most widely studied models used to explain learning style and personality type in agricultural education research are Witkin's field dependence/independence model and Myers-Briggs psychological typology, measured by the Myers-Briggs Type Indicator.

Field Dependent vs. Field Independent

Witkin's field dependence/independence model describes one's orientation to the surrounding field or environment. Individuals whose mode of perception is strongly dominated by the surrounding field are described as field dependent. Individuals whose mode of perception is largely unaffected by their environment are described as field independent. Field dependent individuals are typically extroverted, extrinsically motivated and influenced by peer groups and authority figures, and prefer a 'spectator approach' to learning. Field independent individuals typically possess less effective social skills, are typically introverted, intrinsically motivated, prefer competition, choice of activities, and ability to design studies and work structure. Field independent individuals typically prefer to design learning goals and directions themselves. Areas of study and vocational areas involving analytical skills such as mathematics, engineering, chemistry, biological sciences, and technical and mechanical activities are more likely to attract field independent students. Field dependent students avoid vocational and academic areas requiring analytical skills and prefer people-oriented fields, such as elementary teaching and teaching in the social sciences, counseling, and sales and advertising where social skills could be exercised. Educators with a preference for field dependence make interacting with the community seem natural and easy. These educators use their ability to connect with people to develop partnerships, engage citizens in projects, and pull together teams to solve community problems. Educators who prefer field independence often have good skills at analytical problem solving, and conceptualizing problems and solutions. The field independent educator has to allow for the tendency to work independently, and make a conscious effort to involve others in the community development process.

Personality Type

The Myers-Briggs model characterizes learners using four scales for attitude, perception, judgment, and function. The first scale is the Introversion/Extroversion scale, and it explains where we tend to receive our energy. Extroverts draw their energy from other people and project energy outward making actions easy for all to see. Extroverts:

- Speak freely and vocally.
- Absorb themselves in activities.
- Are easily distracted.
- Enjoy a public arena with lots going on.
- Meet people readily.

Extroverts are particularly well suited for developing good working relationships with citizens in the community, provided they can master the details of the relationship. On the other hand, introverts draw their energy from themselves. Introverts:

- Are difficult to know.
- Absorb themselves in thought.
- Avoid crowds.
- Concentrate well.
- Reflect and act in a careful way.
- Get agitated without enough time alone.

Educators who prefer extroversion have the potential to engage the community in a program, while educators who prefer introversion tend to be leaders in developing the community development plan. Neither extroversion nor introversion is preferred over the other. Educators with

strong preferences either have the potential to be effective in community development if the preferences are applied wisely.

This is also true of the sensing and intuitive preferences. Information gathered or perceived using the senses is described as sensing (S), while information obtained through use of one's subconscious is described as intuition (N). The following chart explains the differences between the two preferences.

Sensing	**Intuition**
• *Use direct observation and first-hand experience.* • *Focus on actual experience.* • *Learn through observation.* • *Appreciate traditions.* • *Behave practically.* • *Value a step by step manner.*	• *Utilize a sixth sense.* • *Focus on possibilities.* • *Behave imaginatively.* • *Are restless, seeing how life can be different and trying to modify it.*

By themselves, each preference makes a poor choice for the effective educator trying to establish a community development program. Educators with strong tendencies in one or the other should find a way of connecting with partners who can balance the strong tendency.

Community development depends upon informed decision-making. One makes sense of this information or perceptions through the use of logic and objectivity, described as thinking (T). The opposite type of reaction involves personal reflection and consideration for others, described as feeling (F). By themselves, each preference makes a poor choice for the effective educator trying to establish a community development program. Like the sensing-intuition tendencies, educators with strong tendencies in either thinking or feeling should find a way of connecting with partners who can balance the strong tendency.

Thinking	**Feeling**
• *Have truth as the objective.* • *Notice ineffective reasoning.* • *Decide more with head.* • *Deal firmly with people when required.*	• *Have harmony as the objective.* • *Prefer to agree with other people's findings, believing people are worth listening to.* • *See encounter with people as friendly.* • *Notice when people need support.* • *Choose tactfulness over truthfulness.* • *Focus attention on personal motives.*

One's orientations or attitudes toward the outer world are described in terms of preferences toward structure or spontaneity. One whose orientation toward life is characteristically ordered, structured and decisive is considered to be a judging type, (J). Conversely, a free and open orientation toward life is described as a perceptive attitude.

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Secondary (Grades 9-12) Agricultural Education: A project By the National Council for Agricultural Education. I found some of the material in that project adaptable, but a majority was not so much adaptable in our context. For example, experiential learning standards were applicable, but FFA or Supervised Agricultural Experience Programs were not applicable in the context of Iranian secondary agricultural programs. As noted, there was no set of Iranian standards for secondary agricultural education and, as a result, I knew that I should take an exploratory and eclectic approach in my study. Consequently, I decided to take an indigenous approach and started developing standards that are more objective in nature and yet applicable in the context of Iranian secondary agricultural schools. The following standards are proposed in order to meet the philosophical foundations of agricultural education programs in Kermanshah province: 1. Student-teacher ratio: this ratio works best at 1: 28. If secondary agricultural education programs are to take place in an active learning environment where students do more than just listen (Birkenholz, 1986), they should be provided with an opportunity to read, write, discuss, or be engaged in solving problems. For this opportunity to take place, an over crowded classroom is not an answer. 2. Size of farm per student: According to Garton et al. (1992), learning by doing is one of the core principles in vocational agricultural education. If students in secondary agricultural schools are to learn through hands-on experience, every student should be given an area of 350 square meters of farm land to practice what is being taught. This area is large enough to get experientially involved and yet small enough to be monitored by an agriculture teacher.

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Judging	Perceiving
• *Prefer life to be decisive.* • *Work for a settled life.* • *Enjoy finishing things.* • *Desire to be right.*	• *Seek to adapt life and experience what comes along.* • *Prefer to keep things open.* • *Enjoy starting things.* • *Keep life flexible.*

Factors Related to Personality Type

Extroverted and introverted pre-service agricultural educators indicated preferences for sensing (S), thinking (T), and judging (J) more than any other type combination. Female pre-service agricultural educators indicated a preference for feeling (F), whereas male pre-service agriculture educators were more likely to be identified as thinking (T). Educators tend to be more likely than other professionals to indicate a preference for judging (J) over perceiving (P).

Educators who focus on community development programming typically perceive in a global perspective framed by personal surroundings. They make broad, general distinctions among concepts and generally prefer interacting and working with others in practical, useful activities. They value social reinforcement and the opinions of others and typically prefer focus, structure, and organization to their environment.

The overall benefit to understanding learning styles and personality type models is that we gain a better understanding of ourselves and how we relate to others. A significant component of community development is the building of relationships with citizens. If we use what we know about our learning styles and personality preferences to design solutions to community problems, then we have cleared the first major hurdle of community development – reaching common understanding.

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3. Quantity of water resource per student: Water is a scarce resource in Iran. Therefore, secondary agriculture students should think conservatively when it comes to irrigating their fields. I found 1 liter per second per student to be sufficient for water supply in agricultural schools. In other words, the capacity of water wells should supply each student with 1 liter per second. This way, students would have the opportunity to learn most irrigated field crops as well as non-irrigated crops. As I look for more standards and measures for our secondary agriculture schools, I get the impression that I am doing something for my community. As an agricultural education lecturer and a field practitioner, the search for more indigenous secondary agricultural education standards continues until we have our own national quality program standards for secondary agricultural education.

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THEME ARTICLE

Adding Context to Content: *The Memorial Middle School Agricultural Science Center Model*

By Peter Skelton & Tom Dormody

The Memorial Middle School Agricultural Science Center (MMSASC) is a youth science center emphasizing participatory learning and experiential education. A basic premise of the MMSASC mission is to develop a teaching and learning model of excellence for agriculture and natural resource sciences that complements in-class instruction by providing context to content through hands-on learning opportunities. The center meets public education needs and challenges by engaging youth, grades 6-8, in science, technology, engineering, and mathematics (STEM).

The MMSASC model features a unique and synergistic partnership between New Mexico State University Cooperative Extension Service and Agricultural Experiment Station faculty and staff, the New Mexico Legislature, and a public middle school's teachers and students. That the model is being first developed and tested in Las Vegas, New Mexico is no accident. Approximately 89% of Memorial Middle School's 446 students are Hispanic, 66% are economically disadvantaged, and 27% have special needs.

The MMSASC and Experiential Learning

In developing the role of the center, science teachers from the middle school identified three primary areas in which they felt their students needed to improve: understanding the scientific method, general knowledge of agriculture and natural resources, and investigative opportunities and thought. The MMSASC has developed well-defined classroom and laboratory instruction and project-based learning components to address these areas. As part of the delivery model, the MMSASC integrates experiential learning as an important educational component. Learning through direct experience is not an alternative approach to teaching and learning, but rather, a fundamental educational method (McCleery et al. 2005 and Salomonsson et al., in press). Experiential learning is particularly important in STEM education because investigation is at the core of the learning foundations.

The MMSASC is uniquely positioned to provide experiential learning opportunities through programming efforts, facilities, and University faculty support of middle school teachers. With an emphasis on natural science, environmental science, and agricultural science, unique teaching and learning opportunities are created and have led to the formation of links between the disciplines, with the goal of forming links between the teachers of those disciplines to provide a holistic interdisciplinary approach to teaching and learning. The MMSASC is able to deliver programming that includes the following features: opportunities to learn about science in a relevant

Students planting row crop.
Photo courtesy of New Mexico State University.

and applied context; dependable interaction with scientists; access to instructional materials; resources; and, planning of instructional activities.

Through the planning of instructional activities, the MMSASC has been able to form a variety of partnerships with non-profit organizations, foundations, governmental entities, and other state institutions of higher learning. Partnerships like these have been invaluable in educational programming efforts; exposing students to the wide range of ecological and cultural settings; exposing students to opportunities in agriculture, natural resources, and STEM disciplines; and, statewide efforts by the New Mexico Public Education Department to support and enhance outdoor education. The MMSASC also plays a role in professional development by providing workshops for teachers from the Northern New Mexico School Network, representing 23 school districts in New Mexico, in agricultural and natural resources science areas.

The MMSASC and 10x15

In 2007, the National Council for Agricultural Education, in support of starting a taskforce to identify innovative agriculture, food, and natural resources (AFNR) education program delivery models (Initiative #3 of the 10x15 Long Range Goal for Agricultural Education), stated:

> A compelling case can be made that a strong U.S. agriculture industry is vital to the health, safety and prosperity of this country. The agricultural industry will continue to demand an ample supply of leaders and workers who are prepared with the knowledge and skills to power this critical sector. To meet the need of the agricultural industry and ultimately the needs of students, Agricultural Education needs to develop new, innovative program delivery models that will attract and serve a greater pool of students. For program growth and enhancement to take place in Agricultural Education, a rigorous and relevant curriculum must be established and new delivery models must be developed to provide the requisite training to meet the aforementioned needs of the industry (pp. 4-5).

The MMSASC is such an innovative AFNR program delivery model. The program seeks to improve achievement in STEM subjects through hands-on lessons, projects, and experiments undertaken in the MMSASC greenhouse and land laboratories. These educational activities are meant to enhance learning in academic classes by grounding academic teachers, their students, and academic content in real-world AFNR contexts.

Although the model does not yet directly include a formal FFA component, it is integrating leadership life skills development into the curriculum. The program is the feeder to the Robertson High School agricultural education and FFA programs. MMSASC is exploring ways to involve students who move on to the high school in designing and implementing AFNR experiments and projects at the center.

Research on the Model

It is critical that we begin determining the impacts of the MMSASC teaching and learning. Where the NMSU Agricultural Experiment Station fits into the picture is in conducting research to determine if the MMSASC delivery model makes a difference over a traditional educational approach. NMSU, and the Las Vegas City Schools and West Las Vegas school districts, are cooperating on a four-year quasi-experimental study to compare science achievement, AFNR achievement, leadership life skills development, and career interests between students participating in MMSASC learning activities for three years of middle school and students at a control middle school who receive their instruction without the agricultural science center enhancements.

A Final Note

We want to finish with another quote from, the National Council for Agricultural Education (2007):

> The profession needs to develop additional innovative program delivery models that meet the needs of a relevant curriculum in agriculture, diverse communities and technology savvy students in a global environment. These delivery models must leverage the positive content and methods developed by agricultural educators to serve more students, communities and sectors of the agricultural industry. These alternative program designs must provide agricultural educators with program options and resources that allow them to best serve their local communities and attract broad community support (p. 6).

The MMSASC is an innovative AFNR education delivery model with a relevant curriculum that serves a diverse community in Northern New Mexico. The research that will be conducted over the next four years on the MMSASC will determine if it is a program delivery model that makes a difference in student learning and career choice and is worthy of diffusion. The research

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will also assist those developing and implementing the model in improving it to maximize its impacts.

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Sixth Graders holding bean plants for a fertilizer experiment. *Photo courtesy of New Mexico State University.*

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