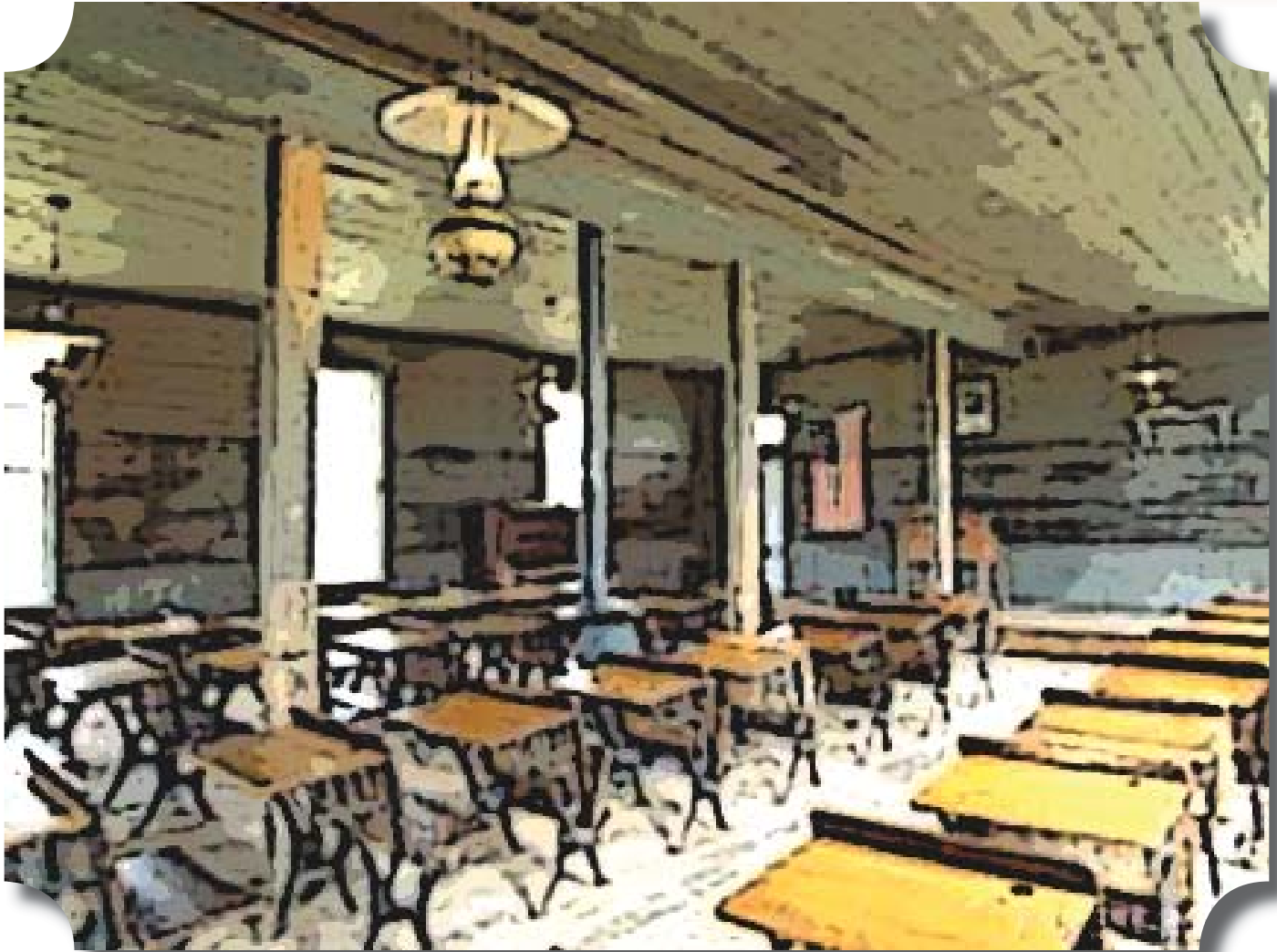


# *The Agricultural* **EDUCATION**

September/  
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2008  
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Issue 2



**Is Agricultural Education really  
the *premiere* educational  
delivery model?**

# Who Dares to Teach....

*By Billye Foster*

*“Who dares to teach, must never cease to learn.”*

~John Cotton Dana

**D**ana’s quote is a true fact as anyone who has spent more than 5 days in a classroom will testify. However, I think there is a proverb that should inextricably attached to Dana’s quote...

*“Don’t throw the baby out with the bathwater!”*

Agricultural education has spent over 100 years developing and testing a teaching model. Have you ever considered how, in a world fraught with change, our

profession’s approach to education has remained the same? My contention is this: Our ‘baby’ is our teaching model. Our ‘daring’ centers around the flexibility built into that model.

If you ask any agricultural education teacher to explain their program, I’d wager one of their top three statements would contain “...tailored to fit the needs of our students and community.” Over the years the topical matter taught in agricultural education classrooms has stretched, grown and evolved from basic production agriculture to include things like biotechnology, companion animals, environmental concerns and wildlife habitat, leadership, public speaking--the list seems never-ending. However, in all that time the model has remained solid, not really changed--just enhanced. It is this ongoing consistency that makes our discipline strong.

As you explore the articles in this issue, you will note one over-riding similarity--belief in the model. Foundations ARE important. This is a proven fact in everything from building a home to applying make-up--without a solid foundation, all of the rest of your work is for naught, a temporary thing.

The great minds of early agricultural education leaders developed a very sound foundation for our teaching model. Emersing us in the philosophy of experiential education and engaging environments, they were truly light years ahead of their peers. Today we reap the benefits of their vision.

Our generation, as those before us, is faced with choosing the path to follow. Let’s hope we make that choice with the wisdom of our forefathers.

I think you will enjoy these articles and come away with a refreshed view of your profession. It is good to “remember” why our profession is so long-lived and why we believed in it in the first place!



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

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## Still the Best

by John Mulcahy

There simply are no members of any other educational profession who when asked what their delivery system is or the philosophy behind it can respond as quickly and succinctly as teachers of agricultural education. The reason for this is twofold: First, every one of us had it drilled into us during our pre-service preparation. Secondly, every one of us has witnessed the fact that the model works. The agricultural education model works and it works for students of all abilities and all learning styles.

The question asked in this issue of the Agricultural Education Magazine is, "Is agricultural education still the premier model?" The answer is resoundingly "yes". In the pages that follow you will read numerous testimonies to the value and importance of the agricultural education model. It is still the best!

This issue of the magazine begins with an article by Drs. English and Alston of North Carolina Agricultural and Technical University. The authors remind us of the educational theory behind the agricultural education model. They remind us that "all instructional programming should be aligned with the three domains of learning as proposed by the educational psychologist, Dr. Benjamin Bloom." These domains include the cognitive, affective and psychomotor.

English and Alston's article is fol-

lowed by an article written by Dr. Knight of the University of Arizona. Knight reviews the latest information on neuroscience and concludes that the agricultural education model is driven by a solid scientific understanding of how the brain works. Knight also suggests that educational reforms such as No Child Left Behind (NCLB) are often driven far more by political agendas than good science.

Jack Elliot and Randi Nickels from the University of Arizona follow Knight's article. Elliot and Nickels remind us the agricultural education delivery model "is a holistic approach to education that...strives to reach all types of students and educate those students as a whole."

Walt Wesch, a high school agriscience teacher, suggests in his article that no educational model does a better job of providing immediate application of learning. He describes several scenarios in which students make connections between what they are learning in school and what they will later do in life.

In an article entitled, "FFA Alumni: A Tool for Enhancing the Premier Model of Educational Delivery," authors John Ewing and Kristina Watson maintain that implementing the agricultural education instructional model is no easy task. They suggest that inviting FFA Alumni members to assist will make it possible for agricultural education instructors to truly deliver all parts of the model.

Dale Crabtree from the National FFA makes a case for how

successfully the agricultural education model can be used to teach academic skills such as math and science. Crabtree reminds us that NCLB and ongoing reform efforts will demand that we fully integrate core academics into our agricultural education programs.

Crabtree's article is followed by an article from Kristina Haug and Greg Thompson of Oregon State University. Haug and Thompson argue that if we are looking for the ideal model to improve all of education we need look no further than the model used in agricultural education.

This issue of the Agricultural Education Magazine concludes with an article by Jay Jackman, executive director of the National Association for Agricultural Educators. Jackman argues that agricultural education is indeed the premier educational delivery system. However, he also argues that there is work to be done, particularly with regard to supervised agricultural experience programs and classroom/laboratory instruction.

*"Is agricultural education still the premier model?"*

You bet!

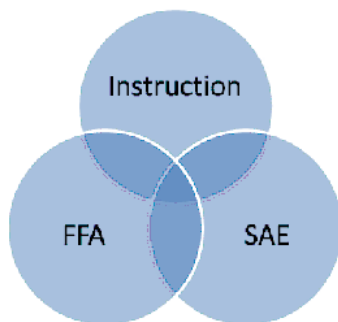


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# Traditional Agricultural Education Programming Meets the Three Domains of Learning

by Chastity Warren English & Antoine J. Alston

Over a decade ago as a veteran agricultural education teacher in Eastern North Carolina cleaned out his classroom in preparation for his pending retirement, he reflected over his thirty years of service. He remarked how education and more specifically agricultural education had changed during his career. During his tenure, he had witnessed the transition from chalkboards to computers, filmstrips to DVDs, segregation to integration, NFA to FFA, and production-focused curriculum to agriscience. Out of all of these changes the one thing that had stood as solid as California Redwood was the classic agricultural education program model of Instruction, FFA, and Supervised Agricultural Education (SAE).



**Figure 1.** *The Traditional Agricultural Education Programming Model*

As agricultural education has moved forward over the last ten years with

the emergence of mobile technology, constantly changing state, local, and national standards, and the evolution of a more interconnected global society, has the educational programming model kept pace? Are secondary and postsecondary agricultural education programs preparing students with the requisite, knowledge, skills, and dispositions to function as 21st century ready professionals, who will lead the global, food, fiber, and natural resources industry? Is agricultural education still the premier educational model for today's student?

## **The Three Domains**

Classic teacher education preparation has emphasized that all instructional programming should be aligned with the three domains of learning as proposed by the educational psychologist, Dr. Benjamin Bloom, and his cohorts. These three domains are the cognitive (knowledge-based domain), affective (attitudinal-based domain), and lastly psychomotor (skills-based). If this instructional paradigm is true, then agricultural education pedagogy should be fully integrated with these domains.

### ***Agricultural Education – Cognitive Intersection***

The cognitive domain as proposed by Bloom (1956) emphasized the internal thought process and the different stages of thought development. How does the traditional agricultural

education paradigm fit into this schema? Table one displays the revised taxonomy as developed by Anderson and Krathwohl (2001).

### ***Agricultural Education – Affective Intersection***

The affective domain as proposed by Krathwohl, Bloom, and Masia (1973) emphasized the way in which one deals with things emotionally, such as motivations, values, feelings, appreciation and attitudes. How does the traditional agricultural education paradigm fit into this schema?

### ***Agricultural Education – Psychomotor Intersection***

The affective domain as proposed by Simpson (1972) emphasized motor-skills, physical movement and coordination. How does the traditional agricultural education paradigm fit into this schema?

## **Conclusion**

As one can see from the aforementioned examples of the classic agricultural education program model, the model clearly aligns with the three domains of learning: cognitive, affective and psychomotor. Student learning does not take place in a vacuum, but instead the learning process is comprised of vari-

<i>Category</i>	<i>Instruction</i>	<i>FFA</i>	<i>SAE</i>
<b>Creating:</b> Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing.	Agriscience project focusing upon new fertilizer method.	Develops a community service project based upon the Program of Activities.	Develops a startup agribusiness based upon participating in an Entrepreneurship SAE.
<b>Evaluating:</b> Making judgments based on criteria and standards through checking and critiquing.	Judges the best technique for propagating plants based upon a variety of choices.	Judges a class of market steers for best conformation.	Explains and justifies budget for SAE project.
<b>Analyzing:</b> Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.	Troubleshoots a small engine problem by using logical thinking.	Recognizes improper technique for welding in an agricultural mechanics contest.	Studies the best method for accomplishing an assigned task in a Placement SAE.
<b>Applying:</b> Carrying out or using a procedure through executing, or implementing.	Uses knowledge of soil when interpreting a soil sample.	Demonstrates the proper procedure for handling a firearm during a hunter's safety competition.	Uses a calibration table to calculate fertilizer requirements for an Entrepreneurship SAE in landscaping.
<b>Understanding:</b> Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.	Explains the proper procedure for handling pesticide chemicals.	Explains proper way to conduct a meeting according to Parliamentary Procedure.	Explains to a judge why a particular step was taken with a Experimental SAE.
<b>Remembering:</b> Retrieving, recognizing, and recalling relevant knowledge from long-term memory.	Remembering the three main nutrients in fertilizer.	Recites the FFA Creed	Recalls the correct amount of vaccine to give an animal as a part of a Entrepreneurship SAE in Livestock.

Table 1. The Agricultural Education Cognitive Domain

ous techniques and mechanisms in order to ensure high-level scholarship attainment. The global agricultural industry of today will continue to demand a student from America's public schools who is equipped with the knowledge, skills and dispositions to navigate the industry through turbulent economic, social and political waters. In analyzing the classic agricultural education program model, the authors of this manuscript can say with confidence

to the outstanding retired agricultural educator from eastern North Carolina that agricultural education is still moving forward with its mission of preparing students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.

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<i>Category</i>	<i>Instruction</i>	<i>FFA</i>	<i>SAE</i>
Receiving Phenomena: Awareness, willingness to hear, selected attention.	Becomes aware of a new technique for conducting micro plant propagation.	Identifies ethical procedure during a Career Development Event.	Listens to needs of customer in relation Entrepreneurship SAE concerning landscaping.
Responding to Phenomena: Active participation on the part of the learners. Attends and reacts to a particular phenomenon. (motivation).	Participates in a class discussion regarding bio-fuels.	Provides reasons for a certain placement of dairy cows during a Dairy CDE.	Practices proper laboratory safety techniques during an Experimental SAE.
Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior.	Demonstrates awareness of different multicultural practices in Global agriculture.	Demonstrates tact when discussing controversial issues during and Extemporaneous Public Speaking CDE	Shares beliefs about conservation techniques with others in community in relation to an Improvement SAE.
Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system.	Understands the ethical concerns when doing agricultural research for a class project.	Prepares the FFA POA in alignment with the schools established procedures for student organizations.	Prepares a work plan to accomplish task in timely manner.
Internalizing values (characterization): Has a value system that controls their behavior.	Uses an objective approach in solving group problems when completing an agriculture project.	Displays a sense of teamwork during Parliamentary Procedure CDE.	Demonstrates ethical practice when bidding on a contract for an Entrepreneurship SAE.

Table 2. The Agricultural Ed. Affective Domain (above) Table 3. The Agricultural Ed. Psychomotor Domain (below)

<i>Category</i>	<i>Instruction</i>	<i>FFA</i>	<i>SAE</i>
Perception: The ability to use sensory cues to guide motor activity.	Adjust temperature on welder based upon observation.	Distinguishes the correct technique for handling an animal based upon the animal's behavior.	Modifies the carburetor on a lawn mower based on the sound of the engine during an Improvement SAE concerning landscaping.
Set: Readiness to act. It includes mental, physical, and emotional sets.	Volunteers to demonstrate a planting technique in class.	Display's a desire to compete in a particular CDE based upon interest.	Demonstrates motivation to learn new task during Placement SAE.
Guided Response: The early stages in learning a complex skill that includes imitation and trial and error.	Follows instructions in building an agricultural storage shed.	Demonstrates procedure for Sawtimber Estimation during a Forestry CDE after being shown in class.	Responds to hand signals of a coworker when driving a forklift in a Placement SAE.
Mechanism: This is the intermediate stage in learning a complex skill.	Demonstrates proper way to drive a tractor during an agricultural mechanics course.	Displays appropriate skill level in developing a floral arrangement in the Floriculture CDE.	Repairs a leaking gas line on a tractor as apart of an Entrepreneurship SAE in landscaping.
Complex Overt Response: Skillful performance of motor acts involving complex movement patterns.	Displays competence when mixing a combination of chemicals.	Demonstrates the proper procedure for judging soil consistency during a Land Judging CDE.	Uses a computer to record complex calculations as apart of a Research SAE concerning fertilizer.
Adaptation: Skills well developed & the individual can modify movement patterns to fit special requirements.	Modifies an engine for another purpose in an effective manner.	Competes in an Extemporaneous Public Speaking CDE.	Revises the business records for an Entrepreneurship SAE by using a new accounting software.
Origination: Creating new movement patterns to fit a particular situation or specific problem.	Creates a new way of calibrating an agricultural machine.	Creates a new service learning project for Improvement SAE.	Creates a new way of fertilizing begonias as a result of a Research SAE.

*Continued on page 17*



# Is Ag Ed Really the Premier Educational Delivery Model?

by James Knight

The largest portion of the brain is the covering on the top: a quarter-inch thick blanket called the cerebral cortex. The cerebral cortex of each hemisphere of the brain is divided into four lobes. The occipital lobe at the back controls vision. Forward from the occipital lobe is the parietal lobe which regulates touch, pain and other body senses, and our perception of our body's location relative to the environment. The parietal lobe is also important for directing our attention to what's most important in our surroundings. Above our ears is the temporal lobe, which lets us hear and understand speech and helps us remember what we've heard. It also controls our ability to recognize faces and do other complex visual tasks. The frontal lobe is the part of the brain that sets goals and plans how to reach them. It's where our creativity lies, and it's critical for temporary memories (Eshel, 2007).

Deep inside the brain is the amygdala and hippocampus. The amygdala is in charge of our emotions, especially fear and anger. It helps us escape from danger or attack whatever is threatening us. Meanwhile, the hippocampus stores facts and transfers them to long-term memory (Eshel, 2007).

This may seem an unusual way to begin this article but I would suggest that this information is fundamental to the position that the Agricultural Education model is

the premier educational delivery system. Research in a number of fields like neuroscience has provided some insights into how people

*...we have historically been much more learner centered in our efforts than perhaps many other fields of education. We have generally seen content as the vehicle to apply our learning...*

learn that heretofore were assumed by many in Agricultural Education but not necessarily valued by others outside our profession. In effect, the research has found that the more parts of the brain we use in any given circumstance, the better we are able to learn. We have philosophically been committed to such ideas as the Problem Solving Approach to teaching and learning. The need to have students become motivated to learn something and to be physically, as well as intellectually engaged, have been at the core of our instructional efforts.

The early writers and thinkers in Agricultural Education were heavily influenced by John Dewey.

The pragmatism of his approach to teaching and learning seems to have resonated with those early builders of our programs, and so we have philosophically been driven by the need to connect with students in as many ways as possible. Thus, we have historically been much more learner centered in our efforts than perhaps many other fields in education. We have generally seen content as the vehicle to apply our learning as opposed to being the end product itself. Now that the science of the brain is unfolding, we are learning that our philosophical roots have the support of science as well.

So, as we move from the classroom view to the program view, we find that as we connect students to their environment by utilizing tactics that engage them more broadly than just in the classroom



*John Dewey, perhaps most notable educational philosopher of the 20th century.*

Image courtesy of the Harvard University Archives





*Rufus Stimson, President of the University of Connecticut, 1901-1908*

and that help them find meaning in what it is they are learning, is much more likely to succeed. While we intuitively and philosophically have believed this, we now have the added presence of a body of scientific research on the brain that helps explain why this is so.

Major reform efforts that have been launched to improve education have, in large part, dismissed or marginalized these views. More recently, the reforms have not been responsive to the research findings in the cognitive fields of study because they are so driven by single measure outcomes. The Nation at Risk phenomenon, which launched the educational reform movement and, which is now embodied to a large extent in No Child Left Behind, continues to fall short of its promise. That is because the driving forces for those reforms are not based on good science but rather on political agendas and a narrow view of learning.

If we are going to truly improve education, it would seem that we need to begin with the end in mind. That is to say, we need to think about learning in a pervasive

way. What we have gleaned from the research about learning needs to become a part of any delivery system. Thus, we need to be considering three broad ideas as we teach and as we develop our programs. In effect those ideas are, “What to, How to, and Want to.” Because the Ag Ed model has been so much about teaching the “whole” student, it naturally lends itself to addressing these three notions. The historically significant Venn diagram of the three intersecting circles sets the stage for this kind of thinking. From a psychological perspective as we look at the diagram we can recognize that where all three circles intersect, we have the most powerful approach to learning. This is true at the classroom level as well as the program level. Thus, the model helps us to visually depict our philosophy and it also is reinforced by brain-based research.

The genius of the Agricultural Education program lies in its approach to teaching and learning. It is not because it is agriculture necessarily that makes the program exceptional, although the nature of the agricultural sciences lends themselves to be exploited by the model, but in the processes that the early founders proposed, tested and implemented. The work of people like Rufus Stimson and many others were driven largely by a philosophy that was focused on creating environments that engaged students with their learning intellectually, physically and emotionally. In other words, they were committed to the “whole” student, which, of course, is now supported not only by anecdotal data (our experiences and observations over time) but significant research on the physiology of the brain as well.

While the country reels to and fro trying to find answers to many educational questions, especially

as they relate to student achievement, the model to answer those questions exists and has been successful for a long period of time. The writings and works of people like W. F. Stewart, W. H. Lancelot, Bender, Warmbrod, Newcomb, and many others have repeatedly informed us about the importance of a more holistic approach to teaching and learning. More recently, the works of cognitive scientists like Patricia Wolfe, John Bransford, Neir Eshel, and John S. Brown, support that approach.

Is the Ag Ed approach the premier educational delivery model? From every level, it appears to me that the answer to this question is an unqualified YES!

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# The Reality of Being Premier

by Jack Elliot & Randi Nickels

**A**gricultural Education is the premier educational delivery system. It is a holistic approach to education that has been utilized since the early 1900's. It strives to reach all types of students and educate those students as a whole. This premier educational delivery system is able to educate the whole student through the practice of three required components, which are classroom, Supervised Agricultural Experiences, and FFA.

The first element of agricultural education is the classroom. The

classroom serves as the medium for establishing content and utilizing the cognitive domain. It is where students first learn academic concepts that they will later apply either within the classroom itself or through Supervised Agricultural Experiences and FFA. The employment of basic education is exercised and expanded upon within the classroom. The basic skills of reading, writing and mathematics are all needed in order to effectively utilize the content that is learned with the agricultural classroom.

Additionally, agricultural education has the science of agriculture to offer the basic academic areas. The

science of agriculture, also known as agriscience, is an alternative form of science. It offers students learning within an applied setting through relevant activities in order to reinforce academically learned concepts. The Arizona Agricultural Teachers' Association has developed the Arizona Agriscience Standards that are based on Arizona Science Standards and National Agriculture, Food, and Natural Resources Career Clusters. Each agriscience program is required by the state to teach these standards within their program; therefore, each agricultural program is teaching the Arizona Science Standards. This means that agriscience constitutes as a form of

## The Premier Educational Delivery System

<i>Delivery Efforts</i>	<i>Content</i>	<i>Application</i>	<i>Motivation</i>
Career & Technical Education	Technical Instruction (Classroom)	Experiential Development (Laboratory & Work Based Learning including educational home visits)	Personal & Leadership Development [Intra-curricular] (CTE Student Organization)
Domains of Learning	Cognitive	Psychomotor	Affective
7-Habits of Highly Effective People, Stephen R. Covey	Knowledge	Skill	Desire
Center for Occupational Research & Development (CORD)	Academics	Skill Building Hands-on	Character Building
National Governor's Association Educational Plan	Rigor	Relevance	Relationship
Academic Classes	Content Delivered	Oftentimes Not Applicable	Oftentimes Not Applicable

If retention of material and reaching all students is the educational purpose of our schools, then utilizing the most effective learning strategies is essential. Those strategies are found in Career and Technical Education: The Premier Educational Delivery System.

*\*\*Table developed by Jack Elliot and William "Buddy" Diemler.*

science within the state of Arizona.

Agricultural education is a higher form of general science. It applies the basic concepts of science to the real-world setting. It practices retention of theory through application within the classroom and/or the other two elements of agricultural education. The goal of this practice of theory and applications is to target all levels of cognition, lower- to upper-level thinking.

The Supervised Agricultural Experiences (SAEs) is the second component of agricultural education. It is the application of the content learned within the classroom and plays to the psychomotor domain of learning. It goes beyond what is learned in the classroom by letting students explore their interests, practicing what has been taught, and by building skills for career success. It is an opportunity for students to practice what they have been taught, learn independently, and bring back their experiences to the learning community.

SAE is an important part of Agricultural Education, because it is the experiential component. It allows the students to use the information learned within the classroom in their own guided practice. They have the ability to take their previous knowledge and interests to explore an area of agriculture further. It improves retention of content information by moving the students from the lower-level thinking to upper-level thinking. Also, it improves career skills through hands-on application and community ties by involvement/support.

The final ingredient of Agricultural Education is FFA. The mission of this student organization is to make a positive difference in the lives of

young people by developing their potential for premier leadership, personal growth, and career success through agricultural education. It requires students to utilize their knowledge and skills accumulated within the other two components of agricultural education to participate in professional growth opportunities and career development events. Also, it provides a platform for recognition of all the students' hard work and accomplishments within their agricultural education program. This portion of the premier educational system offers students an opportunity to develop their interpersonal and intrapersonal skills as well as employment of the affect domain of learning. It is a way for a student to develop as an overall person and build relationships. The ramifications of not including this holistic education system are not reaching all types of learners, lack of application, decrease independent learning, and decline in personal development. The principle of agricultural education is to help students discover their personal interests and capitalize on their intelligences. The basic education system works primarily with visual and auditory learners, but there are eight multiple intelligences. Agricultural education reaches all of these intelligences. It helps students practice retention of their knowledge through practical applications. Agricultural education encourages students to employ their knowledge through student-guided application, where the instructor serves as only a facilitator. Lastly, this education system promotes self-discovery and career exploration to aid students in realizing their potential and interests.

The instructional program of agricultural education embraces all the areas of intelligence and strives

to create an applied learning atmosphere to make better the teaching-learning process for all types of learners. It reaches all domains of learning through the three component model of classroom, SAE, and FFA. Additionally, it helps the students to develop as young individuals and acquire future career skills. It is a holistic approach which exposes students to instruction, application, personal growth, and leadership development. This type of approach encourages learning to do, doing to learn, and valuing what is learned. It is truly the premier educational delivery system.

Given that agricultural education is the premier educational delivery system, it is the solution for the inclusion of all types of learners and should be utilized within the secondary educational system. The Agricultural Business Management – Agriscience Curriculum Framework has been included at the end of this discussion to explain integration of agricultural education within the secondary setting. The framework provides the most viable option for the state of Arizona. The proposed plan is to implement the first year of the secondary student's experience in the agricultural education program under the class of Applied Biological Systems, which will serve as an option for a biology credit. The second year would be titled as Agriscience I and would count for a half credit of laboratory-based integrated science. The third year of the program would be titled as Agriscience II and would count as a half credit of laboratory-based integrated science. In addition, the components of SAE, FFA, and mechanics would be integrated throughout all three years of the program. This proposed plan would ensure that every student within the program receives a holistic education that is based on the highest levels of retention when context is introduced

*Continued on page 19*



# Agricultural Education *IS* the Premier Educational Delivery Model: *The Local Evidence is Conclusive*

By Walter S. Wesch

**A**t a faculty meeting last month, one of our English teachers asked me, “What is so special about your class? A lot of students who won’t do anything for me just love your class. What is so special about you?” My response:

*There is nothing special about me. What I teach, but most important **how** I teach it, is what makes the difference.*

Following this encounter, I thought to myself, what is special about agricultural education programs? Is agricultural education really the premier educational delivery model? As agriculture teachers, we have always believed that our way was the best way. I needed proof, but rather than review the research that I had already read and agreed with, I began to look for evidence within my own program.

## ***Immediate Relevance***

Frank came to me at lunch. He said, “You won’t believe it. We were fixing our horse trailer last Saturday and I was able to measure and cut the boards and they came out just right! My dad and my uncles were really impressed.” He

was one excited freshman. “Mr. Wesch, you are my hero,” added Frank. I said “Frank, you took skills you learned here at school and used them in real life. Who’s really the hero here?” “Yeah, I guess I am,” he said as he walked away.

AT this time we were two weeks into the wood construction unit in our Introduction to Agriculture class. Frank had already applied knowledge and skills learned in our program at home. He was proud and his parents were im-

pressed. Because Frank had experienced success in his world based upon something he learned at school, he was a more receptive student from that moment on.

Our students are able to take learning from the classroom and laboratory and put it to use in their immediate lives. SAE and FFA activities are vehicles for students to demonstrate and apply knowledge, skills and attitudes that will help to ensure their success in life. Students are more willing to learn when they can see the relevance



through immediate application of learning in real-life situations.

### ***Academics Come to Life***

On another occasion, my students and I were laying out our drip irrigation lines on the land lab for our summer vegetable crops. We used three tape measures to form a right triangle to set the lines perpendicular to the fence. After teaching the theory and modeling the activity with my Applied Biological Systems class, Delina said that the geometry teacher had taught her class something about that but she could never understand it. When I put the students into groups to lay out their own right triangle, Delina showed her group how to do it correctly. When I asked her how she was able to do it correctly when she hadn't learned how in Geometry, Delina replied that it was easy to learn when "you can see it and do it, and not just talk about it."

"See it and do it and not just talk about it." Students learn academics in agriculture classes for the very reason articulated by Delina. Our curricula have always included the teaching and reinforcement of academic standards, but it is the fact that we utilize a variety of teaching methods that allows students to gain academic skills, and in some cases, even to realize that they are doing so. We teach to multiple intelligences and are able to reach students of varying levels, because our teaching involves multiple senses. Students hear, feel, see, experience and articulate the learning.

### ***Rooted in Community***

I recently participated in an annual evaluation for another

Career and Technical Education (CTE) program on campus. One prominent advisory committee member stated that the program needed more visibility within our community. She said, "Everyone here knows about FFA and what they do, but they don't know about your program."

Dr. Floyd McCormick, retired Department Head of the Agricultural Education Department at the University of Arizona, always claimed that he could judge the effectiveness of an agriculture teacher by asking people at the local café or gas station if they knew who the agriculture teacher was. While this may not be an accurate gauge of effectiveness in larger communities, Dr. McCormick was making the point that for a teacher and a program to be effective, it must be visible within the community.

Not enough can be said about the importance of using local advisory committees to help find and utilize community connections. In the evaluation meeting described above, two advisory committee members gave the teacher both ideas and opportunities for her to utilize with her Career and Technical Student Organization to showcase them locally. All truly successful CTE programs have strong ties to and are visible within the community.

Our school district is facing an economic crisis, and as a result, is looking to cut expenses any way possible. Positions are being cut, activities are being eliminated and every expenditure is being scrutinized. As a result, I was worried about my extended contract and FFA stipend for the upcoming year. At the recent governing board meeting, they both passed unanimously. This was not because the board liked me; it was the result of our agriculture pro-

gram demonstrating that these expenditures benefited students. Why did the governing board believe these program components had value in an era of budget cutbacks? They saw the evidence in our community through FFA and SAE activities.

### ***Based on Sound Philosophy***

Career and Technical Education has proven over time to be highly effective in promoting student achievement among all groups of students. Agricultural education, however, stands apart from and above the rest of CTE for one reason: We have a program philosophy that we demonstrate through our delivery system of technical instruction, experiential learning through SAE, and leadership and personal development through FFA.

While serving on state and regional CTE strategic planning committees during the past few years, it became clear to me that these program components that I deemed essential were felt by many CTE stakeholders, including some in state CTE leadership, to be merely desirable. Not surprisingly, many local CTE programs outside of agricultural education do not include all three essential components. For a program to be a true Career and Technical Education program, it must incorporate technical instruction, experiential learning, and leadership and personal development. In agricultural education, we believe this and our programs reflect that philosophy.

We are not the best educational delivery system merely because we believe it to be so. We are the best because the methods we employ, within the system we have cre-

ated, benefits students of varying abilities, situations and aspirations.

Our students not only gain technical knowledge and skills for employment, but also acquire both academic skills and attitudes necessary to be successful in life.

## THEME ARTICLE

# FFA Alumni: A Tool for Enhancing the Premier Model of Educational Delivery

by John C. Ewing & Kristina L. Watson



*Walt Wesch is an agriscience teacher at Baboquivari High School in Sells, Arizona. He is also an active member of the Arizona Agriculture Teachers Association.*



There is little question, amongst those familiar with the system, that the agricultural education model is the premier way to educate students. By integrating both theory and practice into the curriculum, students are able to learn in ways best suited to their abilities. Indeed, unlike other curriculum models, students benefit from a well-rounded education where they ‘learn by doing.’ There are few other programs in mainstream education where students learn in the classroom and then apply it in a ‘real world’ setting. Whether students enjoy traditional classroom learning, laboratory opportunities, applying their lessons at a career development event or leadership development conference, or simply working one-on-one with an instructor through Supervised Agricultural Experience (SAE), the important thing is that they enjoy learning. With this in mind, it is understandable that these three components (classroom/laboratory instruction, FFA and SAE) have been promoted as a quality model of education. Several conceptual models (Pillack & Roberts, 2005; Retallick, 2003; Staller, 2001) have described the three components of agricultural education and how these compo-

nents work together. No matter which model one advocates, the key aspect of each model is the interconnectedness of the components. The overlap in instruction, FFA, and SAE gives many students the opportunity to experience agricultural content through various approaches. While the model provides a valuable education for students, instructors often struggle to find the time to implement these three components to the level that makes student learning as effective as possible. Even in multi-teacher departments, teachers are forced to decide on which area – or areas – to spend their time. Thus, certain areas may not receive any – or at best, minimal – attention in their program. No matter how good the conceptual model looks in theory, the model must be practical for it to be effective. A teacher who does not have time to implement the complete model cannot be effective or efficient in facilitating the efforts of the agricultural education program. This leads us to the following question: What can be done to most efficiently implement the current model of agricultural education? The answer may lie in utilizing any and all resources in a manner that will enhance this delivery model. One resource that should be consid-



ered and used by agricultural education programs is the FFA Alumni.

Teachers, especially new teachers, often feel overwhelmed with the pressure to provide learning opportunities in each of the three components. In fact, one of the most frequently cited reasons for a teacher leaving the profession is that the teacher feels overwhelmed. Across the nation, many agricultural education teachers report having an active Alumni affiliate as a key factor in mitigating potential burnout. A strong and active FFA Alumni affiliate can help to ease the outside commitments of teaching, bring more support to agricultural education programs, and give teachers more freedom to do what they do best – teach (National FFA Alumni Website, 2008). The FFA Alumni “... secure[s] the promise of FFA and agricultural education by creating an environment where people and communities can develop their potential for premier leadership, personal growth and career success (National FFA Alumni Manual, 2008, p. 2).” The Alumni can play a key role in partnering with teachers to develop a chapter’s agricultural education program, communicating with the school board and provide mentoring to students (National FFA Alumni Manual, 2008). Since the Alumni is open to anyone with an interest in supporting agricultural education, members have a diverse array of interests in not only agriculture but other areas as well. As a result, teachers can take advantage of the Alumni, by using members as a resource, particularly in areas that the teacher lacks expertise. For example, Alumni members could assist in teaching a class segment on agricultural politics (legislator), meats evaluation (local butcher), finance (banker) or animal health

(local veterinarian). This not only satisfies the needs of the teacher and students, but it also creates better cohesion between the community and the agriculture program.

Agricultural education teachers may fear starting an Alumni affiliate because they assume it will mean more work. In a properly functioning Alumni affiliate, this should not be the case. After the initial set up, the Alumni affiliate should run itself with the guidance of the local agricultural education instructor. The instructor shares areas of need and the Alumni officers are there to guide the other members through the process and make a plan for a way to best help the local instructor with classroom/laboratory instruction, FFA, and SAE. Starting a local FFA Alumni affiliate requires that you have at least ten members that have paid National FFA Alumni dues. Common sources of membership are parents, former students, members of the Agricultural Advisory Board, school officials, and faculty. The key to finding members is remembering that the only criteria for membership is a willingness to support agricultural education (past membership in FFA is not a prerequisite). Once a membership base has been formed, the affiliate must elect officers and adopt a constitution and bylaws (samples can be found at [www.ffa.org/alumni](http://www.ffa.org/alumni)). When completed, the slate of officers, constitution, bylaws, roster and application for local charter should be submitted to the state FFA Alumni Office, or if there is no state organization, to the National FFA Alumni Office (National FFA Alumni Website, 2008). Information about starting an affiliate is available at [www.ffa.org/alumni/](http://www.ffa.org/alumni/). Fortunately, the National FFA Alumni and state Alumni Associations, are willing and able

to work with advisors interested in setting up an Alumni affiliate. The FFA Alumni can be an effective tool in helping make the already strong educational model of agricultural education more effective, while removing some of the pressure from the instructor in the local program. The question becomes: How can I use this information to make our local program better? Establishing an Alumni affiliate is a worthwhile endeavor for agriculture teachers. If you already have an Alumni affiliate established, this article can serve as a guide to better utilize your Alumni affiliate. Look for ways to involve Alumni members – fundraising, community service, public relations, advocacy, classroom instruction, judging and chaperoning (National FFA Alumni Manual, 2008) are just a few of the areas where the Alumni can be helpful.

Increasing curriculum requirements, growing opportunities for student involvement in FFA and SAE, and tighter program accountability has made time an incredibly important commodity for teachers. When agricultural educators try to do too much without help, they face burnout – something this industry cannot afford. An active Alumni affiliate is a key factor in continuing the effectiveness of the agricultural education model. Alumni members are passionate about agricultural education and are ready and willing to support the program, teacher and students. By giving the Alumni a central role in this three-component model, agricultural education will continue to be a premier education tool long into the future.

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## A New School Year--Same or Different?

In the spring and summer of 1977, I was looking for work... my first job teaching agriculture in fact. My husband had just taken a new position and we were relocating to Paris, Texas.

In those days you applied only to positions your Teacher Educator or the Area Supervisor advised. I had been sent to a small town within commuting distance of my husband's new job. The school had an opening in a two-teacher department.

On the day of my interview, my husband, Dan, went with me because we had plans to drive back to the Paris area and look for a place to live. It began with an interview with the principal. It went quite well I thought, and when it was over, I was introduced to the remaining veteran teacher--we'll call him "Red."

Red's job was to fill me in on the students and program and give me a driving tour of the facilities and 50 acre school farm. As we left the office, I stopped to tell Dan where I was going and Red invited him along.

We piled in the school pick-up and started down the road. As with most folks trying to impress others, I was

desperately thinking of intelligent questions to ask about everything I saw. *It is important to note here that I was sitting in the middle.* The upcoming scenario went something like this...

I turn to Red and comment on how nice the grain sorghum looks and ask when he expects to start harvest. He leans across me and gives his answer to Dan, following it with another question pointedly asked to Dan. I try again.

This time I ask how many students are in the program and if they all have viable SAE projects. Again, Red leans over and begins his dissertation on students to Dan, asking a variety of questions as he went.

This process went on for about 15 minutes before Dan just started to shut down. Limiting his responses to "yes" or "no" accompanied with furtive glances in my direction. I think he noticed a small stream of steam emitting from my ears.

Over the years, I have dealt with a variety of subtle discrimination issues, mostly I just ignore them and realize change comes slowly. However, I think it is important that as educators we keep our

eyes and ears open for issues revolving around subtle discrimination issues and the effects they have on our students.

For example, allowing jokes reflecting on one particular group

of people seems to be harmless enough on the surface. In Texas, that would generally be directed to "Aggies." Being good-natured for the most part, the graduates of Texas A & M go along with this in good humor. This is probably based on the fact they are confident in their education and their alma mater. However, when such humor is at the expense of Hispanic students, or blond students, or overweight students--just to name a few--subtle discrimination is beginning to rob those individuals of their self-esteem and confidence. It may not seem so to those not targeted, but seldom do people respond to jokes of that nature in a negative way. Usually we just choose to ignore them. Still the damage has been done.

I have always believed that one of the primary responsibilities of a classroom teacher was to provide a safe and inspiring environment for all students. Ridicule and negativism don't belong in that ideal classroom. I challenge each of you to become more observant of your classrooms and students and work to eliminate all forms of subtle discrimination. It benefits us all!



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**Author's Note:** Below please find two optional sidebars which can be used with the article:

- Membership Benefits
- Annual Membership
- \$10 a year (plus state/local dues)
- Annual subscription to New Visions newsletter
- Annual subscription to New Horizons magazine for only \$2
- Life Membership
- 150 one-time payment
- Life membership card and certificate
- Life subscription to the New Visions newsletter and the New Horizons magazine

**Alumni in Four Easy Steps**

- Find 10 members who have paid National FFA Alumni member dues
- Adopt a constitution and by-laws
- Elect officers
- Submit the above, plus the Application for Local Charter to your state Alumni association.



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*Continued from page 7*

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## Ag Ed IS the Premier Educational Delivery Model

By Dale Crabtree

Wow, what a question to ponder! When asked if I would be willing to share my thoughts on this subject, I was honored, but asked, “Why me? I have been out of the classroom for almost 12 years now.” John’s response to me was, “Actually, you are just the person to write this article, because you have a perspective that few others have.” That thought had not crossed my mind. I hope, as I share my thoughts, that I do not let him down.

As I previously stated, it has been 12 years this May since I was last in the classroom as a local agricultural education instructor and FFA advisor. For the past 12 years, I have been employed by the National FFA Organization performing a variety of responsibilities. Currently, I am the director for the Convention, Awards, Recognition and Events Management division. I had the wonderful privilege of teaching students for 18 years in the southwestern corner of Arizona. At my school, our program focused on Agriculture Business Management. And, even though the program was in the heart of production agriculture, the delivery model that I implemented gave me so much more to offer than just a single component of agriculture. As teachers, a critical key to our success can be whether we capitalize on all the resources we have available. What other integrated program in today’s school system offers the ability to infuse academic, technical training and life skills all in the same formal setting, day in and day out?



From the very first day a student enters into an agricultural education classroom, they are presented with the chance to learn in so many different ways, through so many different avenues of delivery and content. The opportunities today far surpass those that I had available to work with while I was in the classroom. If the right chance presented itself for me to return to the classroom, I would do so in a heart beat. I would make sure to capitalize on everything today that allows agricultural education to be the premier educational delivery system. Agricultural education today is on the brink of approving course content/curriculum standards that will be cross-walked to national academic standards. Infusing academic skills into our programs is a prime example of how agricultural edu-

cation is providing for – and proving that—it is the premier delivery system. A number of you would say this is not new to agricultural education; lots of us have been doing this for years. I would agree. The major difference is that today it is no longer an option. It is a necessity. With “No Child Left Behind,” each and every program must be capitalizing on the integration of math, science and language arts into every lesson in every classroom.

Because graduation requirements have increased in many states, it is more important than ever that we validate that our programs are teaching academics. Integration is vital. Those programs that have mastered this integration have been able to achieve dizzying heights:

- Agriculture courses being accepted as lab science credit

- Agriculture courses fulfilling economic requirements for high school graduation
  - Acceptance by post secondary institutes as entrance requirements for admission.
- We must capitalize on doing something that we do best--teaching academics through career and technical education.

Another component in our premier delivery system is providing life skill lessons. Today's business and industry partners share with us that their new employees must have skills that will allow them to interface and achieve in a team environment from the very beginning of their employment. These life skills are crucial to not only the success of the employee, but the organizations that hire them. Today's agricultural education programs have a built-in delivery system to address this need--**LifeKnowledge**. **LifeKnowledge** supplies teachers with the resources and tools to help ensure that leadership development within agricultural education does not just occur in the FFA circle of the agricultural education model. The **LifeKnowledge** materials can be easily applied to teach the essential leadership, personal growth and career skills as a part of the Classroom / Lab experience, or to support growth within a Supervised Agricultural Experiences (SAE) or to enhance essential skills development through FFA activities and events. The utilization of **LifeKnowledge** will help to guarantee that all students enrolled in agricultural education have an opportunity to realize that leadership development is not just an event but a series of vital experiences that can be taught and learned in all aspects of agricultural education.

The one component of agricultural education that has held strong from

our beginning, the one that showcases us as a premier delivery system is experiential learning, our SAE programs. The big change that has transpired since I left the classroom is the numerous means whereby experiential learning can be implemented. Long gone are the days where either being involved in producing for yourself or working for someone else was the only means of experiential learning. Today's agricultural education programs allow for entrepreneurial experiences, placement opportunities, research ventures and a host of other learning avenues. The needs of the agricultural education student today have pushed our delivery system to a new level, one that is filled with excitement and numerous opportunities. I hope that I have been able to share some perspective as to why I believe agricultural education really is the premier educational delivery model in today's school systems. We have always been known as a profession on the leading edge of providing the model for others to follow. By using every resource that is at our disposal, we will continue to provide the direction that will lead education into the 21st Century.



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to students before content. This model is illustrated by placing the 3 R's of the premier educational delivery system in this order: relevance, rigor and relationship. Agricultural education ensures that every student in every classroom will successfully learn and preserve the knowledge that has been presented to them.



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# Does the Public Really Know What We Do in Agricultural Education?

By Greg Thompson & Kristina Haug

For decades, public misperceptions of agricultural education have resulted in a program that is misunderstood and undervalued as the premier educational model. Many times, we are asked, “What do you teach in agricultural education programs?” Most people think we teach how to milk cows or how to farm. Agriculture affects all people, and its role in the economy, globalization, and healthy produc-

plain what it is that we teach and how we teach. Within our profession, we say agricultural education is an effective delivery system for students to grasp concepts and gain experiences so often overlooked in secondary education. Nonetheless, the general public is often unfamiliar with the specifics of our program that provides the real world application to spark student interest through relevant and rigorous instruction. In 2000, Tom Kapostasy, Director of Business and Information Ser-

we teach in agricultural education? We teach academic skills, career skills, technical skills and leadership or life skills. How do we teach all of this knowledge and skills in our program? Through proven, time-tested instructional, FFA, and Supervised Agricultural Experience programs, agricultural education in public schools offers great opportunities for students. A totally integrated educational model, helps us to improve graduation rates and enhance real-world applications.

Figure 1. Model

## Agricultural Education Model

*What We Teach*

		Knowledge			Leadership/ Life Skills
		Academic	Technical	Career	
<i>How We Teach</i>	Classroom/ Laboratory				
	SAE				
	FFA				

Note: The darker the shading, the more intense the strength of learning the “what” via the “how”.

tive lifestyles depends upon educating people in and about agriculture. We know the agricultural education model is a premier delivery system in our schools, but how do we ex-

periences, and Bernie Staller, past CEO of the National FFA Organization, developed a model to help us articulate our premier educational delivery system (Figure 1). What do

### *Academic Skills*

Within many core classes such as English composition, algebra, and biology, students often find it dif-





*Photo courtesy University of Arizona*

difficult to find the content relevant. Without relevance, many concepts are superficial in nature and soon forgotten. Agriculture provides the context to link core academic subjects to application. Learning through agricultural education becomes relevant, applicable, interesting, and gives students the opportunity to apply academic knowledge to solve real world problems. This is accomplished through classroom and laboratory instruction along with the ability to apply important concepts through SAE and FFA. Instruction in agriculture helps students see the relevance of their academic subjects and meet academic standards as they learn and experience through the use of ac-

tual living systems. Academic skills are integrated into “what we teach” as students use critical thinking, communication skills, leadership, scientific method, mathematics, science, social sciences and other subjects to examine the world around them in the context of agriculture. Concepts in biology are applied in animal agriculture in learning of the physiological components in digestion to ensure that feeds are as efficient as possible in production. Chemistry is applied in the study of soils and how cations are exchanged within soil particles to create productive environments for plant survival. Ecology and Environmental Sciences are applied in

the study of rangeland resources and watershed enhancement. Academic achievement is the goal; agriculture is the context that provides the relevance and rigor for students to meet that goal.

### ***Technical skills***

Once students have taken ownership of their learning, the agricultural education delivery system provides them with the ability to use knowledge through skill development. Through experiential learning, students take what they learn in the classroom and apply the skills in authentic settings. Supervised Agricultural Experience Programs place students in real life situations making real world decisions. Skills acquired in their SAE offer experiential, individu-

alized learning and the ability for students to apply knowledge through cognitive, kinesthetic, and affective domains. Having implemented knowledge and skills in situations that provide immediate feedback, students are better prepared to meet industry standards and thrive in competitive job markets. John Dewey said, “All genuine education comes about through experience.” SAE programs offer experiences for genuine learning.

### ***Career Skills***

To further clarify workforce needs, the SCANS (Secretaries Commission on Achieving Necessary Skills) report published by the United States Department of Labor in 1990 identified skills required by employees to be successful in business and industry. Critical thinking, decision making, and personal management are all important skills identified in the SCANS report that students learn first hand through SAE programs. Interactions with individuals who play key roles within various fields and professions, allow students to realize the vital importance of making decisions based upon outcomes and consequences. At the same time, great teachers teach important career skills within their classrooms and laboratories, while FFA activities and events help students make the connection between SAE and instruction.

### ***Leadership/Life Skills***

Within our constantly changing, high-tech world, employers are placing significant value on leadership skills. Students need to

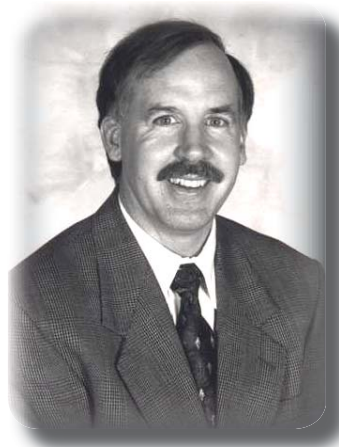
learn how to be part of a team, to collaborate, communicate, organize, and develop interpersonal skills necessary to be successful professionals in today's dynamic careers. Agricultural issues make national headlines on a daily basis. Each issue that arises, requires individuals to resolve the problem before it becomes a crisis. These roles require knowledge of the issue, collaboration with key experts and leadership to facilitate change or resolutions. The FFA offers opportunities for students to make the connection between career skills, technical skills, and academic skills through an array of opportunities by developing public speaking skills, working collaboratively towards mastery of specific Career Development Events and gaining an in-depth understanding of service learning. Working closely with partners of the FFA, provides opportunities based upon individual growth and leadership. Students are able to see how their role in the school and community can make a huge difference in building relationships and leading their peers towards successful resolutions within a dynamic future.

### *Conclusion*

As the Department of Education constantly works to improve student competency levels within primary and secondary education, an awareness of the effectiveness of the agricultural education delivery system is evident through the academic, technical, career and leadership skills that are incorporated into agricultural education. Whether it is SCANS, No Child Left Behind, Perkins or state reform measures, agricultural education assists students, programs, schools, and states in addressing educational reform. In Oregon, agriculture teachers use the model to articulate the "what" and "how" we teach impor-

tant knowledge and skills to produce high quality graduates who can compete in a global society.

Agricultural education is a systematic and systemic delivery system that provides students with every opportunity to gain the necessary elements of success within life, beginning within a sound educational environment. We must clearly articulate that a totally integrated program of classroom/laboratory instruction, experiential learning (SAE) and leadership development (FFA) provides a superior educational delivery system by offering academic, career, technical, and leadership skills for all of our students. Removing one of the educational components in an agricultural education program will degrade the quality and educational opportunities. The Vinn diagram, affectionately called the "three circles" helps to articulate the integral nature of an agricultural education program. However, the "what we teach" and how we teach" diagram helps us to clearly explain and understand the importance of the integral nature of an agricultural education program. We all know the inherent value to what we teach in agricultural education and how we teach. Now, we need to clearly articulate the effectiveness of this premier delivery system. The future of agricultural education is sustained through an integrated program that provides all students with opportunities to grow, contribute and prosper in a world that will be defined by actions not words. The future of agricultural education programs is upheld through an integrated program that provides all students with opportunities to grow, prosper, and learn in a dynamic educational delivery system.



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"The fact that we don't have *all* the answers does not mean that we have none. We know enough things for sure to produce huge surpluses of wheat, and send nearly all children to school. we don't know for sure what we should teach and how to teach it.

The good old days are now."

~Milton Caniff

# The Agricultural Education Model: A Personal Perspective

By Jay Jackman

**I**s agricultural education really the premiere educational delivery model?

I am pleased to have the opportunity to respond to this question with my personal perspective. I could answer “yes” and just end there ... but perhaps I should elaborate a bit.

On the other hand, I’m reminded of a scene in *Risky Business*, a movie that has become something of a cult classic for my generation, in which Tom Cruise’s character asked a question to Rebecca De Mornay’s character. The Cruise character specified that the answer was to be yes, no, or maybe; the De Mornay character answered “yes, no, maybe!” I know some of you recall this scene in the movie. So, an alternative answer to the question of the day ... is agricultural education really the premiere educational delivery model? ... could be yes, no, or maybe. Personally, I’m going to stick with “yes” but I do want to continue to qualify my response.

I am a product of agricultural education. In 1975, I enrolled in agricultural education as a freshman at Park City Junior High School in Park City, Kentucky. I had three more years of high school agricultural education at Barren County High School in Glasgow, Kentucky. My agriculture teachers were Jewell Colliver, Jerry Greer,

James Bailey, Frank Rowland, and Keith Weaver. Mr. Colliver is now deceased; the other four have retired from teaching, but they continue to be active in the community.

My agriculture teachers were among the greatest teachers who have ever set foot in an agriculture classroom. Other than my mother and father, my agriculture teachers were the most influential persons in my developmental years. What made my agriculture teachers so great? It was their commitment to the agricultural education model that made them great. They were excellent classroom/laboratory teachers, first and foremost. But with them teaching didn’t end in the classroom or laboratory. You see, I had other great teachers in my high school, such as Helen Russell, advanced American history. Mrs. Russell could make American History come to life for students inside that classroom ... and she helped me “test out” of some of my college history requirements. But, with my agriculture teachers, effective teaching happened way beyond the classroom, shop, or outdoor laboratory.

My agriculture teachers understood fully how to supplement instruction to enhance student achievement with supervised agriculture experience (SAE) programs for every student ... please notice that I wrote EVERY student. Further, my agriculture teachers understood

fully how to use FFA at the local level to showcase the accomplishments of our agricultural education students and program and to motivate every student for career success and personal growth ... please note that I wrote LOCAL LEVEL and again EVERY student.

But that was 30+ years ago! Will classroom/laboratory instruction in agriculture, work-based learning for every student via SAE, and leadership development for every student via FFA still work today? I argue it will. However, innovations in the program model have been made since then ... and further innovations may be in order now.

I now will offer some personal comments on each aspect of the agricultural education model.

## ***Classroom/Laboratory Instruction***

Classroom/laboratory instruction ... yes, no, or maybe? Given the current state of agricultural education in our nation, this one could be classified as a maybe. Yet, the potential exists, and great progress is being made for this to be a huge **yes**. What I mean is there is always room for improvement in what we teach, how we teach, and who we teach. My agriculture teachers in the mid-to-late-1970s had their curriculum and their pedagogy down to pretty exact science. But, lo-



cal, regional, national, and indeed, global agriculture is different today. Likewise, schools are different today compared to decades ago and the expectations of agricultural education programs within schools are quite different today.

In some respects, I believe our curriculum has evolved to meet the recent advancements in the agriculture industry. In many local programs, we are teaching biotech applications, turf management, agricultural business/sales/marketing/merchandising, and many other post-farm gate aspects of the agricultural industry. Where it is appropriate, we need to teach production agriculture; however, where it doesn't meet a local need to teach traditional production agriculture, we need to be sure we are teaching what does, indeed, make sense locally. More than ever before, we need to be sure what we teach meets the needs of our local communities and helps to prepare our students for their futures, which brings me to the more contemporary issues that drive schools today ... academic achievement measured by test scores.

We need a great deal of work in getting our programs up-to-speed with the driving forces within local schools today including science, reading, and math instruction. Agricultural Education is the perfect venue within which to teach applied science and math, and perhaps reading ... and we need to be doing it in spirit and in truth. We cannot just claim to teach science and math ... we have to have positive indicators that show we are doing it. This means we need to be sure our students can make the connections between the applied science and math they learn in their agriculture classes and what they see on standardized tests. Whether we like it or not, stu-



*Jay Jackman as the 1979 Kentucky FFA State President*

dent achievement is going to be measured by standardized tests. So, we must have evidence that shows that students who participate in rigorous agriscience classes perform better on standardized science and math assessments than students who have not taken agriscience classes. It still will not be easy to “prove” a cause and effect relationship; however, the test scores would serve as positive indicators.

I caution you to not take too far what I'm saying. I'm not saying agriculture classes should become science and math classes and I'm not saying agriculture classes should necessarily replace science and math classes. I'm saying agriculture classes should supplement science and math classes. In many states now, agriscience classes are approved for science credit ... and this is fine as long as the science content is, indeed, being taught by teachers and learned by students. The science content must be taught in such a way that the stu-



*Students in greenhouse--2007  
Graphic courtesy of UA picture files 2007*

dents will recognize it on standardized tests because that's how student achievement is going to be measured.

**Who** we teach is important as well.

One of the amazing strengths of agricultural education is that it appeals to students of all ability ranges. We attract honor students, special needs students, and every type of student in between. This is a good thing! We all love having the high-ability students in class for many obvious reasons. However, most likely, they are going to be successful whether or not they are enrolled in agricultural education classes and whether or not they have good teachers. They are going to make it! It is the marginal students who really need our classes ... the ones who could, with positive experiences, have great careers, maybe go to college, or, without positive experiences, end up in trouble, perhaps enter the underground economy. We must continue to ensure that all types of students enter our programs. Some of the less academically talented students can tend to skew negatively average student achievement on standardized test scores ... but this is all the more reason why we need to show that students who participate in agriscience courses perform better on standardized tests than students who don't participate in agriscience courses. Students who don't perform well in traditional academic courses need our courses so they can learn the academic content in the applied context of agriculture (something they can connect with and learn from). Having students of all ability ranges in the same class presents challenges for the teacher; however, agriculture teachers have been successful at this for generations, and they will continue to be successful at this by using effective teaching strategies, including those which encourage students to learn from other students.

We have a long way to go in agricultural education toward attracting students who are members of underrepresented racial and ethnic groups. But, advancements in what we teach, specifically more empha-

sis on agriscience and agribusiness, may have a positive impact on our student diversity long-term.

### ***Supervised Agricultural Experience***

Supervised agricultural experience ... yes, no, or maybe? Given the numbers of agricultural education students nationwide who have SAE programs, it seems that this is a maybe, or perhaps even a no. Yet, when agriculture teachers are asked, they say SAE is very important. So, maybe it is, or can be, a yes after all. I think most of us believe that work-based learning outside the classroom under the supervision of the teacher is a tremendous educational opportunity in which every student should participate. Yet, ensuring every student has an SAE program is difficult. Designing and supervising SAEs is time consuming; many students don't have obvious opportunities for SAE (at least not for traditional SAEs); SAE supervision can cut into teachers' family or personal time. I believe doing SAE "right" for every student enrolled in agricultural education is the most challenging part of the agriculture teacher's assignment.

A possible solution for our SAE challenge is for teachers to be more open to breaking away from traditional SAEs for students. The important aspect of the SAE experience is for students to gain a positive work-based experiential learning opportunity outside the traditional classroom under the supervision of the teacher or other adult expert. Traditionally, many agricultural educators have tied SAEs to proficiency awards ... and this is great for many students. But, SAE opportunities that don't fit into a proficiency award

category are still just fine ... we don't have to be limited to allowing proficiency awards to drive SAEs. SAE is for all students, not just those students who are potential state or national proficiency award winners. If we truly value SAE, we must be more open to new and innovative types of SAEs, with the emphasis being on the student learning opportunity, even when it doesn't fit nicely into an award category.

### ***FFA***

FFA ... yes, no or maybe? I think we would all agree that FFA is an astounding yes. I think a local FFA chapter as a part of a complete agricultural education program in a local school is the greatest thing since they started sewing pockets on shirts! It is important for us to recognize, however, that FFA should be used to motivate students to learn and to ensure leadership development, personal growth, and career success for every student enrolled in agricultural education. FFA membership should not be an option for agricultural education students ... it is for all agricultural education students!

Still, we need to keep FFA in perspective. FFA should not be about filling trophy cases with state and national awards. It is tremendous for some students to earn the privilege of moving on to state and national level competitive events and convention participation. It is a marvelous experience for a student or a team of students to do well in a state or national proficiency award or CDE. I was fortunate to participate in some state and national events ... and these were positive life-changing experiences for me.

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

\*\*\***Inclusion and Diversity Issue**



# Themes *Continued...*

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But, the emphasis of FFA should be ensuring the success of every student at the local level ... we need to ensure positive life-changing experiences for all students at home, not just the ones who advance to higher level events. Local FFA events – local meetings, local competitive events, local parent/member events, local community service opportunities, and so on – that involve all students in the local program need to receive the most attention.

Further, FFA activities and events should showcase the local agricultural education curriculum. We hear a great deal about agriculture teacher burn-out ... about teachers who are so busy during school and after school hours that their personal life or family life suffers. I'm not suggesting that an agriculture teacher's job should be easy or that the agriculture teacher's day should always be a straight eight hours and then go home. Agriculture teachers are professionals and professionals work hard and sometimes they work extremely long hours. Yet, agriculture teachers need to maintain a balance between work and personal/family life.

One way to address the balance between work and personal life is to let the local FFA activities mirror the local agricultural education curriculum. That is, if a teacher is not teaching the content associated with a certain CDE, the FFA chapter should not have a team in that CDE. FFA CDE teams should come from the classes in which that specific content is taught; therefore, a tremendous amount of after school time should not be necessary for team preparation. We need to try to reduce teacher burn-out by reducing self-imposed and unrealistic expectations that we have to participate at state and national levels in every FFA event.

### ***Wrap-up***

So, where do I come down on the

question: "Is agricultural education really the premiere educational delivery model?" I say *yes!* But, we must continuously improve upon what we teach, how we teach, and who we teach.

Further, we must exist as a value-added component of the school. We should not, and cannot, exist as just another science class. Our programs cost too much (greenhouses, outdoor laboratories, extended contracts for teachers, and so on) to be just another science class. We have to show the value we add to the school and to student achievement. We can add value by supplementing instruction in applied science and math (and maybe someday reading). We can add value by providing experiential learning opportunities for all students. We can add value by enhancing leadership development, personal growth, and career success for all students. We can reach students who are not successful in traditional academic classes. We provide opportunities for high achievers to shine brightly.

Traditionally, we have thought of a quality agricultural education program to have equal balance between the three components of the agricultural education model. I tend to believe this is still ideal. However, the realities of the public school environment may force us to study this more and I'm sure this will be a topic of discussion for years to come.

Well, if you don't already know how the "yes, no, maybe" scenario played out in *Risky Business*, you'll have to rent the movie. But, as for me, my answer to agricultural education really being the premiere educational delivery model is "yes" ... but we have to work at it constantly to ensure the model remains effective.



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