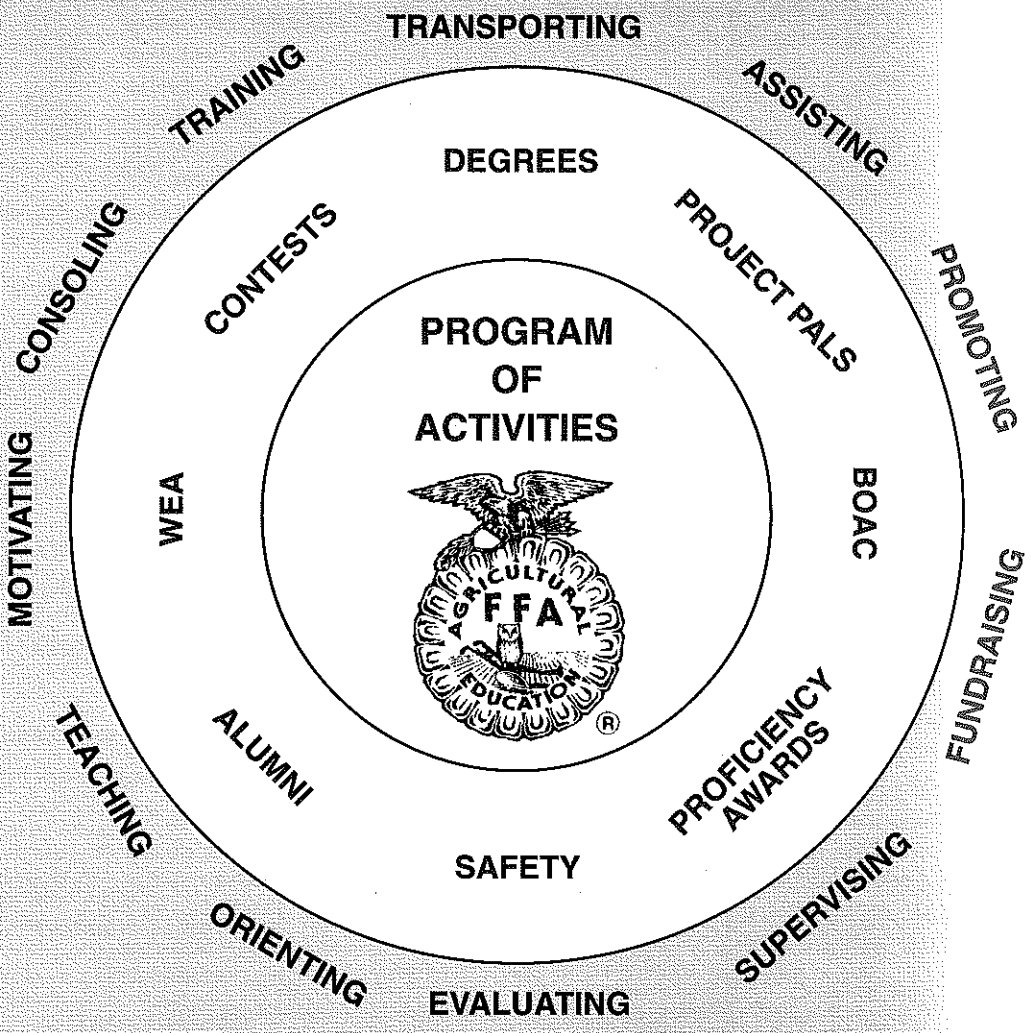
The
Agricultural Education
Magazine

August, 1992
Volume 65
Number 2



Advising FFA Chapters

THE
AGRICULTURAL EDUCATION
MAGAZINE

August, 1992 Volume 65 Number 2

Table of Contents

ARTICLE SUBMISSION

Articles and photographs should be submitted to the Editor, Regional Editors, or Special Editors. Items to be considered for publication should be submitted at least 90 days prior to the date of issue intended for the article or photograph. All submissions will be acknowledged by the Editor. No items are returned unless accompanied by a written request. Articles should be typed, double-spaced, and include information about the author(s). Two copies of articles should be submitted. A recent photograph should accompany an article unless one if one file with the Editor. Articles in THE MAGAZINE may be reproduced without permission.

PUBLICATION INFORMATION

THE AGRICULTURAL EDUCATION MAGAZINE (ISSM 7324677) is the monthly professional journal of agricultural education. The journal is published by THE AGRICULTURAL EDUCATION MAGAZINE, Inc., and is printed at M & D Printing, 616 Second Street, Henry, IL 61537.

Second-class postage paid at Mechanicsville, VA 23111; additional entry at Henry, IL 61537.

POSTMASTERS: Send Form 3579 to Glenn A. Anderson, Business Manager, 2441 Suzanne Rd., Mechanicsville, VA 23111.

SUBSCRIPTIONS

Subscription prices for THE AGRICULTURAL EDUCATION MAGAZINE are $7 per year. Foreign Subscriptions are $20 (U.S. Currency) per year for surface mail, and $40 (U.S. Currency) foreign airmail (except Canada). Student subscriptions in groups (one address) are $4 for eight issues. Single copies and back issues less than ten years old are available at $1 each ($2.00 for foreign mail). All back issues are available on microfilm from Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. In submitting subscription, designate new or renewal and address including ZIP code. Send all subscriptions and requests for hardcopy back issues to the Business Manager: Glenn A. Anderson, Business Manager, 1803 Rural Point Road, Mechanicsville, VA 23111. Publication No. 737246

Responsibilities Associated With Advising

BY JACQUELYN DEEDS
Dr. Deeds is Southern region editor and associate professor of agricultural and extension education at Mississippi State University.

Many of our teacher education programs require a class that has expressed objectives of preparing individuals in the mechanics of being youth organization advisors. There are also the often unexpressed, affective objectives that deal with values, integrity and professionalism.

On a recent final exam in a Youth Organizations in Agricultural and Extension Education class session, a question was raised that addressed this affective area, plus strategies for planning banquets, selecting fund raisers, and preparing teams and awards applications.

Students were asked to list what they believed to be the 10 most important duties and/or responsibilities of youth organization advisors. When the responses were tallied I was a bit surprised. I wondered if the responses were what the students believed enough to act upon or if they were just parroting what I had advocated when I climbed on my soap box from time to time. I think as advisors we can learn from their responses.

Be Professional

The most common responses could be grouped in the area of professionalism. Acting professionally or being a good role model topped the list of responsibilities. The students included such things as taking responsibility for supervising students when they are on 4activities and entrusted to your care.

Dressing appropriately was another item that made the list. Some shared my personal belief that if students are in official dress, the advisor should be expected to dress equally as well. How often would the picture of the winning team have been improved by removing the teacher in the ball cap or blue jeans?

Being on time and meeting deadlines was also high on the list of responsibilities. Comments from these undergraduates implied that students are penalized when advisors fail to submit required paperwork or applications on time. We probably have all been guilty of mailing important documents (other than our taxes) on the date they must be postmarked. You probably know people in your state who live close enough to the state department to drive their applications in after school on the due date. If we are to provide the example, what example are we setting?

Keeping Good Records

The second most frequent response given on the test was record keeping. The list included financial records of youth organization funds and an inventory of supplies and equipment that were purchased with those funds. The comment was something like, "I remember when my leader couldn't remember who she loaned the club's clippers to, so we never got them back." Records of membership and student involvement were also mentioned in this area to make sure students don't miss out on opportunities because their names are left off the membership roster by mistake.

Teaching Through the Organization

The third area indicated was the responsibility to teach. Teach? Yes, teach. They expressed the importance of not just taking students to contests, but preparing them for contests, such as teaching them how to fill out the score card, giving reasons, or doing the calculations required. Teaching leadership and responsibility were mentioned along with teaching morals and values.

Teachers should also teach students how to fill out award applications. When judging award applications at the national level it was distressing to discover that some applications had to be returned because the advisor did not sign them. What did the student learn when the advisor did not bother to write anything in the place for advisor's statement?

It is difficult to believe that proficiency applications were submitted on the national level with math and spelling errors, pages missing, and no supporting pictures or information. (I am pleased to report that 100% of the students knew that the ending inventory for 1989 was supposed to be the same value as the beginning inventory for 1990.) Maybe some of our students are not off the mark and are actually giving us a compliment when they call us the FFA teacher rather than the FFA advisor or agricultural education teacher.

(Continued on page 10)

Are You a Wiser Advisor?

BY MAX B. MCGHEE
Dr. McGhee is professor of agricultural education at the University of Florida.

"The advisor."
"Here by the owl."
"Why by the owl?"
"Because I don't give a hoot!"

No matter how facetious this adaptation of the opening ceremony may seem, advisors that want their FFA chapter to be "successful" must not give the impression that they don't give a hoot. This may seem obvious to the reader, but it has been my experience that the expression "assume nothing" should be the advisor's motto. We cannot assume that students will become FFA members simply because the opportunity is there. We cannot assume that a group of students interested in land judging will take the initiative on their own to prepare themselves for the land judging contest. We cannot assume that the program of activities will be developed by the members without guidance and advice from the advisor. Of course not!

Just as the "wise old owl" sits quietly in the tree and observes with large, saucer-like eyes for movements or sounds that indicate she should get ready to act, the **wiser advisor** must watch for signs that indicate that action (advice, counsel, direction, reinforcement, praise, enthusiasm) is needed for members' goals to be realized. The action taken by **wiser** advisors indicates they care (give a hoot) about the members and their organization.

Three factors that indicate to others that the advisor "gives a hoot" are: encouraging members, using instruction to stimulate member involvement in FFA, and being up-to-date in agriculture and FFA.

Encouraging Membership

Advisors that care about their chapter and its members encourage membership by taking advantage of resources such as motivational videos, instructional materials, and other promotional items available to them from the National FFA Center.

How much do you teach about FFA and its opportunities for member development and recognition? Do you just go through the important dates, make them memorize the creed without discussing its meaning, and then expect them to line up at the "Where do I sign up and pay my money?" booth? Would you be motivated to join if you were a student and heard your "pitch" about the advantages of membership? I would challenge you to think about that as you plan for a new school year. How can you better encourage your students to be members of the FFA?

Use Instruction to Stimulate Involvement

Becoming a member is but the first step. A **wiser advisor** who gives a hoot uses the instructional program to stimulate members to be active members. They make FFA truly **intra**-curricular by integrating and incorporating it with those other two components of a total program of agricultural education we all talk about — classroom/lab instruction and supervised agricultural experience. For example, the program of activities should not be developed only by the officers and advisor; it should be developed by all the members in a systematic process. For this process to be functional, all members must understand what a program of activities is and how it can be developed. Therefore, they must be taught and have relevant practice if we expect them to help develop the program of activities. If taught in an interesting, stimulating manner, students will be motivated to help plan the year's activities for **their** chapter — not the officers' or advisor's chapter.

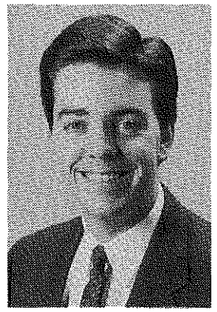
Keep Up-To-Date

FFA is in a new era. Changes in the awards programs, contests, governance structure, and emblem are but a few differences in just the last few years. **Wiser advisors** who give a hoot are aware of these changes by reading *FFA New Horizons* and *Making A Difference.* They also take advantage of inservice opportunities that are designed to keep them abreast of changes in the FFA and agriculture. They read research that deals with working with FFA and other youth groups for clues on being wiser and more effective advisors. They are actively involved in their professional organizations.

Are you an FFA advisor that actively encourages membership, uses instruction to stimulate active membership, and keeps current about FFA and agriculture? If so, you are equipped to be a **wiser advisor** who can help your chapter to be all that it can be. You

(Continued on page 10)

Here Come The Customers!



BY MARSHALL STEWART
Mr. Stewart is Team Leader, FFA Teacher Services at the National FFA Center.

The bell rings! And here they come. All shapes, sizes, colors, and backgrounds. Eager to talk and share their summer exploits and adventures, which are always growing bigger every time they are told. Yes friends, it's another chaotic opening day of school.

As the students move into Mr. Smith's classroom, It is evident that the feelings they have for this class are different from many of the other classes in which they are enrolled. For some reason most of the students actually seem to be glad to be here. It seems as though they see this class as fun. The tone of the conversation with the teacher as he stands by the door to welcome them is different. It's sincere, kind, honest, and warm. The students detect that this teacher is different, not only because he teaches agriculture and serves as the FFA advisor, but also because he genuinely cares about them as individuals.

Interestingly enough, Mr. Smith has a strong enrollment and 100% FFA membership. His classes are filled to capacity with more students wanting to get in than can be allowed. This is a great problem to have, since agriculture is an elective. One wonders if other required subject areas would have this same kind of enrollment success if they were forced to recruit students and be customer-driven like Mr. Smith has to do each year.

Thankfully, there are thousands of other outstanding, caring people, much like Mr. Smith, who serve as teachers in agriculture programs and as FFA advisors. The commitment they have to the young people they serve is extraordinary. This commitment, care, and concern for the students they serve is a major reason they are successful in getting students to enroll in their classes and join FFA.

Yes, a primary reason many students have chosen in the past and will continue to choose agricultural education is simply because they like the teacher and they perceive that the teacher likes them. An interesting, yet simple phenomenon, that is seen in thousands of programs across the nation.

Beyond the students' like and respect for their agriculture teacher, which is a primary ingredient in successful recruiting, there are a number of interesting approaches being taken to successfully recruit students into agriculture programs. However, all of these approaches are only successful long-term when there is a high quality, updated agriculture program being led and managed by the teacher.

Once a contemporary program led by an energetic, caring teacher is in place, a number of approaches can be taken to successfully attract and retain students in the program. One fundamental key that is becoming increasingly important in the recruitment of students is the ability to communicate in student terminology with familiar themes. The following ideas, in no specific order, are "real-life" innovative examples of how teachers across the nation are successfully recruiting students into their agriculture programs and FFA chapters.

1. **Undercover FFA.** This idea uses the concept of having FFA members conduct recruitment presentations for sixth, seventh, and eighth graders in non-FFA, school activity attire. A teacher would select a group of six to eight members who are also actively involved in other school activities and organizations that have high visibility in the school.
   On recruitment day, a teacher has a group of FFA members that include representatives of the football team, cheerleader squad, marching band, beta club, and other groups wear their full dress uniform for that activity to conduct the presentation. While wearing those clothes, the students talk about being active participants in FFA and why it is important to them. In effect, the teacher is positioning the FFA alongside other very popular and visible activities through the use of local, celebrity endorsers.
2. **Student Recruiters.** Not a new idea, but perhaps if given enough time and training this can prove successful. The teacher provides instruction on how to deal one-on-one with customers, just like one would in a business/sales environment. As an outgrowth of that instruction, the teacher challenges FFA members to replace themselves by using those fundamental sales techniques on their friends.
   Teachers may find it useful to offer incentives, prizes or recognition to create competitive interest and excitement. An additional thought is to turn this into a team activity. The beauty of this idea is that →

teachers, in effect, create a sales force of young people who can be immensely effective at selling the merits of an agriculture program and FFA chapter to their peers.

3. **Athletic Boosters.** Athletics are, without a doubt, a tremendous influence on students, schools and communities. An example of how to use the athletic craze to the program's advantage is found in a teacher who discovered she was inheriting a long-term feud between the athletic director and FFA advisor. This feud had almost destroyed the agriculture program because of students choosing athletics over agriculture. Recognizing that the feud had to end, the new teacher began to seek ways of building her program in spite of the past. She discovered the athletic program in her school did not have an in-school, athletic booster club. Seeing this void as an opportunity to change attitudes, she began having the FFA chapter create and put up posters that hyped athletic events throughout the school. For example, if her school's basketball team (e.g., the "Bulldogs") was about to play another school (e.g., the "Tigers"), she would have posters made that might read, "Go Bulldogs...Tank the Tigers!" Throughout the school these posters would appear several days before each athletic event with a line, in small type, at the bottom of each poster that read, "Sponsored by FFA." This was a simple idea that positioned the FFA chapter as a supporter and partner with athletics, rather than an opponent. Simply put, if you can't beat them, figure out how to use their strengths to your advantage.
4. **One-on-One.** Personal contact with students and parents can prove most beneficial in recruiting. Talking with students who choose not to initially enroll and finding why they do not can provide valuable information. Many times it is a lack of understanding. Failure to communicate the benefits of the agriculture program can quickly be cleared by talking.
   Students, not to mention their parents, are amazed and usually very supportive of teachers who show personal interest and take time to talk with and advise a student. **The mere fact that someone wants them can make the difference in their choice of courses.**
   Walking the halls during school breaks/lunches and getting to know as many of the prospective students as you can is an easy way to recruit. In many ways, when done through this method, recruitment becomes an everyday activity that naturally occurs as the teachers comes in contact with students. A final approach teachers may take is to write a short, follow-up letter to the student's home. This small token may be just the thing to seal the deal on that student prospect.
5. **Membership Perks.** Perks have a major controversy among today's government and business leaders. Perks, however, are also well understood by the students in today's classroom. Several "perk" ideas that have been used effectively to recruit include:
   a. **Membership cards** that have immediate benefit with a local business(es) have been used successfully in recruiting students. This concept may simply be a card that a local business, is willing to sponsor and provide a discount or free item to the FFA card-carrying student. Also, coupon books which encourage students to frequent local businesses for discount prices may be worthwhile. A natural outgrowth of this concept is that it gives the chapter a great opportunity to work with many local sponsors.
   b. **Field trips for FFA members only** continues to be an effective incentive for attracting students. Although many school systems have severely limited the number of field trips allowed per year, when possible this perk can be very useful.
   c. **Money back guarantees** are an effective means of intriguing students. Using this approach, the teacher breaks down the total FFA dues to include national, state, and local shares, and how the total dollar amount will be returned to local level activities.
   For example:

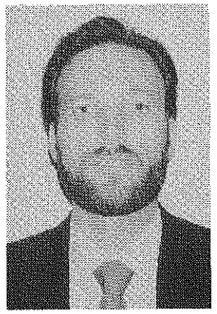
October Cookout	2.00
Field Trip	1.00
Christmas Party	2.00
FFA Banquet	3.00
Dance	2.00
Total FFA Dues	$10.00

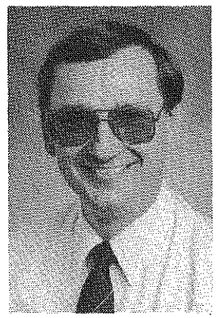
   Obviously the funds to conduct these activities must be found in an alternative source, such as a fundraiser. However, in this scenario all students can see potential benefits locally, which is essential from a student perspective.

Each of these recruitment ideas has been used effectively to increase enrollment and/or FFA membership by current agriculture instructors. Naturally, there are many other ideas that work, such as conducting an open

(Continued on page 8)

Is Your FFA Lost?





BY THOMAS MCCALL AND DANNY BARTLETT

Mr. McCall (top) is an assistant in agricultural education at the University of Florida and Mr. Bartlett is an agriculture teacher at LaFayette High School, Mayo, Florida.

If your FFA chapter could speak, would it say, "Where am I?" "Where am I going?" Or worse, would it say, "I'm lost!"

When you get in your car to go somewhere, you have in your mind where you want to go. If you have never been there before, or your destination is unknown to you, you probably will use a map to help you find your way. This will not only prevent you from becoming lost and not reaching your destination, but it will save you time and energy. FFA chapters also need a map to help them reach their destination — recognition as an active and successful chapter. The map used by FFA chapters is called the Program of Activities (POA).

Unlike a road map that you can find at service stations, an FFA road map must be developed by the chapter members with the guidance of the chapter advisor. The chapter members, led by the chapter officers, should plan activities that are meaningful to its membership as well as beneficial to the local community.

Most states require a current POA to be on file in the state FFA office before the chapter can be called a bona-fide and active chapter of the state association. The POA needs to be submitted at the beginning of the school year. Because this is a busy time, there is a tendency just to photocopy and send in last year's POA.

The idea of a POA is not to meet a requirement mandated by the state association, but rather to help the chapter develop a plan of action that will guide and direct the chapter through the wilderness of a busy school year.

The first step in the development of a POA is to educate your chapter officers about the goals and purposes of the POA.

The first step in the development of a POA is to educate your chapter officers about the goals and purposes of the POA. This is a good activity for the summer and can be a part of their leadership training. The chapter should have a copy of the *Program of Activities Handbook* and the filmstrip "Program of Activities — VP and the Modem Chapter."

These resources will help illustrate the process of POA development. A copy of the National Chapter Award (NCA) application should also be available. The officers need to understand the relationship between the POA and the NCA. Together, these two documents make up the planning and documentation of a chapter's activities. By being familiar with the NCA, the officers will see what activities are important and appropriate for a chapter to conduct and what records need to be kept during the year to accurately report the activities.

The next step is to have the officers review the last year's POA. Decide which activities worked well and deserve to be retained, and which activities should be deleted because they did not work well with the chapter. Have the officers begin to develop ideas for activities they can present to the POA committees when school starts. These ideas should be based upon past experiences with similar activities and requirements of the NCA.

Consideration should also be given to the chapter and agriculture department's strengths and weaknesses. If a chapter has a strong alumni association, the chapter would naturally want to include alumni activities in its POA to take advantage of this strength. On the other hand, if the alumni association is weak, the chapter should develop activities that would strengthen the alumni association and its involvement with the chapter.

Activities must be developed by the membership, not the advisor. The officers and committee chairmen, as well as the members, should be the ones who develop these activities. Who knows better what the youth of today like to do, what activities in which they will participate, than the youth themselves? With advice and guidance from the advisor, a POA will be developed that is educational, sound, and productive for meeting the needs of the FFA members.

Committee chairmen should be selected based upon their leadership ability, willingness to work unselfishly for the chapter, and their track record of chapter involvement. They should be selected by the officers and advisor during the summer so when school starts work can begin immediately.

Committee chairmen should have the authority to call a meeting of the committee whenever work needs to be done. Using the planning sheets developed by the National FFA Organization and included in the *Program of Activities Handbook,* a step-by- →

step process can be generated that will lead the chapter through its program of activities.

Once the POA is developed, the committee chairman's work is not done. With the assistance of the chapter vice president, each committee chairman should keep a calendar of activities so that planning activities in preparation for a major event will occur in a timely manner. Each month there will be activities happening that will need some prior preparation. During each monthly chapter meeting, committee chairmen should present a report on the current activities of their committee.

If everyone has done their jobs successfully, filling out the National Chapter Award application will be a simple matter of transferring information from committee reports to the appropriate sections on the application.

For each major activity conducted by the chapter, someone should be appointed to make a written record of the activity. This should obviously be the chapter reporter. However, because the reporter cannot always be present at all activities and events, the vice president or committee chairman should be sure that someone who is capable of writing a newspaper article and taking photographs is present. Good photographs are important for public relations and for completing the NCA and other FFA applications where photographs are required.

When an activity is completed, the committee responsible for conducting the activity should meet to review and evaluate the activity based on the goals of the chapter and the membership and community's responses. They should write recommendations for next year's committee work and prepare a report of the activity for the National Chapter Award application.

Preparing award applications such as the National Chapter Award and Proficiency Awards is much easier with the use of the microcomputer.
(Photo courtesy of David Spencer, Lecanto, Florida)

In the spring, the officers and committee chairmen together should complete the NCA application. If everyone has done their jobs successfully, filling out the National Chapter Award application will be a simple matter of transferring information from committee reports to the appropriate sections on the application.

Like road maps, POA's are only useful if they are used and followed. A traveler who first looks at a road map after being on the road for a few hours may find that he has been going in the wrong direction and will have to backtrack. A chapter that does not develop a POA early in the year and follow it may find that it, too, has to backtrack, or worse, never reach its destination. ■

Here Come The Customers!

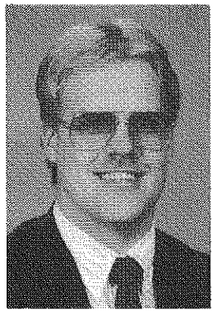
(Continued from Page 6)

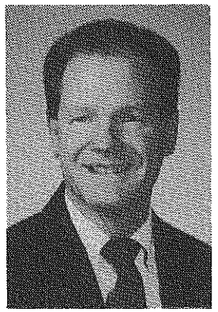
house, presenting Food for America programs and involving FFA Alumni. Each of these has tremendous value and can be used effectively to attract students and persuade those who influence the decisions of students. However, all of these ideas will not work in every program. The recruitment approach that is taken is still a decision that must be coordinated and led by the local teacher. **The most important factor in making that decision is knowing the customers in your school.** Tailor the program and use approaches that meet their needs, and students will make the right choice.

It has often been said that "the customer is always right." Maybe a better way to say it as it relates to agriculture programs is "the customer is always the customer." Students, who are the customers, do not always make the "right" decisions as they grow and mature. However, as leaders in agricultural education, it is our responsibility to continually seek new and innovative ways to better serve their needs so that more of them will say **yes** to our program. The challenge is great, but so are the program and people who lead it. Together we will, **"Make it happen!"**

Note: The ideas expressed in this article are but a few of the many exciting approaches being taken by the real leaders in agricultural education — teachers. Special thanks to the thousands of teachers who have shared recruitment ideas during FFA membership development workshops sponsored by the Monsanto Agricultural Company as a special project of the National FFA Foundation. If you have ideas that you would like to share with other teachers, please contact the author at the National FFA Center. ■

FFA — Fulfilling a Purpose





BY DAVID KRUEGER AND CHARLES SNYDER
Mr. Krueger (top) is executive director of the Michigan FFA Foundation and Mr. Snyder is projects consultant with the Michigan FFA Association.

When reading the aims and purposes of the National FFA Organization, the specific purpose that remains in the forefront is to develop competent and assertive agricultural leadership. Concomitantly, the agricultural industry is seeking individuals possessing these leadership skills. Is agricultural education still making room in its ever-changing curriculum for FFA leadership development? Have we begun limiting our FFA activities because of a preconceived notion that new curricula (agriscience) limit our opportunities?

"The process of educating our youth for citizenship in schools is not confined to books, curriculum, and the class; schools must teach by example the shared values of a civilized social order. Consciously or otherwise, teachers — and indeed the older students — demonstrate the appropriate form of civil discourse and political expression by their conduct and deportment in and out of class. Inescapably, like parents, they are role models."
— Chief Justice Warren E. Burger

The FFA must be used in our instructional program as a motivating force to improve our changing curricula. No matter how much our curricula change, there is still a need for human relations skills. In fact, employers want a new kind of worker with a broad set of workplace skills — or at least a strong foundation in the basics that will facilitate learning on the job (Carnevale, 1988).

The educational basics of communication, problem solving, assessing information, and global awareness can all be taught through FFA related activities. High self-esteem, high expectations, responsibility, persistence, and teamwork are qualities sought by employers and developed through the FFA. FFA activities can be incorporated into the curriculum, providing an excellent vehicle for learning interpersonal skills required by employers.

FFA Integration in Michigan

As curriculums change in Michigan, science and technology begin to transform our classes and laboratories. Thus, FFA has an opportunity to meet the instructional challenges from this new curricular emphasis.

To meet these challenges, Michigan agriscience education programs are undergoing a radical change from a production agriculture to an agriscience/agribusiness curriculum. This change is reflected by the number of state FFA degree applications that represent agriscience/agribusiness. In 1991-92, 57% of Michigan's State FFA degree recipients were in agribusiness.

Because of employment trends in agriscience/agribusiness in Michigan, a restructuring process has been implemented, leading agriculture programs to a new agriscience and natural resource focus. This process includes ten steps that incorporate FFA into the curriculum. FFA instructional units included within the Michigan Agriscience and Natural Resources curriculum include: leadership development, career awareness development, scholarship, community service, leadership contests, skills contests, record keeping, and entrepreneurial development.

These units are important as Michigan faces a crisis in agriculture with respect to future leadership.

An excellent example of integrating FFA into the agriscience curriculum is the Project Pals program. This new program will match secondary agriculture students with elementary students to help them get excited about school, explore their interest in plants and animals, and develop their personal skills. Mentoring activities will center around building trust and developing positive self-esteem through sharing and working together in one-to-one relationships. This program is being designed to provide stability, guidance, and support to students who come from at-risk environments. Michigan and Arkansas have been selected as the two pilot states for the first year of the project.

In September agriculture students were selected to serve as mentors. This role is a major commitment on the part of the students selected, because they will be helping to build the human resource potential of a young child and themselves. The mentors go through the "made for excellence" leadership training program that emphasizes personal growth and development. The mentors will be receiving further training and guidance on a regular basis from their local team.

Project Pals is a direct outgrowth of the Strategic Plan for Agricultural Education, whose mission is to "provide a total dynamic educational system" which contributes to personal, academic and career development. One of the major goals under the plan is to →

provide for the development of the "whole person" through leadership, personal, and interpersonal training.

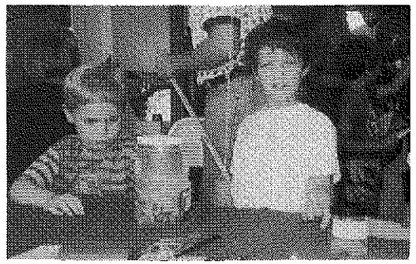
Agricultural literacy is another topic addressed within the Michigan Agriscience and Natural Resources curriculum. The FFA's Food for America Program is an important way Michigan FFA members are addressing agricultural literacy concerns. Forming comprehensive K-12 agriscience programs throughout Michigan is a goal that developed from efforts of FFA members striving to educate elementary students on issues in agriculture and food production. Food for America can be easily integrated into existing agriscience programs, providing opportunities for assertive agricultural leadership.

Many new programs in plant and animal science have adopted new strategies for teaching biotechnology while meeting the needs of FFA members in a variety of skill contests. FFA's Agriscience of the Year applicants are now using information learned in agriscience classes to win local, regional and state competitions. Environmental concerns are also being addressed through natural resource programs using the new curriculum and through an applied hands-on approach in the FFA.

Forming comprehensive K-12 agriscience programs in Michigan is a goal that is sought throughout the state.

FFA Meeting the Challenge

As the FFA advances, it must keep pace with the changes in agriculture and technology. Requirements for a strong agriculture and natural resources industry correlate directly to the need for quality agriscience programs. A supply of competent, bold, young leadership is essential for maintenance and expansion of our global agricultural economy. To meet this demand, dynamic and futuristic K-12 agricultural and natural resources programs must be our goal.



Building human resource potential of a young child is a commitment made by FFA members involved in Project Pals.

These new agriscience and natural resource programs must be structured with a commitment to providing access for all students. The FFA, being an integral part of the development of agricultural, environmental, and natural resource curricula, will foster a sense of individual responsibility for stewardship of our resources. Furthermore, FFA career development, which focuses on preparation and retraining, will enhance economic development.

As the FFA keeps pace with advancing science and technology, our purpose still holds true — the development of competent and assertive agricultural leadership.

References

Carnevale, A.P.; Gainer, L.J.; and Meltzer, A.S., (1988). *Workplace Basics: The Essential Skills Employers Want.* Alexandria, VA: American Society for Training and Development.

National Council for Agricultural Education (1990). *The Strategic Plan for Agricultural Education: A National Mobilization Plan for Revolutionary Change in Agricultural Education.* Alexandria, VA: Author.

Are You A Wiser Advisor?

(Continued from Page 4)

can then respond in the opening ceremony as the FFA founders intended:

"The owl is a time-honored emblem of knowledge and wisdom. Being older than the rest of you, I am asked to advise you from time to time as the need arises. I hope that my advice will always be based on true knowledge and ripened with wisdom." ■

Responsibilities ...

(Continued from Page 3)

Take Responsibility

Were these students telling me what I wanted to hear? Maybe! Were they describing FFA advisors, county agents or other youth organization leaders that had influenced them? Perhaps! Were they describing their own goals as the kind of advisor they would like to be? You and I as active members of the agricultural education profession can only hope and wait and see. But while we are waiting we can be positive role models for them. ■

Managing Your Time to Effectively Advise the FFA

BY RICHARD I. CARTER

Dr. Carter is professor of agricultural education at Iowa State University.

You can't manage time! Seconds, minutes, hours, and even years keep flowing by. The flow is one way and irreversible. The supply is fixed and the demand is infinite. Yet everyone has all there is. Time is perhaps our most valuable resource. You really can't save time; rather you need to concentrate on how to effectively spend your time. Managing time is actually a matter of managing yourself. If you don't manage how you spend your time, you can be sure that others will do it for you. Advising the FFA requires a great deal of the agricultural educator's time and represents an appropriate starting place for making better use of one's time.

The answer to effective utilization of time begins with each of us as individuals. Individuals have a tendency to find time to do those things which are required of them and those things which they want to do. Perhaps you would like to spend more time fishing with your family, but you just don't have time with all the FFA activities. If you would truly like to spend more time fishing with your family, then you need to employ techniques which will allow you to be more efficient in using your time. This article suggests ten principles to help you become more efficient.

Principle 1. Balance Personal Life and the Job

What this principle really means is that you should not rob your personal life to perform job-related activities, or vice versa. No one can tell you what the proper balance should be for you; only you can do that. The important thing to realize is that in the teaching profession you can spend every minute teaching or preparing to do so, and there will still be things you could do!

One needs to consider her/his family obligations, community interests, and professional responsibilities when deciding the time to spend on the job. I truly believe the most effective people in the long run are those who have maintained that balance between their personal lives and the job.

To maintain a balance, one should accept responsibilities only when other responsibilities can be reduced or eliminated. When you assume increased responsibilities related to your job, you should look for ways to cut some job-related responsibility. Likewise, before committing yourself to serve as an officer in a civic group, you need to identify what you can cut from your present community activities. The important thing is not "rob Peter to pay Paul"; you should not take additional responsibility in one area at the expense of another area. This leads to a situation of not being able to fish with the family!

Principle 2. Learn to Say No!

One of the most effective principles related to time management is simply learning to say no! The anti-drug campaign, "just say no," sounds easy, but it's difficult for those who have been involved in drugs. Equally so, it's hard for educators to say no in refusing to accept a request; it goes against much of what they believe. For example, teachers are required to continuously "pump and prime" students. When students want to do something outside of what they have to do, teachers are overcome with satisfaction and emotion. They are willing to accommodate students even if it presents a personal hardship for them. Unfortunately, this habitual response goes beyond students and into every aspect of one's life if it is allowed to happen.

What can one do to break this compelling habit of saying "yes"? Start with taking a realistic look at your goals, responsibilities, and interests. How does a particular request fit into **your** goals? Second, what's involved and how will it affect your life? Too often an internal urge will crosswire our thinking into believing that the task really won't take a lot of time. We must be honest with ourselves and others. Tell them that at this time, because of other commitments, you can't assume that responsibility. If you would like to do the task, encourage them to ask you again at a later date.

Principle 3. Empower FFA members

The key to efficiently operating an FFA

(Continued on page 15)

Subject Index
Volume 64

Author Index

July 1991-June 1992

Note: The Author Index presents author's name(s), month(s) of issue with article(s), and page number(s) in the issue.

Managing Your Time . . .

(Continued from Page 11)

chapter is to make sure that the FFA chapter is the students' organization. The way to achieve this goal is to make sure the chapter operates as a member-centered organization.

Several years ago, we conducted a research project to determine factors related to participation in the FFA. Several factors were identified, and the two key factors were: 1) image of the FFA chapter and, 2) whether the chapter operated as a member-centered chapter.

Operating as a member-centered organization simply means that the students are actively making the chapter's decisions, with the teacher in an advisory role. Too many teachers are reluctant to let loose and take an advisory role by delegating authority to the students. Some teachers feel they need to keep a finger on every aspect of chapter activities. In such a situation, the chapter becomes the teacher's organization rather than the students'. Many times in these situations, the teacher has to beg, coerce, and/or bribe students to get them to conduct the activities of the chapter.

The answer is to empower the members; let them make the decisions with your guidance. Following such a strategy might mean that traditional activities conducted by the chapter could be dumped for other activities. The key is that the members have to assume responsibility for their organization. If they do, you'll have more time!

Principle 4.
Employ Basic Time Management Strategies

A lot of work has been done on identifying techniques to help people make better use of their time. The best book I've read is by Tom Rochester entitled, *Make All of Your Time Quality Time.* It's a paperback and will not waste your time reading it. Let me suggest a few things most appropriate for teachers.

First, handle things once, especially mail. Agriculture teachers receive a lot of mail. When you open a letter, handle it if at all possible at that time. If it is a report form from the state department, take action rather than shuffling it to another part of your crowded desk. If it cannot be handled at the time, file it. The important thing is to get it off your desk without shuffling it three or four times! If the item requires a response, make a few notes in the margin and draft your response. Better yet, telephone a response.

Second, utilize a "to do" list to guide your daily activities. Each day, you have some time periods committed for specific activities, which means all the other things that you want to do have to be done in the uncommitted time periods. A "to do" list helps you prioritize and discipline yourself to attend to those high priority items first. It helps you keep on-track and focused on achieving one thing at a time.

Third, remove as many distractions as possible from the area in which you are working, or find a different place to work. Think twice before writing out that pass for the student to work on her record book. Ask yourself if the student's presence will interfere with you completing your tasks. If so, don't sign the pass!

Principle 5.
Utilize Community Resources

Former students, alumni members, parents, business leaders, and others can provide valuable services to teachers who are willing to use them. These people are willing and able to relieve the teacher of many tasks associated with the FFA. From chaperoning to training teams, interested community people can allow teachers to **control** rather than **do.**

Principle 6.
Prioritize Activities

If you accept the assumption that an individual cannot do everything, then you recognize the importance of prioritizing activities. Activities do not need to be prioritized unless they compete for the same time. A well-planned FFA program of activities should help ensure that too many activities are not happening at the same time. When setting priorities, personal activities should not be competing against job-related activities for your time. The priority of fishing with the family should be decided by determining whether it is more important than another personal activity, not an FFA activity.

The most common technique is to use the "ABC" method of setting priorities. Activities which are high priority and must be done are assigned an "A." "B" priority is given to those things which should be done. And "C" is assigned to those "nice to do" but not essential activities. Once priorities are set, then the challenge is in abiding by them.

Principle 7.
Attack Procrastination Head On

One of the most deadly causes of inefficient time use comes from procrastinating. This is most commonly associated with unpleasant, difficult or complex tasks; things that you don't look forward to doing. Here are a few tips which will help you avoid the procrastination trap. Begin by doing those tasks which you don't look forward to doing. Delay will not make them any easier, so get them out

(Continued on page 18)

Just The Facts, Please!

BY DENNIS C. SCANLON
Dr. Scanlon is associate professor of agricultural and extension education at Penn State University.

Mention educational research to the practitioner and the response is somewhere between "oh, really" and "so what?" Most practicing teachers fail to see research as a useful tool that can provide the basics of intelligent decision making.

Educational research, the vast majority of which is survey research, is far from perfect. Potential errors abound. Did I ask the right questions to the right people? Do I have all interested parties represented? Did I get a good cross section of the population? Were the respondents truthful? But, despite all its potential flaws, if we collectively consider a body of research related to a single topic, certain "truisms" or themes quickly become apparent. These icons point in the direction of change and ultimately provide the basis for decision making to occur.

If we consider the collective body of research on advising the FFA, it becomes obvious that some changes in our time tested and trusted method of advising the FFA would be in order. Consider how the following points would impact on advising the FFA in today's educational setting.

Changing Clientele Base

It would be a relatively safe statement to say that over the past 10 years students have changed. The majority of our students are no longer from the farm, and in many cases, do not represent a rural way of life, nor do they reflect the work ethics or value system that we often associate with rural America. Consider what the research literature tells us about our traditional clientele base. In the past, the majority of students enrolling in agriculture were from farms or had some farm experience.

The vast majority of students were white males, and the percentage of minority students and students coming from low socioeconomic groups was low. In many cases, students had been former members of an agricultural youth group.

Contrast this with the type of student we currently are seeking to attract into agriculture programs in such areas as aquaculture, food sciences, and international agriculture. The new expanded clientele base includes a greater number of minority students, females, and students from urban areas.

In addition, we are looking for students with better math and science abilities, and in most cases we seek students with aspirations of going on to a two-year technical school or four-year university. Clearly, the new curriculum is designed to have market appeal to a different group of students than we have traditionally served.

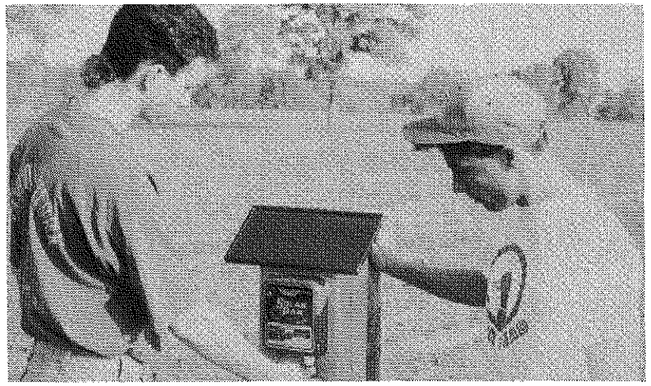
What's an advisor to do? Remain stalwart and firm in traditional approaches to advising the FFA? In 1976, national enrollment in agriculture was at an all-time high of 697,000 students, with the FFA membership at approximately 509,000. In 1991, despite the fact that agriculture enrollment had declined to less than 500,000, the percentage of students choosing to become FFA members remained steady at . about 75% or 389,000. These data suggest that FFA membership is stable and is directly tied to enrollment.

Therefore, if we hope to reverse the enrollment trend and increase FFA membership, we must make programmatic changes and modify existing reward structures to accommodate and cultivate the needs of new students groups.

In addition, we must also take advantage of new programs and awards developed by state and national organizations that recognize and encourage the non-traditional student who enters agriculture programs. Unfortunately, many advisors do not accept new programs and awards as a legitimate part of their program, and consequently, do little to promote them as part of a total agriculture program. If we are to successfully advise an FFA chapter, we must accept both the organizational and structural changes which are occurring within the FFA and "Just do it!"

Changing Program Goals

Just a few years ago if you asked any vocational educator to define vocational education the response would have been similar to this — "preparation for work at less than the baccalaureate level." Ask the question today, and the response might be considerably different. The changing nature of the workplace, work, and the worker might suggest that preparation for work involves something more than just a high school education. Research data suggest that the number of unskilled workers needed in the future will decline, and modern society will →



Solar-driven irrigation systems are but one of the innovative approved practices used by this FFA member in his crop management system.
(Photo courtesy of David Spencer, Lecanto, FL)

demand more technical expertise at every level. As this evolution occurs, astute educators will adjust their programs to what they perceive to be a comfortable niche in the evolutionary process, We will, by nature of our very strong desire to survive, explore alternate delivery systems for agricultural and traditional clientele bases. Hopefully these alternative delivery models will include an FFA component.

Research suggests that alternative delivery models will most likely be articulated delivery models with high school programs providing the basic foundation for technical information that will follow at perhaps a two- or four-year institution. Students who select these types of programs will no doubt have career and educational aspirations considerably different from our traditional students of the past and will view the FFA and its related activities from a different perspective.

Advising the students and indeed convincing these students to become FFA members will be a challenge. The organizational literature that deals with why people join and participate in extracurricular activities suggests that people join groups because 1) they like the task or activity of the group, 2) they like the people in the group, or 3) the group satisfies certain personal needs which cannot be met in any other way.

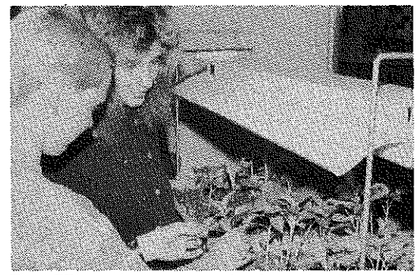
Compare this with the results of a recent study done for the National FFA Organization (1989) which identified three major factors which influence a student's decision to enroll in agriculture and join the FFA — 1) the perceived value of the agriculture program, 2) the image of agricultural education, and 3) the influence of other significant people in the student's life.

Collectively these studies suggest that as program goals change, the needs of the students being served by the programs will change. Therefore, to advise well is to anticipate the direction of change and have programs and award structures in place that meet the needs of the new clientele group.

As we shift our programs from traditional "job-based" models to articulated models, we can anticipate a much greater need for leadership skills — an area in which the FFA has always been strong. As advisors, we must provide innovative, stimulating, and challenging leadership activities that our students find worth the time we are asking them to invest in our program. To ignore the basic facts related to changing demographics and clientele and to not consider some of the literature related to organizational research is almost sure to result in a poorly advised, ineffective FFA Chapter.

Changing Curriculum Emphasis

In the early 1990s, approximately 33% of the U.S. workforce was employed in production agriculture; today that number is less than 3%. Agricultural education has lost a large pool of



These FFA members are comparing the results of the micropropagation techniques used on these pepper plants to be transplanted in the school garden.
(Photo courtesy of David Spencer, Lecanto, FL)

potential enrollees.

This subtle but steady shift in the basic direction of agricultural education has resulted in programs with decreased emphasis on the production component of agriculture and increased emphasis on science and emerging areas of interest. Words such as aquaculture, hydroponics, and food science, not part of the agricultural education vocabulary 10 years ago, today account for a large part of program emphasis in agricultural education. These programs, responsible for attracting many new students into agricultural education, often carry with them "programmatic baggage" related to proficiency awards, SAE, and degree requirements.

Successful teachers who intend to use these emerging programs to attract new students must become very innovative and resourceful at working these new programs into the →

Managing Your Time...

(Continued from Page 15)

of sight and mind. Recognize that procrastination causes unnecessary emotional anguish and that excuses will only temporarily satisfy the reality of not getting the job done. Believe in yourself and just do it!

Principle 8.
Organize for Success

Organization for the agriculture teacher begins with a good filing system. Accessing information is a key in today's world, and certainly there is nothing as time consuming and frustrating as not being able to find something you know you have.

Setting up a file system is not nearly as hard as maintaining one. When in doubt about whether to keep an item, throw it out. Only file those things which you definitely will use. The best time to review, clean out, and maintain that file is when materials are filed in it.

An FFA calendar of activities and events will help FFA members assume more responsibility for chapter operation and therefore take less of your time. The National FFA Supply Service offers wall posters listing activities and events of the chapter. These provide ready access and reference for you and your FFA members.

Keep one calendar of your activities. It gets too confusing to have a school desk calendar, an FFA calendar, a pocket calendar, and a home calendar. Use your calendar; don't depend on your memory.

Principle 9.
Use "Peak Time" Wisely

"Peak time" refers to the time in which a person is at his/her mental best. Some individuals are morning people, others evening people. One should schedule those activities which require the most mentality during the individual's peak time. In contrast, events requiring little mental alertness or "no brainer" activities should be scheduled in off-peak times. Usually hands-on, doing activities don't require as much mental alertness as planning and organizing activities.

Principle 10.
Keep Life in Perspective

The most important time management suggestion is to keep your life in proper perspective. Ask yourself, what will happen if I don't do this? How important is it? Is this activity really necessary to realize the educational objectives desired? The sun will come up again even if your livestock judging team doesn't place gold, or the chapter's banquet doesn't go real smooth. Lou Holtz, noted football coach and speaker, emphasizes the motto, "WIN — What's Important Now." Holtz's motto provides an excellent guiding principle for one to keep things in perspective by focusing on the present, not the past or even the future.

Summary

When a minute is past, it cannot be retrieved. There is not instant replay of our time. If we want our time to count, we need to make use of it as it passes. Following sound principles of time management will allow you to make better use of your time. Do it now; your clock is ticking!

Bibliography

Rochester, T. (1984). *Make All Your Time Quality Time.* Self + Rich Books: Tolland, CT. ■

Just the Facts, Please!

(Continued from Page 17)

existing structure in a way that meets the needs of students. Only then will students start to focus on the inherent value of the FFA organization, and problems related to image and relevance will begin to fade.

Research! It documents the dwindling traditional base; it urges you to expand your clientele base to include urban, minority and other non-traditional support groups; and finally it challenges you to modify existing programs to include a stronger emphasis on science and emerging areas of interest. But considering all the changes which have occurred in agricultural education and the FFA, does the literature tell you how to advise the FFA in today's educational climate?

Unfortunately, the answer is no! The recipe you seek for successfully advising the FFA is not written clearly and concisely in any publication that I have reviewed. However, that is not to say that a solution does not exist. Assembling these research data into a workable plan for advising the FFA is like putting together a 3000 piece interlocking puzzle — if you have patience and a plan, the picture will eventually come into view.

Bibliography

Herron, R.V. (1986). Developing directions for change in FFA. *The Agricultural Education Magazine,* 59 (2).
Hoover, T.S. (1990). *Enrollment Issues and Recruitment Practices in Agricultural Education Programs.* Published Doctoral Dissertation, The Pennsylvania State University.
National FFA Organization. (1989). Participation in selected FFA activities 1979-89. Alexander, VA.
Quey, R.L. (1971). Functions and dynamics of work groups. *American Psychologist,* 26 (10), 1081.
Scanlon, D.C.; Yoder, E.P.; and Hoover, T.S. (1989). Enrollment trends in agricultural education programs and FFA membership. Proceedings of the 16th National Agricultural Education Research Meeting (pp. 335-342). Orlando, FL. ■

The FFA in Middle School Agricultural Education

BY JOHN HUGHES
Mr. Hughes is an agriculture teacher at New Smyrna Beach Middle School, New Smyrna Beach, Florida.

Applied academics has proven to be an effective approach to middle school agricultural education. Each lesson is designed to combine classroom activities and hands-on experiences focusing on the importance of agriculture in everyday life and exposing the students to the wide variety of career opportunities in agribusiness and natural resources. What better way to implement these teaching/learning units than by utilizing the FFA organization?

SAE and BOAC are the basic building blocks for any agriculture/FFA program. Through supervised agricultural experiences, students develop personal responsibility and a positive work ethic, as well as achieve a sense of accomplishment. No longer can education be considered a "show me" or "tell me" situation.

By conducting an SAE project the student becomes involved in the educational process. A student's SAE may be a tomato plant grown in a container, a livestock production project, or work experience. The instructor opens the door to success for the students by stressing the need for accurate and detailed record keeping on the student's part and by personally maintaining diligent supervision of the selected project.

In relating the importance of agriculture, it is critical for the students to be familiar with their own community and how to become a functional part of that community.

BOAC is an ideal vehicle for such learning experiences. The problem-solving approach of BOAC provides a logical set of steps to follow, beginning with a survey of recognized needs in the community. Skills that benefit an individual into adult life are developed as the process of selecting a particular need, organizing available resources, and implementing and evaluating the project at completion. In addition, BOAC is the kind of program in which all students, regardless of age or ability, can participate.

FFA contests permit members to demonstrate knowledge and skills and are powerful motivators for middle school programs.

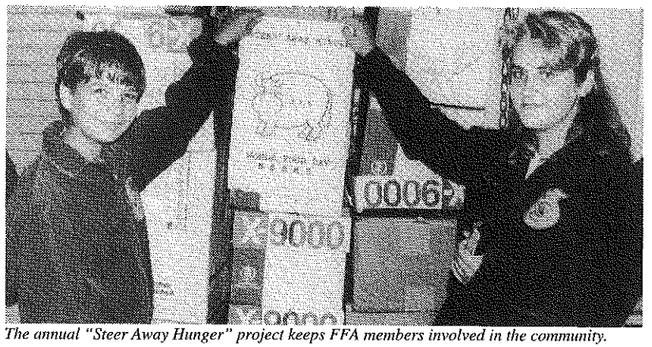
By utilizing press release materials supplied by the chapter, local media not only inform the public of FFA members' activities in the community, they also help instill a sense of accomplishment in the members.

An example of positive publicity would be the reporting of local youth returning from a state or national convention where they accepted awards on behalf of the chapter. This experience relayed through photos and news copy can be a highly motivational device for fellow chapter members who were part of the project.

Individuals with a high level of interest in a given area can excel through FFA judging and demonstration contests. These events provide learning experiences and opportunities to exhibit skills and knowledge acquired in the classroom and laboratory settings. Positive, competitive experiences encourage students to learn more about agriculture and related subjects and promote their enjoyable experiences to others.

The FFA provides many middle schoolers with their first opportunity to participate in

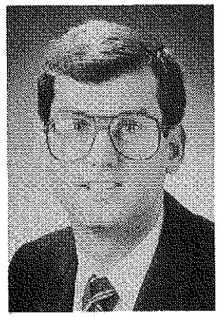
(Continued on page 23)



The annual "Steer Away Hunger" project keeps FFA members involved in the community.

LABORATORY TEACHING

Planning Effective Method Demonstrations



BY DONALD M. JOHNSON

Dr. Johnson is an assistant professor of agricultural and extension education at Mississippi State University.

The method demonstration is a widely used teaching technique in agricultural education. According to Bear and Hoerner (1986, p. 20), "Agricultural mechanics instruction is frequently synonymous with demonstrations as a teaching technique." This statement can be generalized to most areas of laboratory instruction in agricultural education (e.g., greenhouses, land laboratories, agriscience laboratories, etc.).

According to Miller (1990, p. 147), "The (method) demonstration is an instructional method used to show and explain the procedures involved in completing a task." Method demonstrations are especially effective for teaching manipulative skills and scientific principles.

Well planned and delivered method demonstrations enhance student learning. However, demonstrations that are poorly planned or delivered may actually hinder learning by confusing and/or frustrating students (Newcomb, McCracken, and Warmbrod, 1986).

Purpose

This article describes correct practices in preparing method demonstrations. It is intended as the first of two articles on planning and delivering effective method demonstrations.

Preparing for the Demonstration

Teachers must prepare in order to present high quality demonstrations. In preparing to present a method demonstration, effective teachers do the following — 1) specify instructional objectives; 2) conduct a task analysis; 3) develop a written lesson plan; 4) assemble necessary equipment and supplies; and 5) practice the demonstration.

Specify instructional objectives. The first step in planning a demonstration is identifying the instructional objectives to be accomplished. Teachers should clearly and specifically state what the students should know and/or be able to do as a result of observing the demonstration. Clear, specific objectives are essential in planning an effective demonstration.

Conduct a task analysis. A task analysis involves dividing the skill or principle to be demonstrated into logical, easily explained steps. These steps and the information related to each step should be written out during the task analysis. This forces the instructor to think the demonstration through from beginning to end. Writing out each step and the related information prevents the instructor from omitting important procedures or information.

A thorough task analysis of the skill or principle to be demonstrated is just as important for the experienced teacher as it is for the beginning teacher. According to Miller (1990, p. 150), "The skillful instructor may demonstrate many of the operational steps or procedures in such an efficient and automatic manner that the identification of detailed steps may be difficult for students." Systematic task analysis helps the teacher look at the skill or principle to be demonstrated from the learner's perspective.

Develop a written lesson plan. A written lesson plan should be developed for each large group (and certain small group) demonstration. A file of well-written lesson plans, covering demonstrations presented one or more times each year or semester, is a valuable, time-saving asset for any busy agriculture teacher.

A suggested demonstration lesson plan format divides the operation to be demonstrated into "steps" and "key points" based on the previously completed task analysis. In this format, steps are the individual operational procedures (actions) to be demonstrated, while the key points are the items of related information to be stressed during each step. Figure 1 provides an example of the presentation portion of this type of lesson plan. Further information on this lesson plan format can be found in *Planning, Organizing and Teaching Agricultural Mechanics* by Bear and Hoerner (1986).

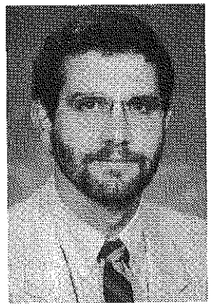
Assemble necessary equipment and supplies. Many potentially excellent demonstrations have been rendered ineffective because at some critical point during the presentation the teacher realized that he or she did not have all of the materials necessary to complete the demonstration.

Advance planning and organization of equipment and supplies can prevent this from happening. Listing necessary equipment and

(Continued on Page 23)

CLASSROOM TECHNIQUES

Toward A Contemporary Application of Problem Solving



BY GARY S. STRAQUADINE AND JO EGELUND

Dr. Straquadine is assistant professor and assistant head and Ms. Egelund is a graduate research assistant at Utah State University.

Hammond (1950) refers to problem solving as "...the task of making decisions or things the learner wants to make or do, the nature of which he is able to understand, but for which at the time he has no solution."

In terms of more modern education, a new philosophy began to emerge in America. While memorization and drill were still popular, the progressive educational movement, characterized by the work of Dewey, was gaining wide acceptance. Hammond required the problem situation to be perplexing, but not confusing, for where there are no difficulties, there are no problems. Believing that thinking and problem solving are intimately related, Hammond felt that the typical steps in problem solving are very similar to those in reflective thinking.

Although perhaps not the first, Dewey believed students should be more actively involved in selecting what should be learned and should be allowed to learn through the problem-solving approach (Dworkin, 1959). However, before one can fully understand the concept of the problem-solving approach, one must become acquainted with the learning process. Dewey's reflective learning process consisted of five steps which required the student to: 1) recognize a problem; 2) define the problem; 3) offer many possible solutions; 4) test the hypothesis; and 5) verify the final conclusion (Coleman, 1967).

Beginning in 1932, Sutherland promoted a six-step problem solving and reflective thinking process. He believed that the thinking process began with a felt difficulty or problematic situation, followed by the location or definition of the problem. Next an inference or guess to its probable solution was offered. Then the finding of facts to prove or disprove the inference was necessary, followed by the weighing of these facts and the revising of the inference in light of the facts. Finally, one arrives at a conclusion based on the facts found.

Starrak (1932, 1933a, 1933b, 1933c, 1933d), a prolific writer in early problem solving, neither contradicted nor supported the steps of Dewey or Sutherland's approaches. Taking the steps outlined by both, Starrak wrote about the individual concepts in the problem-solving method of teaching. From the previous models presented by Sutherland and Dewey, Starrak (1933a) offered a four-step model — 1) assembling facts; 2) selecting functioning facts; 3) evaluating facts drawing on experience, job intelligence, judgment, or results desired; and 4) reaching a decision.

The first empirical research found by the authors of this paper on the problem-solving approach was conducted by Betts from Colorado State College of Agriculture and Mechanic Arts. This research by Betts (1942a, 1942b) centered on problem-solving by two methods; the philosophical and the scientific. Betts (1942b) further developed a frame of reference for the goals of learning, which he referred to as the psychology of problem solving.

In the late forties, Sutherland revised his earlier six-step model in the problem-solving approach. The revised model called for — 1) getting a statement of the problem; 2) having it limited and defined more clearly; 3) getting inferences and opinions as to possible courses of action; 4) getting additional facts; 5) revising original inferences and getting additional inferences; and 6) testing and weighing each conclusion and deciding upon the best one (Sutherland, 1948).

Stewart's work in 1950 centered upon defining the patterns which best present the total problem-solving procedure. The patterns identified were — 1) forked road situation; 2) possibilities-factors chart, 3) given a situation to be improved; 4) given an effect, find a cause or causes (Stewart, 1950).

In the decade of the fifties, Clover (1953) described the problem-solving approach using a larger number of steps. This seven-step model included the following — 1) select the problem; 2) delimit the problem; 3) obtain tentative solutions; 4) obtain information; 5) check information obtained; 6) reach a sound conclusion; and 7) follow-up. This was the first model presented to call for formative evaluation and follow-up.

The decades of the sixties and seventies →

saw little variation or emphasis on the problem-solving approach. This period of low activity can be partly attributed to the proliferation of alternative instructional methods reflective of societal demands upon education (Cruickshank, 1984).

Today the problem-solving approach is alive and well as the preferred method of teaching in agriculture. This teaching method has changed little from the early days of vocational agriculture. Dewey's five-step process has been expanded and illustrated by Newcomb, McCracken and Warmbrod in *Methods of Teaching Agriculture* and John Bransford and Barry S. Stein in *The Ideal Problem Solver: A Guide for Improving Thinking, Learning and Creativity.*

Newcomb, et. al., presented their six-step learning model as — 1) experiencing a provocative situation; 2) defining the problem; 3) seeking data and information; 4) formulating possible solutions; 5) testing proposed solutions; and 6) evaluating the results.

By comparing the learning process to problem-solving, these authors provide the following six steps in the problem-solving approach to teaching — 1) interest approach; 2) group objectives; 3) developing the problems and questions; 4) problem solution; 5) testing proposed solutions through application; and 6) evaluation of the solution.

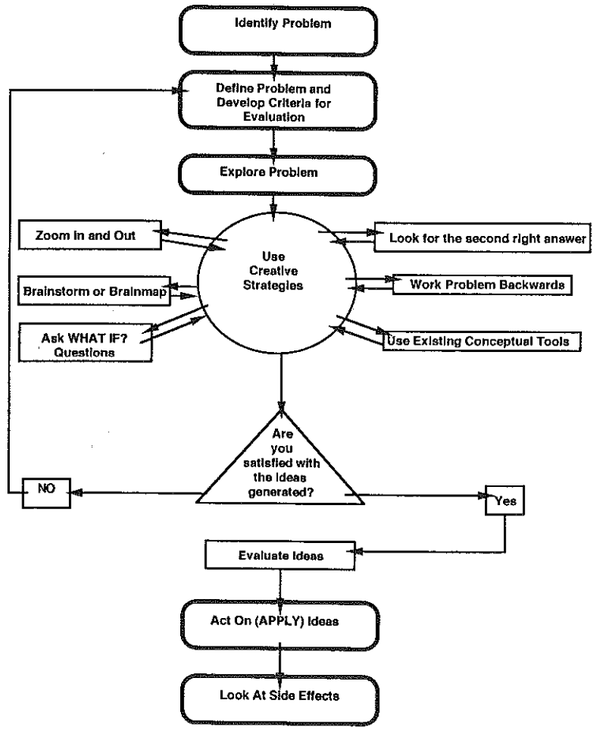


Figure 1: Ideal Problem Solving Model

Bransford and Stein illustrated a contemporary application of problem-solving called the "Ideal Problem-Solving Model." This model exemplifies the use of a systematic approach (breaking the whole problem into component parts) and utilizing different strategies that could possibly result in better solutions. Some of these strategies may include working a problem backward instead of forward, clustering ideas first and evaluating later, using a scaled model or performing an experiment that simulates certain characteristics of a real world environment, and using relevant conceptual tools which will simplify the problem-solving process. It is important to note that one may go through the ideal cycle several times before the problem is solved. Figure 1 identifies the steps in using this contemporary systems approach for problem solvers.

Generally there are sequential problem-solving steps in every method and certain skills that all problem solvers need to possess. Johnson and Johnson stated:

"Problem-solving adequacy should be high. Problems must be resolved with minimal energy and in a way that eliminates them permanently. Procedures should exist for sensing the existence of problems, inventing, and implementing solutions. When problems are dealt with adequately, the problem solving ability of the group is increased, innovation is encouraged and group effectiveness is improved (Johnson, 1987, p. 10)."

In the opinion of these writers, the models advocated by Newcomb et. al., and Bransford and Stein are system models of the problem-solving approach to teaching. Although many procedures may differ in name and style, all are based upon Dewey's problem-solving approach.

Bibliography

Betts, G.L. (1942a). Problem-Solving by Two Methods: The Philosophic and the Scientific, Part I. *The Agricultural Education Magazine.* July. pg. 14-15.

Betts, G.L. (1942b). Problem-Solving by Two Methods: The Philosophic and the Scientific, Part II. *The Agricultural Education Magazine.* Aug. pg. 34-35.

Bransford, John and Barry S. Stein (c1984). *The Ideal Problem Solver: A Guide for Improving Thinking, Learning, and Creativity.* New York, NY: W.H. Freeman.

Clover, E. (1953). The Problem Method, *The Agricultural Education Magazine,* Sept. pg. 53-56.

Coleman, J.E. (1967). *The Master Teachers and the Art of Teaching,* New York, NY: Pittman Publishing Corp.

Cruickshank, D.R. (1984). *Models for the Preparation of America's Teachers.* Phi Delta Kappa, Bloomington, IN.

Dworkin, M.S. (1959). *Dewey on Education.* New York, NY: Teachers College, Columbia University.

Hammond, C. (1950). *Teaching Agriculture.* McGraw-Hill, New York, NY

(Continued on Page 23)

The FFA in Middle School...

(Continued from Page 19)

the democratic process and parliamentary procedure. Debating items of business, being involved in decision making processes, and electing officers and committee chairpersons combine to make an effective tool for teaching and learning cooperation.

FFA members fortunate enough to be elected to chapter or sub-district office have the opportunity to participate in leadership workshops designed to provide information that the officers can share with their fellow members. The ability to communicate effectively through the aforementioned activities and public speaking contests is an integral part of an active FFA program and serves to acquaint and equip students with academic and vocational skills.

The motto of ag education is "learning by doing" and the FFA organization can provide motivation and opportunity for middle school students to aspire and achieve a quality educational experience through that program. ■

Toward A . . .

(Continued from Page 22)

Johnson, David W. and Frank P. Johnson (1987). *Joining Together, Group Theory and Group Skills.* 3rd Edition. Prentice-Hall, Inc. Englewood Cliffs, New Jersey. p. 10.

Newcomb, L.H.; McCracken, J.D.; and Warmbrod, J.R. (1986). *Methods of Teaching Agriculture.* Interstate Printers and Publishers, Danville, IL

Starrak, J.A. (1932). Problem Procedures in Teaching Vocational Agriculture. *The Agriculture Education Magazine.* Dec. pg. 87-96.

Starrak, J.A. (1933a). Problem Procedures in Teaching Vocational Agriculture: Determining the Objectives to be achieved. *The Agricultural Education Magazine.* June. pg. 186-187.

Starrak, J.A. (1933b). Problem Procedures in Teaching Vocational Agriculture: The Formulation and Arrangement of the Problems. *The Agricultural Education Magazine.* July. pg. 10-11.

Starrak, J.A. (1933c). Problem Procedures in Teaching Vocational Agriculture: Presenting the Problem to the Class for Study. *The Agricultural Education Magazine.* Aug. pg. 22-23.

Starrak, J.A. (1933d). Problem Procedures in Teaching Vocational Agriculture: Bringing the Problem to a Satisfactory Conclusion. *The Agricultural Education Magazine.* Sept. pg. 42-43.

Stewart, W.F. (1950). *Methods of Good Teaching.* The Ohio State University Press, Columbus, OH.

Sutherland, S.S. (1932). Problem Teaching in Vocational Agriculture. *The Agricultural Education Magazine.* May, pg. 179.

Sutherland, S.S. (1948). A Problem Solving Procedure. *The Agricultural Education Magazine.* Aug. pg. 29-35.

About the Cover

The Program of Activities serves as the centerpiece for a successful FFA chapter. The advisor(s) must perform many functions (outer ring) with FFA members in and through the many available opportunities (inner ring) to help the chapter realize its goals.

Planning Effective...

(Continued from Page 20)

Figure 1. Example step and key points component from a method demonstration lesson plan

Step	Key Points
2. Rip cable — demonstrate removal of 6" of outer sheathing from cable using the cable ripper	a. Must remove 6" of sheathing from cable. b. The cable ripper is the correct tool to use on Type NM 12-2 w/g cable because it will not damage the insulation on the individual wires under the sheathing.

supplies makes preparation of subsequent demonstrations quicker and easier.

Practice the demonstration. The teacher should practice each demonstration before presenting it to the students. Practice enhances instructor confidence and ability. This allows instructors to focus more of their attention on the learners during the actual demonstration.

Practicing the demonstration also allows the instructor to identify any oversights which may have occurred during the planning process. When discovered during practice, these oversights can be corrected before they ruin an otherwise excellent demonstration.

Summary

Method demonstrations are widely used in laboratory instruction in agricultural education. Like all components of laboratory instruction, a method demonstration must be well planned and organized if it is to be effective. This article has discussed key components of effective demonstration planning. A future article will discuss how to present effective method demonstrations.

References

Bear, W.F. and Hoerner, T.A. (1986). *Planning, Organizing and Teaching Agricultural Mechanics.* St. Paul, MN: Hobar Publications.

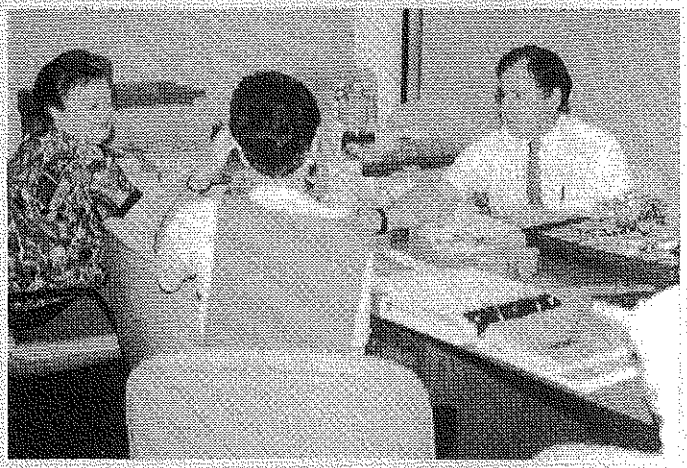
Miller, W.R. (1990). *Instructors and Their Jobs.* Homewood, IL: American Technical Publishers.

Newcomb, L.H., McCracken, J.D., and Warmbrod, J.R. (1986). *Methods of Teaching Agriculture.* Danville, IL: The Interstate.

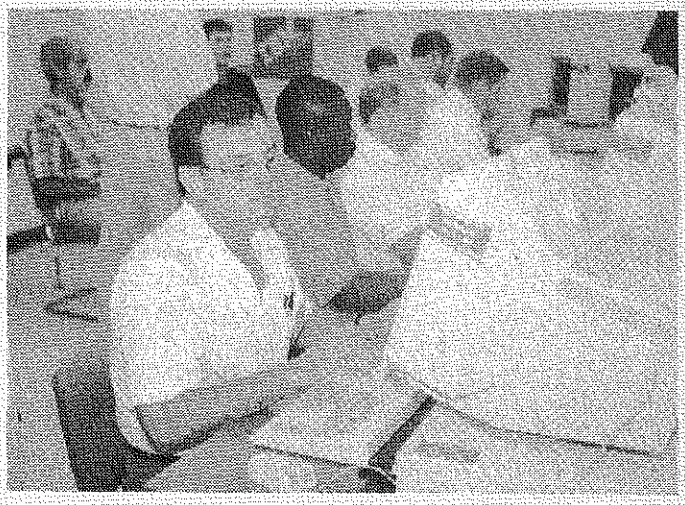
STORIES IN PICTURES

(Photos courtesy of Glen Shinn, Clemson University)

Over 100 elementary teachers participated in South Carolina Agriculture in the classroom workshops held at the Research and Education Centers (Experiment Stations) across the state. The AITC program is a cooperative venture among Clemson University, SC Farm Bureau Federation, SC Department of Agriculture and SC Department of Education. Tammy Black, Clemson University, and Emory Bishop, SCFBF check last minute registration details.



Dr. Joe Harper demonstrates mathematics and science principles using agriculture as a basis for the experience. Mathematics teaching tips were provided for students in grades K-5 during a series of AITC workshops.



Philip Morris USA provided the latest personal computers for use in South Carolina Off-Campus Instruction. Courses have been offered at three centers throughout the state for agriculture teachers. Mr. Harry DuBose, agriculture teacher in Aynor, SC, works with a windows program.

Mr. Eddie Johnson, Past SCVATA President, shares his knowledge of hydraulics with fellow teachers. Mr. Johnson and Dr. Joe Harper organized a workshop during the summer teacher's conference. At the conclusion of the workshop, each teacher took a set of teaching aides home for use in local programs.