THEME: Leadership Development
THE AGRICULTURAL EDUCATION MAGAZINE

November, 1989

Volume 62 Number 5

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ARTICLE SUBMISSION

Articles and photographs should be submitted to the
Editor, Regional Editors, or Special Editors. Articles 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 informa-
tion about the author(s). Two copies of articles should be
submitted. A recent photograph should accompany
an article unless one is on file with the Editor.

PUBLICATION INFORMATION

The AGRICULTURAL EDUCATION Magazine (ISSN
7024-6797) 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 Co., 618 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, 1803 Rural Point Road,
Mechanicsville, Virginia 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 Univer-
sity Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. In submitting subscriptions, designate new or
renewal and address including ZIP code. Send all subscriptions and requests for back copy issues to the Business
Manager; Glenn A. Anderson, Business Manager, 1803 Rural Point Road, Mechanicsville, VA 23111.

Publication No. 70246

THE AGRICULTURAL EDUCATION MAGAZINE
Leadership Development

The agricultural education profession has for years espoused the value and need for leadership development. One of the six national objectives of the vocational agriculture program was "to develop the abilities needed to exercise and follow effective leadership in fulfilling occupational, social and civic responsibilities." The FFA has been used as a teaching tool for developing leadership skills and as a means for providing "hands-on" experience in practicing leadership behavior. The profession has developed so much confidence in our ability to prepare individuals for leadership positions we even rationalize the need for an agricultural education program on this basis alone! Apparently others have heard or seen the results to the point that school administrators have placed student council members and student body officers in agricultural education programs for the leadership training. One principal remarked to the author that he could think of no better opportunity for developing leadership in his high school than by placing the elected student officers in the FFA program. One school board made the decision to expend the funds required to initiate a vocational agriculture program solely on the need for providing leadership skills and the experiences of working with people available through the FFA.

On the other hand, I have had the opportunity to work with new teachers of vocational agriculture for the past nineteen years. On more than one occasion a beginning teacher has told me that he/she did not have time to worry about conducting an FFA program. One teacher suggested that there was too much technical subject matter in agriculture and mechanization to "waste time" with a student club. Another said, "Don't give me the 'company line'. I was trained to teach, not babysit kids after school in some school club." In every case the beginning teacher either quickly changed their mind, or in one case failed to finish the year.

Thus, we believe in and advocate leadership development as a crucial part of the agricultural education program at both the secondary school and postsecondary/adult levels. Those who fail to recognize the need and provide the opportunities for leadership generally do not stay in the profession.

What is leadership development? Some believe it is sufficient to provide instruction on parliamentary procedure and do a little public speaking, i.e., provide basic skills. Others contend that leadership development is more than participation in some leadership contest.

Dr. Nancy Cole-Huber, Director of the Community Leadership and Resource Development program, University of Arizona, describes leadership development as a process of "enabling and empowering people to become effective participants in the community development process." Broadly interpreting "community development process" to mean any endeavor a group of people find to be a worthy undertaking, the definition has a universal application. It would include leadership as practiced in FFA. The challenge for an educational program attempting to provide leadership development is one of "enabling and empowering people," Dr. Cole-Huber describes the enabling process as the training aspects of skill development. She would include such abilities as public speaking, parliamentary procedure skills, agenda-building and conflict resolution as examples of enabling skills. The empowering aspect of leadership development encompasses the process side which should include: critical thinking, creativity and an understanding of group dynamics and group maturity.

How complete is leadership development as practiced in agricultural education? The critics complain that we are only doing part of the job in providing limited leadership skills to a few students and providing the opportunity to serve in a leadership role to an even smaller number. They would characterize the value of officer training sessions conducted by many chapters as little more than recreational events with little if any effort devoted to "enabling and empowering" individuals to assume an effective role in the chapter development process.

The critics suggest that agricultural education does very little towards "empowering" students for leadership. How much instruction is provided on group dynamics and group maturity? An effective leader needs the background and understanding of these two concepts in order to intelligently provide an appropriate leadership mode and to organize the members to solve a problem or move towards the group goal(s). Certainly an immature group must be dealt with using a different leadership mode than one that has matured and in which each individual has confidence and a role to play.

What do we provide students in the way of problemsolving abilities appropriate for dealing with typically messy social problems (people problems)? Agricultural education takes pride in using problem-solving as a teaching method. We even claim that one of our significant contributions is teaching students to "think and solve problems." Is the problem-solving taught appropriate for dealing with messy social situations, or is it the old scientific, reductionist approach appropriate only in the laboratory? Have we empowered FFA members and officers with a soft-system.

(Continued on page 8)
Leadership for Agriculture: How Do We Avoid the Abilene Paradox?

It's a hot, stuffy July afternoon, and it's 104 degrees and the air is filled with West Texas topsoil that clings to you every time a breeze comes up. For the lack of anything better to do, six of you pile in the family car (no air conditioning) and drive from Coleman, Texas to Abilene (50 or so miles) to get something to eat. Some hours later and 100+ miles you get back home. Oh, what a trip! Across the desert in a furnace-like heat and a dust storm resulting in your sweat mixing with the dust to coat your arms, face and neck with a concrete-like coating. Back home now, you're sitting on the porch and no one says anything. Finally, someone says they didn't like the trip and wouldn't have gone if they would not have been pressured into it. Pretty soon it's obvious nobody wanted to go in the first place, yet everyone went to Abilene. It doesn't make any sense! You had all done what nobody wanted to do.

Harvey in The Abilene Paradox described the above situation in which ultimately the question comes back to, "Who influenced the group to go to Abilene in the first place?" "Who, if anyone, was the leader, and how could that person or persons get a group to do something when now it becomes obvious it wasn't what anyone wanted?" Is this leadership? If agriculture is to avoid the Abilene Paradox, we must assume responsibility for developing such leadership. Agricultural leadership is desperately needed if we are to play a vital role in the development of the human resource base for the food and fiber system.

The development of such leadership begins in our elementary and secondary schools and continues through the adult education component of secondary and postsecondary education programs in agriculture. Horner and Blezek in their article, document the importance of providing leadership development opportunities for persons not enrolled in formal educational programs at the secondary or postsecondary level.

Leadership development occurs throughout our total agricultural education program and is not limited only to activities associated with PAS, FFA, 4-H and NYFEA. That is, leadership development is a part of the total curriculum including classroom and laboratory instruction, supervised experiences and the youth organization. Herren describes the importance of the teacher as a situational leader in delivering a total, comprehensive program at the secondary school level. Nelson, in his article, reminds us that all students should have a "seat on the bus" of leadership development and leadership development is not limited to a select few actively involved with FFA activities. Three articles (Miller, Mulcahy, and Powers) in essence challenge us to expand our horizons relative to our local programs in total, and more specifically the FFA. Specifically we are challenged to modify existing FFA programs to meet the needs of students within a framework which avoids the Abilene Paradox. The article by Mulcahy provides useful ideas for the classroom teacher to use in effectively working with an FFA organization.

As a result of people (youth and adults) participating in our programs which include leadership development activities, how do they differ? What skills or concepts do they develop which they may use in real-life situations so they may exert leadership and avoid the Abilene Paradox.

It is often difficult to pinpoint specifically how and in what way we have contributed to a person's leadership development. Perhaps the influence of our program's leadership development activities is best argued in terms of our contribution to the development of the individual's total package of life skills. These life skills have been identified by Dorothy Rich as the "megaskills of which achievements are made of." These ten megaskills include the development of a person's:

- confidence
- motivation
- effort
- responsibility
- initiative
- perseverance
- caring
- teamwork
- common sense
- problem-solving

The ten megaskills as a total package constitute what many would refer to as the characteristics (behaviors) of effective leaders we have encountered.

REFERENCES
Computer Technology Resources
The Computer of "Your Future"

If you've been considering the purchase of a new computer or maybe your first, you're probably asking yourself "Which computer should I buy?" "What features should it have?"

At the annual conference of the California Agriculture Teachers Association (CATA) a group of computer using teachers met to develop a minimum basic computer standard for agriculture programs in California. These recommended standards were developed to help answer the questions you've been asking. The answers are based on two functions, Power and Flexibility. They also address the needs of both hardware and software and provide teachers with an efficient computer system.

Power conjures up images of tire burning torque and a screaming engine. Our computers don't need that kind of excess; however they do need to work at least as fast as we do, provide enough money for expanded spreadsheets, documents and database programs, and furnish enough electrical power for components added beyond the "standard minimum configuration." Flexibility as it applies to computers means that they can execute many different tasks equally well, without having to be redesigned or reconfigured each time a different function is desired:

Hardware:
RAM - 512k-1.2 Megabyte (memory can be upgraded)
RAM (random access memory) refers to the amount of usable work space available inside of your computer. The fewer the Kilobytes (1000 of bytes) the smaller the work space. Programs being written for today's computers occupy more of the available work space, and often require more than twice the old standard 64-128K.
Disk Drives - 2 floppy drives (3.5 or 5.25)
- 1 Hard disk (40 Megabyte)
Disk drives are both storage devices and one of the links to the outside world for your computer. Two "floppy" drives allow the functions of copying disks, files and programs to be performed easily. A hard disk allows many programs to be loaded to a single drive, making access to them nearly immediate without having to handle additional floppies. Although 20 Meg hard disks are available, the small difference in price makes the extra capacity a desirable feature.
Monitor - Color graphics w/color graphics board
A monitor is much like a window; the better the view the longer you will want to look at it. Color not only adds another dimension to the images displayed, it also adds some additional graphics standards that are not available with monochrome green or amber. Graphic standards include CGA, EGA, VGA. (Composite color monitors similar to a TV have poor resolution and should not be used for long term computing.)
Modem - 2400 baud internal, "Hayes" compatible
This component allows your computer to "talk" to other computers via telephone lines. Information in the form of text and program files can be shared using information services and bulletin board systems. The speed at which the modem is able to communicate is a function of the Baud (bits per second). The terms Hayes compatible refers to the character set used to direct the functions of the modem. Most modems use this as a standard.
Printer - 200 cps, w/near letter quality feature, dot matrix
The printer like the monitor is one way of displaying the work your computer is able to do. Some printers are able to print faster (rated as "characters per second") or better quality then others. Dot-matrix printers are able to produce graphics for posters, banners, or small drawings. Also to be considered is the length of ribbon and ribbon life.

(Authors note: Processor or CPU speed could not be agreed upon without naming specific computers or excluding others. However, I feel that 10 mhz is a minimum operating speed that will provide most teachers with the performance necessary to operate efficiently.)

Computers can become obsolete when they can no longer perform the functions we ask of them or when software demands more from the system than it is able to deliver. Two features can be built into any computer that should prevent premature obsolescence: Power and Flexibility.
Developing Effective Adult Agricultural Leaders

Where policy issues are concerned, agriculture no longer carries the political clout of yesteryear. It lost one-half of its food producers in a recent generation.

While production skills were being honed to a sharp edge, leadership potential went virtually untaught. Few agriculturalists were challenged to look beyond the farm gate toward becoming effective leaders, spokespeople, and policymakers.

Some leadership training programs are in place, beginning with 4-H and FFA, and continuing into adult life through Young Farmers and Ranchers Educational Associations.

But, an urgent need now exists! We need more training that takes us beyond the world of agriculture and into the world of industry, labor, finance, domestic and international politics.

This article describes an innovative approach by agricultural and extension educators in one state to do something about the gap in public policy/leadership education for adults in agriculture. Emphasis is on critical concepts, with implications for agricultural and extension educators wishing to initiate similar programs. The agricultural educator is the linkage between citizen and policymaker, between academia and the "real world," and between learners and leaders.

The Program

Eight years ago, a group of recognized Nebraska agricultural educational, and business leaders were assembled by agricultural and extension educators. After examining various leadership development models, such as House (1981) outlined, and reviewing the essential elements for success in policy education by Howell (1979), the nonprofit Nebraska Leadership Council, Inc., was formed. The mission of the council is to enhance agriculture and rural life by developing leadership potential of agriculturalists, through a Leadership Education/Action Development (LEAD) Program.

The council directs the program in conjunction with the Agricultural Education Department, University of Nebraska-Lincoln, but most of the work is done through committees: academic, personnel, and resource development. More than 100 leaders across the state are involved in fund-raising, screening of candidates, or serving as resource people.

This program differs from other leadership training programs in age of participants, content and intensity. Each year, 30 Nebraska agriculturalists, age 25-40, are selected to participate in a two-year series of leadership seminars. Between October and April each year, seven three-day resident seminars are conducted for each of two groups on different college campuses across the state. The information and experiences center around human relations, communication, economics, fiscal and monetary policies, government and the political process, social/cultural understandings, environmental concerns, taxes, trade, and other issues having an impact on agriculture. Academicians and practitioners stimulate disciplined dialogue on public affairs issues.

Additionally, and uniquely, a two-to-three-week study travel seminar is held each year; one in the United States and the other abroad. They provide opportunities to observe and analyze interrelationships of, and decision-making by, executives in agriculture, industry, labor, and government. The foreign study creates an understanding of common concerns and interdependence of nations. Discussion with foreign governmental and business leaders and with United States Embassy officials afford contacts and competence in contrasting political systems, cultures, trade, and technology.

Direct dialogue with customers and/or competitors for United States agricultural products is provided. For exam-
ple, LEAD Fellows learned while in Asia why we’re unable to sell the Chinese and Japanese all the wheat and beef we’d like. Other LEAD Fellows came from Argentina and Brazil with a real concern about future competition from those “sleeping giants.”

Results

Public affairs education and leadership development programs increase confidence and problem-solving skills as well as involvement in policymaking positions. Rigorous internal and external evaluations of LEAD indicate significant gains in variety and levels of involvement and officerships in agricultural, economic and governmental activities. Participants gained greater commitment to persist in agriculture. They were more appreciative and understanding of interrelationships within and outside of agriculture — less parochial in attitude. They were more tolerant, had a broader view and deeper perspective of factors affecting agriculture. Alumni appear to be more sensitive to national and international issues, and there was evidence of a greater general awareness of the role of agriculture in the world community.

Rapp (1981), reported an assessment of a similar program begun earlier in California, showed 840 policymaking roles in the state were held by 260 past participants — an enviable result, indeed!

After completing the first seven LEAD groups (210 fellows and their spouses), there’s no doubt that the Nebraska program is enhancing agricultural leadership. Many hold elected office. Others hold gubernatorial appointments on state boards and commissions. Still others have been elected to state producer, educational, and professional offices. Almost all have been sought out for civic, commodity, and educational leadership roles at local, and even national, levels.

Implications

Several elements emerged as essential for success of this unique public policy leadership educational program:

- The agricultural and extension educator plays the key role in linking leaders-in-training, academicians, and practitioner policymakers.
- Support results from widespread involvement, at the outset, of individual and business leaders and an unbelievable number of institutions of higher education.
- Promotion is essential to attract the appropriate quantity and quality of applicants.
- Participants with proven leadership potential and concern for public affairs must be selected.
- Program design should emphasize analysis of public issues, over a two-year period, and include intensive as well as extensive dimensions.

Conclusion

Agriculture and the nation are the ultimate benefactors of speeding up the process and making more effective policymakers of agricultural leaders. Support is available. Agricultural educators are “natural” prime-movers for such programs. They can link leaders-in-learning to leaders in the “real world.” They’re the critical connection in the trium for training and public policymakers.

Several states have started programs of this type. If you don’t have one in your state, give some thought — and “grass roots” urging — to developing one. Additionally, similar programs are being started by agricultural educators at local/county levels.

(Continued on page 19)
Teaching Tips
Etiolate Banded Cloning

Robert Palmer, Industrial Science and Technology Education, Colorado State University, details the steps to increase the propagation of woody plants through stem cuttings. He describes how to dramatically increase the propagation success rate of cuttings from hard-to-root woody plants.

Seed grown plants do not always replicate the characteristics of the parent plant. On the other hand, stem cut seedlings exhibit the exact parent characteristics, but reproduction from direct stem cuttings is extremely difficult to accomplish. The mortality rate usually exceeds 95%.

Etiolate Banded Cloning dramatically increases the success rate of propagating from cuttings, yielding as much as a 50% success rate on difficult-to-root plants.

Etiolating not only causes a plant to whiten by excluding light, but also it provides the key to plant cloning. Etiolation increases the stem's sensitivity to the root hormone, auxin, which is produced naturally in the tips of the growing stems. Etiolated tissue is softer, undifferentiated tissue with less fiber and lining content than untreated tissue.

Bandaging, the second step in the process, preserves the etiolated tissue. It scarifies the tissue, stimulating proliferation of callus cells needed for root growth. Finally, a method of cloning is needed. The following six steps show the entire procedure for the Etiolated and Banded Cloning process:

Step 1: Select a healthy parent plant. Prune, fertilize and water a tree for one growing season before taking the cuttings. A young, actively growing tree will increase the propagation success rate.

Step 2: Establish Etiolation. Place a dark, opaque bag such as two black plastic trash bags, over the branches to be cloned. Leave the bags open at the bottom and cut a few ventilation slits at the top to prevent over-heating and cooling the plant. Start this step when the buds are beginning to break open in the spring. Continue etiolation until the stems have elongated about two-three inches and the new growth appears light or pale in color, tender and succulent. Inspect the stems daily.

Step 3: Band. Cut 3/4" wide black Velcro into 1-1/2" strips. (Velcro can be purchased at fabric and sporting goods stores.) Dust the Velcro with root hormone (auxin). Rootone, a common brand of root hormone, is sold at most garden centers. Apply the bands of Velcro at the base of the new etiolated growth by sandwiching the stem between the hooks and loops of the Velcro. Squeeze the Velcro firmly with your fingers so the band will not slide on the stem.

Step 4: Remove the Etiolation bags. Begin removing the bags after banding and continue bit-by-bit over a period of one week. Slowly roll the bag up to avoid sunburning the plant.

Step 5: Prepare the cuttings. Remove the bands two to six weeks after banding. Cut the stems where the new banded growth begins. Dip the band strip portion of the plant in a dish of root hormone powder. Place the cuttings in a 4" container of standard potting soil.

Step 6: Fertilize, fungicide, and bag cuttings. Mix dry powder fertilizer at the label recommended rate in a container. Captan fungicide should be added to the solution to prevent fungus from killing the plant. Pour the solution into the 4" container until the solution soaks through the container. Next, place the entire plant in a clear plastic bag and tie the bag at the top. Inspect daily. Place the bags in a warm, sunlit room. Do not place the plants in direct light all day or they may cook.

In summary, etiolating, banding and cloning is an effective, simple method for increasing the propagation rate of stem cuttings in difficult-to-root woody plants.

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Leadership Development

(Continued from page 3)

holistic approach to problem-solving appropriate for dealing with messy problems?

It is time for agricultural education to give serious consideration to leadership development in such a way as to enable and empower graduates so they can provide effective leadership. This challenge is too important to leave to chance and assume that it will somehow occur if the student pays his/her FFA dues.
Leadership For Contests
or For All Students?

The products of effective agricultural education are
students who are employed, good citizens and successful
group members. The agricultural curriculum, supervised ex-
perience, and the FFA are vehicles/methods used to develop
good self concept, occupational competence and community
membership skills.

One of the strengths of secondary vocational agriculture
has been the use of the FFA to teach leadership and citizen-
ship. The skills taught in the FFA have contributed to the
personal development and social skills of youth since its
founding in 1928.

Therefore, effective programs would assure that students
receive leadership development opportunities. It would then
be expected that students receive leadership development op-
opportunities through formal FFA competition and classroom
experiences. Some might measure program effectiveness by
student performance in FFA leadership contests. Is this a
reasonable sole criterion? Are there better criteria?

Are Some Students Left Out?

Many agriculture teachers are very successful at
“polishing” contest participants for public performance.
However, have we neglected those students not in contests?
Have we made certain that every student participating in
agricultural education, regardless of FFA membership, has
demonstrated minimum levels of leadership competencies?

Examining the following competencies might assist in this
evaluation.

Ten MINIMUM Student Competencies
for Personal Development

To assure personal development skills each student enroll-
ed in agriculture should have received related competency
instruction and should have:
1. Demonstrated proper dress and grooming for a varie-
ty of situations.
2. Demonstrated proper table manners.
3. Introduced themselves to an adult and to another per-
son their own age.
4. Carried on an appropriate conversation with an adult.
5. Written a thank you note and word processed a thank
you letter.
6. Given a written speech and an extemporaneous
speech.
7. Seen and heard themselves giving a presentation on
a VCR.
8. Prepared a resume for job application.
9. Written a letter of job application.
10. Experienced a job interview.

Ten MINIMUM Student Competencies
for Group Membership

Effective group and organizational membership skills
should be developed by agriculture students. Ten competen-
cies addressing the skills that should be acquired are listed
below. All students enrolled in agriculture should have
received relevant instruction and have:
1. Memorized parts in FFA ceremonies and delivered
them in the classroom or in public.
2. Correctly introduced someone to a group.
3. Acted as a host at formal functions such as banquets
or award programs.
4. Worked effectively as a member of a committee.
5. Chaired a committee meeting working on an
assignment.
6. Spoken using a microphone or other amplification
equipment.
7. Planned a social event or a meeting in conjunction
with others.
8. Made a correct main motion and an amendment to
a motion in an FFA meeting or classroom
demonstration.
9. Correctly debated in support or opposition to a mo-
tion before a meeting.
10. Demonstrated chairing a motion, taking a vote and
responding to a question of parliamentary privilege
in a meeting or classroom situation.

FFA chapters may also be evaluated on the leadership in-
struction and FFA activity participation designed to assist
individual members and non-member students enrolled in
agriculture courses. One way might be to examine the
percentage of participation in key FFA leadership develop-
ment contests and activities. How does your FFA “measure-
up?”

(Continued on page 13)
Practicing Leadership Concepts in Agricultural Education

Leadership development has been an integral part of the vocational agriculture program since 1928. Teachers of agriculture have generally accepted leadership activities as a basic and fundamental part of the program. With this in mind it seems appropriate to ask — what role does leadership development play in the total school program?

While discussing purposes for establishing public education in the United States, Hamlin (1955) stated: "reasons appeared to have been (1) to hold together a nation loosely bound that had recently attained its independence and might lose it unless more internal cohesion were attained, and (2) to help in preparing a special kind of citizen for a special kind of country." Today it is apparent that a literate and educated society provides our country with a mechanism for attaining the internal cohesion mentioned by Hamlin. It is also apparent that the special kind of country cited by Hamlin is "democratic." Many writers agree that democracy requires highly educated and literate citizens. While addressing the National Associate of State Universities and Land-Grant Colleges in November of 1987, Walter Cronkite, CBS News Special Correspondent, stated:

Our ability to continue as a viable democracy is threatened by voters who don't know what the greenhouse effects are ... All governments, even those such as ours that operate under the rubric of democracy, always, in fact, have been aristocracies of the learned. Leaders tend by heavy majority to be among the better educated. It is the degree to which the less educated population is able to intelligently select those leaders that determine the degree to which aristocracy is diminished and democracy is enhanced.

(cited in National Enrollment Workshop For Colleges and Schools of Agriculture, 1987).

Developing leadership is not only important for society, it is important for students to become knowledgeable about the democratic process and become active participants. Leadership skills will allow individuals to participate in decision-making in their communities and provide them with skills that will enable them to solve problems associated with their daily lives.

Selected Leadership Concepts

Understanding individual behavior is very important for developing and implementing leadership programs and activities for secondary students. Maslow (1975) indicates that needs of the individual are a primary and very influential force guiding human behavior. Maslow's model is shaped like a pyramid and is referred to as the "hierarchy of needs." Maslow maintains that individuals prioritize their needs from physiological to psychological — physiological at the bottom of the pyramid and psychological at the top of the pyramid. According to Maslow, before one becomes concerned with items towards the top of the pyramid they must have satisfied all needs below the need presently being considered. Physiological refers to biological needs such as food, clothing, and shelter. Psychological addresses one's feelings about self, life, and surroundings, i.e., ego and self-esteem. According to Maslow, one progresses from physiological to psychological needs — the physiological being prioritized first. The top of Maslow's pyramid represents a self-actualized person. Getzels and Guba (1957) propose a model that explains individual behavior in terms of needs disposition and the interaction of needs disposition with normative expectation. The model proposed by Betzels and Guba indicates that the needs of the individual interact with normative expectations of institutions in society and yield observed behavior. The model proposed by Getzels and Guba has two dimensions — Nomothetic at the top and Idiographic at the bottom.

Figure 1 — Nomothetic and idiographic dimensions of social behavior.

Maslow, Getzels, and Guba explain individual behavior in terms of individual needs and the interaction of these needs with the environment. Lewin (1948) elaborated on the environmental conditions influencing/guiding behavior. Lewin indicates that individuals are members of many different groups and each group establishes normative behavior for its members. Depending upon the group, formal and/or informal sanctions are also established to punish non-conformists and reward conformists. Often, many members experience extreme anxiety in an effort to be accepted by
the group. Acceptance is dependent upon member conformity. The normative behavior established by each group has a tremendous impact upon observed behavior according to Lewin.

The sociologists explain the effect of environment by proposing the Sociological Approach to leadership development (Griffith, 1979). The Sociological Approach to leadership development indicates that behavior of individuals is a function of the group and situation. They further indicate that leadership is a group phenomenon that will vary according to the situation or even the same situation at different times. The implication is that leaders will experience varied success in different situations at different times, and that one leader may be successful in one situation and unsuccessful in another.

Some writers explain leadership by attributing it to specific characteristics of the person. These theorists believe that certain individuals are born with certain traits or characteristics that set them apart from the general population. Obviously the above discussion is theoretical, however, these concepts provide insight into how the vocational agriculture teacher may plan and implement a successful FFA program for secondary students. The following provides ideas on how the theoretical concepts may be used for practical application.

Practicing Concepts For Leadership Development

Whether we realize it or not, our behaviors are guided to some extent by what we believe. The conceptual approach to understanding human behavior provides us with a vehicle for crystalizing the things we believe and helps to establish clear and consistent parameters for practice. Basic to understanding how leadership concepts may be utilized to improve educational experiences for secondary students is the idea that these experiences are supposed to be part of a planned instructional program.

The concepts discussed above have two implications for practice relative to providing insight for the teacher to develop and implement a successful leadership program at the secondary school level. The first suggestion implies that the teacher should take the responsibility for creating an environment conducive for the students to practice the democratic process. The second suggestion is for the teacher to insure the development of a program of work consistent with the needs of local students.

The teacher cannot effectively teach/promote democratic principles if he/she is an autocrat, or if he/she allows a few students to take control of organizational activities which exclude the majority. It is incumbent upon the teacher to "teach" parliamentary procedure to all students so that they will have the necessary skills to participate in meetings and activities. The conceptual framework for participation involves: (1) the development of positive student self-concept, (2) the development of student self-confidence, (3) providing incentives for student productivity, and (4) helps students to understand how they fit into the total system as an individual. Other specific suggestions are as follows:

1. Hold regularly scheduled meetings with a pre-planned agenda. This means that all students will be placed on active committees. To get and maintain interest the students must feel that the chapter is theirs and NOT the advisors. The teacher should promote a WE, US, and OUR spirit among the members.

2. The teacher should take the responsibility for establishing a system that provides an equal chance for all students. This implies that the teacher will NOT allow students with certain attributes (high socio-economic status, high degree of intellectual or physical ability) to overshadow the other students. Henson (1988) indicates that the courts can grant equal opportunity through legislation, but only the teacher can provide an equal chance.

3. The teacher should establish an environment so that the acceptable norm is productivity with a commensurate reward system.

Developing a program of work consistent with the needs of local students is at the root of establishing a successful local chapter. Students are concerned with relevance. Because the teacher is excited or interested in an activity or subject does not necessarily mean that the students are also interested or excited (Henson, 1988). It would be wise for the teacher to remember that we generally work with groups, but we teach "individuals." A program of work based on student needs will insure interest and participation, create an environment for student success, provide students an opportunity to be rewarded for productivity (role expectation translated into observed behavior), and provide students an opportunity to work together to achieve common goals. Other specific suggestions are as follows:

1. Teacher should focus on developing a variety of local activities. State and national activities will NOT provide for all students.

2. Teacher should become aware of students' home environment and other intra- and extra-school influences acting upon the student.

3. Facilitate the development of challenging but achievable objectives for the chapter.

4. Provide for formal and informal recognition of student accomplishments via, local newspapers, banquets, etc.

(Continued on page 23)
The Teacher As A Situational Leader

As we approach the twenty-first century, the only certain aspect about our lives and the way we do things is that change will occur. Even to people who have learned to live with and accept change as a part of life, the changes of the next century will be dramatic. Across the country schools are in the process of preparing students to live as adults in the twenty-first century. The question is obvious - how do we prepare students to deal with change? The answer: in the same manner in which vocational agriculture programs have always prepared students - through leadership development. Just what is leadership development?

Leadership

Not even the great thinkers and philosophers can agree on a definition of leadership. According to some, leadership seems to be an enigma that defies definition; there is no way to predict when and in whom it will appear (International Business Machines). In fact, if any group of people is asked to define leadership, the answers will be almost as diverse as the people in the group. Countless examples can be given of great leaders who have arisen from backgrounds that seem detrimental to the development of leadership abilities. Philosophers have for many generations debated the issue as to whether leadership is a trait that is inherent or learned. Agricultural educators have always contended that leadership is a trait that can be successfully taught. High school agricultural education programs are designed around the model of the four-part program with each component being interspersed and dependent on the others. The classroom teaches the theoretical framework; the laboratory teaches the practical application of the theory; the experiential component (SAEP/SEOP) teaches practical experience in a real-life setting; and the FFA teaches leadership. Perhaps the reason for disagreement arises from the mistaken premise that leadership is a single entity and that leaders act in a specific way each time the need arises. Actually, effective leadership entails a variety of leadership styles that can be adapted to fit the situation. The Center for Creative Leadership (CCL) in Greensboro, North Carolina has developed a model using four styles of leadership that fits very well into the concept of teaching leadership through the FFA. The CCL labels their model "situational leadership."

The Model

To effectively use the CCL model, teachers must realize that in order to teach leadership, they themselves must be leaders. As in any aspect of teaching, the concept of "learning by doing" must be guided by the teacher who acts as the role model. The idea is that a style of leadership that is effective in one situation might not work in another. This is particularly true if the followers, such as high school students, are diverse in ability, motivation and self-confidence. According to the design of the Center for Creative Leadership, there are four types of leadership styles employed. The styles differ in the method and degree in which a leader guides the actions of the followers. In other words, the style used depends on the degree to which the followers rely on the leader for guidance and support.

The Structuring Style

The first style of leadership is called the structuring style. This style of leadership should be used with the followers who have limited abilities, are unmotivated and/or lack self-confidence. How many beginning ninth grade students fit into two or all three of these categories? Even if students are highly motivated, they are usually lacking in the experience, ability or self-confidence to succeed in the goals they would like to set for themselves. Structuring means nothing more than giving all of the necessary instructions concerning what, how, when, where and to what degree the task is to be done. Once the instructions are given, close supervision is provided to guide students through the task. The idea is to furnish enough support to ensure the student’s success. The basis of all leadership is the self-confidence that can only come about through success. If students constantly fail, their self-image will always be low. One of the main strengths of the FFA has been that students are actively involved in all phases of the various activities. Through their participation, students learn to accept responsibility and gain in self-confidence as they succeed in accomplishing their goals. Most often, these students enter the program without the self-confidence to accept the responsibility of a leadership role in an activity. In this case, the leadership style of the teacher is critical. Enough structuring or support should be provided through the teacher’s leadership style to ensure the success of the students. For example, students who need structuring should be given a committee assignment through the chapter program of activities that will provide them with the opportunity to plan and conduct an event. Obviously, the students lack the ability, self-confidence and maturity to do the job on their own. The teacher must monitor closely and guide the students through each step of the activity. This calls for a lot of time and effort on the teacher’s part, but it is a necessary step in the process of leadership development. When the students succeed at a task, their self-confidence is given a boost. Obviously, this leadership style should not be used with students who have the ability and self-confidence to perform the tasks without such tight structuring. It is, therefore, important in the process that the
teacher recognize which students are in need of this style and provide the appropriate amount of guidance.

The Coaching Style

The second style of leadership is the coaching style that might be thought of as the second step in the process of leadership development. This style is used when the students are highly motivated and possess some degree of ability, but are not ready to be left entirely on their own. A good example of this style is our use of the public speaking contest. A student prepares a speech, delivers it and receives feedback from the teacher. The student must have enough self-confidence to be able to handle criticism. A degree of self-assurance should have already come about through the use of the structuring style that has given the student enough success that he/she is willing to attempt increasingly more difficult tasks. Through the use of this style, the teacher is given an important opportunity to teach students how to deal with failure. The coaching style allows the development of close relationships between student and teacher. The students are guided through tasks and as failure occurs, they are advised in a positive manner not only of the failure and why they failed, but also how to correct the failure. So the process is attempted over and over again until the students have mastered the task to the best of their ability.

The Encouraging Style

The third is the encouraging style which is used when students have developed enough ability and self-confidence to attempt activities on their own. The teacher remains in the background but close at hand to lend encouragement and also to quickly repair the damage if the students fail. At this point the students become able to accept responsibility for chairing a committee or directing a project. They aren't quite to the point where they can be left entirely on their own but are now beginning to be able to accept responsibility for any decisions made. Highly motivated students always respond positively to encouragement. This style of leadership works especially well with those students who are motivated and are willing to initiate and conduct activities.

The Delegating Style

The fourth and last style is the delegating style. This style is by far the easiest for the teacher. By using this style, students need to be told only what to do and the task gets done with very little, if any, supervision. To be able to use this style should be the goal of all teachers who are striving to develop leadership in their students. When teachers are able to delegate responsibility to their students, it will mean that the students have matured into the leaders who have the confidence in themselves to perform tasks and take full responsibility for the success or failure of the effort. Effective chapter officers should have reached this level.

Summary

Of course, the process would be greatly simplified if all students would fit neatly into categories where teachers could use the structuring style with the freshmen, the coaching style with the sophomores, the encouraging style with the juniors, and the delegating style with the seniors. However, students are much too diverse in their abilities, maturity level and motivation to be grouped according to age or class level. Teachers generally find that some seniors will need the structuring style every bit as much as the entering freshmen. On the other hand, on rare occasions, there are freshmen who enter the program with the ability to operate under the delegating style of leadership.

Sometimes a student with whom the delegating style has been used in the past will have a need of the structuring or coaching style as different situations and needs arise. The point is that teachers should recognize this diversity in students and utilize the style of leadership best suited for the students at that particular time and situation. Flexibility has always been one of the strongest characteristics of the agricultural education program. Leadership can be taught if teachers will realize that they themselves must first be leaders and use the proper leadership style to fit the student and the situation. If students enter the program in need of the structuring style of leadership and leave the program under the delegating style, they will indeed possess skills that will equip them to cope with the changes of the next century.

REFERENCES


Leadership for Contests or
For All Students?

(Continued from page 9)

Ten MINIMUM Chapter FFA
Activities and Contests

(percentage of all students enrolled participating)

9. State FFA Officer Tour Participation
10. Meetings with Other Chapters

Agricultural education is charged with developing student leadership capacities. It is imperative that ALL students receive instruction and develop personal and group skills.

The agricultural subject matter we teach changes. Leadership skills do not. These remain with students forever. If they are not received by students, teachers have not met their obligations and the students have been short-changed.

Enrollment in agriculture implies that each student will have leadership education because effective graduates become employed, are good citizen and successful group and organization members and leaders. FFA is the instructional vehicle which facilitates leadership instruction. Let’s make sure all agriculture students are offered a “seat on the bus.”
Four Steps to Effective Leadership

Teacher effective leadership is an important goal in the agricultural education classroom. Agriculture teachers often use definitions and lists of characteristics as the basis for teaching leadership. Modern studies of sociology and psychology have defined leadership in many ways. History offers examples of what great leaders have accomplished. Modern leaders are often identified by characteristics such as sense of purpose, power, self-confidence or ability to make decisions.

A casual observation of leadership often views a supervisor and a subordinate. However, effective leaders will report that they seldom "tell" the subordinate what to do. A leader's effectiveness depends on how the leader interrelates with situations in which he or she is likely to organize and define a subordinate's role. Leaders often explain activities which each subordinate is to perform or each task that is to be accomplished. Leaders are characterized by abilities to establish patterns of organization, channels of communication, identify means of getting jobs (tasks) done and ability to provide directions in critical situations.

Leaders must maintain personal relationships with members of their groups through open communication channels, providing socio-economic support and facilitating desired behavior or outcomes of the group. The effectiveness of a leader's behavior may depend on situational decision-making. Effective use of parliamentary procedures often provides guidelines for leadership group decision-making. The appropriateness of a leader's behaviors in critical situations often are the events which determine the leader's effectiveness. The effectiveness and consistency of an organization's performance is often the measure of a leader's success.

Leadership

Leadership can be defined as an attempt to influence an individual or a group. It is an influence process which could only be done through power. Leaders who understand and know how to use power are more effective than those who do not or will not use power efficiently. It is important to understand that to successfully influence the behavior of others, the leader should understand the impact of power in different situations and with different individuals. The use of power is an important component of successful leadership.

One of the most effective approaches that plays a major part in the educative process of leadership is role modeling. Teachers should endeavor to be good models for their students. Not every individual can be a leader in all situations, however, each person should be able to identify a leader by knowing the essential qualities.

Qualities of Leadership

The following steps could be a guide to identify individuals with leadership qualities. Ability to:

- assist in developing individual goals which can be achieved by participants as a member of the group.
- explain the rules of the organization in a manner which will enable the individual to accomplish agreed upon goals.
- recognize and reward each individual for the level of achievement attained.

- distribute power to group members in a manner which facilitates performance yet does not allow one member to exclude others from activities.

Efforts to determine exactly the traits of a good leader are difficult. Attempts at scientific selection of leaders may produce a contemptible arrogance resulting from lack of awareness regarding the limitation of technical kinds of identification and selection. It should be realized that much is still unknown about human behavior. Past performance is (Continued on page 19)
Cooperation . . . A Different Twist

Agricultural education and the FFA has gained an excellent reputation for the leadership training that our students receive. Agriculture teachers incorporate a variety of activities into their curriculum which provide valuable life experiences for their students. Learning the basics of parliamentary procedure in the classroom and during FFA meetings gives agriculture students a real edge in life as they become involved in community and civic organizations. Such activities provide our students with some very basic skills. Students also learn self discipline, goal setting and how to make decisions when working with their supervised experience programs. Those who are interested in further improving their skills have opportunities to get involved in the various contests, including parliamentary procedure. However, FFA contests are not the ultimate test of a person’s leadership skills.

A way that the leadership development part of your program can be taken to an even higher level is by having agriculture students conduct leadership development programs and activities which include other organizations. This cooperative approach to leadership development can serve several purposes:

1. They (agriculture students) have another opportunity to further develop their own leadership skills.
2. They are given the chance to interact with members of organizations that have similar and dissimilar interests. This adds to their social skill development.
3. An activity that is done well can do nothing but enhance the image of your program. GOOD PUBLIC RELATIONS!!!

Who To Work With?

A natural choice for high school agriculture students to start a collaborative leadership program with is 4-H. The FFA and 4-H are organizations that are very similar in nature. The two biggest differences include the age range of 4-H (9 to 19 in most states), and the broader scope of projects available to 4-H members. These two differences can be a big advantage for your students as they try to develop their leadership ability. By encouraging your members to become involved (or continue their involvement) with 4-H, they will be able to expand their knowledge. But more importantly, they can serve leadership roles in the local 4-H club, providing guidance and serving as role models for younger members.

4-H members who may look up to that teen leader. This means that a good cooperative relationship between the agriculture teacher and county extension agent is needed. In many instances, there is a “perceived” rivalry between FFA and 4-H, when in reality they should complement, not challenge, each other’s program.

Other vocational student programs in your school present an opportunity for developing cooperative leadership activities. An excellent example of a statewide program that has been going on for several years is the All Ohio Vocational Youth Camp. This program has been offered annually since 1972. The original intent of the camp, according to Director Karen Reed, was to emphasize critical thinking skills and develop leadership. Over the years it has evolved into a strong leadership and professional development conference.

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Cooperation — A Different Twist

(Continued from page 15)

The conference involves all of the vocational youth organizations, with most of the planning being done by student representatives of the organizations. Reed states that some of the real student benefits from the camp include:

1. Many of the stereotypes that students have about members of the other clubs are eliminated.
2. State officers from each of the clubs have attributed a part of their success to having taken part in the program.
3. The students exhibit more maturity and experience a great deal of personal strength.
4. Many of the students have never been to a camp of any kind, so it's an added experience for them.

In the future they want to try and have "teams" participate from each school. The team would consist of at least one member of each of the organizations. By having a team at the camp they would be able to put together and implement a leadership development plan for their own school.

How about working with adult groups? Many civic clubs are on the lookout for programs and speakers for their meetings. You can really develop a strong support base for your program by providing speakers (your students) for meetings in the community, with just a few simple contacts. Many agriculture programs have successfully used community development projects related to BOAC which involve students working with adult groups in local communities.

If you have ever attended any civic club meetings, then you are well aware of the need for some basic parliamentary procedure training. Who is better suited to provide this training than your FFA members? The students could role-play a mock meeting, and explain how to use parliamentary procedure to make their meetings run more effectively. Here is just another opportunity that you have to showcase your students, give them a valuable experience, and at the same time provide a much needed community service.

Many communities have a Toastmasters International Club. The Toastmasters are committed to developing the public speaking skills of their members. You and your students can become involved with them as another means of improving your students' speaking skills. They have a variety of materials and activities available to their members designed to enhance their presentation skills. As your students become more confident in their own skills in public speaking, their poise and ability to stand in front of a group as its leader should improve.

Summary

Leadership development for our students does not have to be confined within the four walls of a classroom or the specific activities of the FFA. Cooperative leadership development efforts can help students broaden their understanding of others, improve their leadership skills, and make it easier for them to adapt and thrive in this ever-changing world. This in turn should improve your overall program. The leadership skills gained in an agricultural education program may be the most important skills that the students develop.

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Group problem-solving activities are an excellent means to get members of different organizations to interact and set the stage for the leadership conference. (Photos courtesy of Jeff Miller.)
Adapting the FFA in Urban Programs

The purpose of any leadership development program, whether in an urban or rural program, is to provide students with the communication and organizational skills necessary to direct the work of a business or organization. The tool most commonly used to provide leadership training is the FFA. Through the FFA and its many activities, we train students to identify goals and organize the steps necessary to reach those goals. This ability will serve them well as they progress in their lives and occupations.

Adapting the FFA

The delivery method for leadership training in both rural and urban vocational agriculture programs is largely the same. Officers are elected, a program of activities is developed and through the use of ad hoc and standing committees the program of activities (POA) is implemented. The delivery method may be similar in both instances, however, the specifics of each program's POA are not. Both types of programs will share similarities in that they participate in common events such as public speaking and parliamentary procedure contests. Both programs will function through the use of various committees.

However, the nature of the FFA activities will often reflect program curricular emphasis. Rural programs typically have as their curricular focus production agriculture. This is appropriate in light of the populations which they serve. Urban programs, however, frequently serve areas with more non-traditional agricultural occupations. Horticulture, agricultural finance, marketing and manufacturing as well as biotechnology industries frequently make up the urban agricultural economy. Consequently, the nature and scope of FFA events and activities should differ for the two types of programs.

FFA Contests

The first area where rural and urban programs will differ is likely to be in the judging contests in which each type of program participates. The key point here is that contests in which a particular chapter participates should be chosen based upon the content of the program's curriculum. Contests such as livestock and dairy judging may be appropriate for production programs but will be inappropriate or, at best, inadequate for many urban programs. Horticulture programs should focus on landscape management, floriculture and nursery contests, to mention a few. Other urban programs will focus on agricultural business management contests. In many cases, urban schools will be forced to develop their own local contests because state and national contests do not exist which offer competition for their students in their particular area of specialization. Teachers should choose to participate in and develop these contests which will motivate their students to excel in the subject matter being presented in their program.

Fund Raisers

Fund-raising activities should also be driven by instructional program direction. Often, fund-raising activities are viewed as ends in themselves. Raising money becomes the sole objective of the activity. While this is important from a practical standpoint, we all realize that leadership development takes place during these activities as well. Once again, the process of organizing and conducting fund-raising activities will be similar for both urban and rural programs; the specific nature of these activities will not. The key is for the curriculum to drive the activity, not visa versa. Production programs may choose to raise field crops and livestock for their fund raisers. Horticulture programs, on the other hand, should consider activities such as raising greenhouse crops and bidding on landscape contracts. The possibilities are endless and are limited only by program direction and the imagination of officers and teachers.

General Activities

In addition to FFA contests and various fund raisers, every vocational agriculture program participates in scores of activities each year. Whether in an urban or a rural program, the list of community activities, fairs, presentations and recreational events is endless. The driving force behind all these activities is to involve students in leadership activities that will prepare them for a career in agriculture. Towards this end, all programs — whether urban or rural — should involve students with local commodity groups, civic organizations and agribusiness. Urban program teachers need to be especially mindful of involving students with non-traditional agribusinesses and commodity groups such as landscape contractor associations, nursery associations, genetic engineering firms, and the whole host of groups that participate in the marketing of food and fiber.

Managing the FFA

Urban programs, by virtue of their demographics, frequently serve large populations. As such, they are often large, multiple teacher departments with extremely active

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Impact of Leadership Development in Vocational Agriculture

We in Agricultural Education have assumed for years that the leadership component of the vocational agricultural program and the FFA were important and that they made a contribution to the program and its participants. The above statement is the kind of assumption to which many individuals will ascribe subjective support and for which case study valuation is given. However, there is little quantitative data to substantiate this support.

Does leadership development in the context of a vocational agriculture program have an impact on those who participate, such that the past participants become active in leadership roles in their home communities? This becomes an important sociological and political question when one realizes that a little over two percent of the nation's workers are involved in production agriculture and an additional eighteen percent are working in agricultural services and support industries.

No matter how you add it up, agriculturalists are a minority in today's society when it comes to policy voting and consequential allocation of resources. Make no mistake about it, the availability of wholesome food is still an emotional issue. So are issues such as ground water quality, water availability, animal rights, and pesticide residue. Therefore, informed agriculturalists in positions of leadership throughout local communities, state and national governments may be essential for agriculture's survival.

A research study was conducted in Wallowa County, Oregon to determine the impact that three local vocational agriculture programs had on rural community leadership.

The sample for the study included all persons identified as community leaders, regardless of profession or background, by the advisory committee members of the local vocational agriculture programs located at Wallowa County. A modified Delphi system was used to identify 78 community leaders. The instrument used for the study was designed and tested for validity and reliability in a similar study in the state of Arizona.

Some of the results of this study provide an indication of the impact programs of vocational agriculture have had on the leaders in Wallowa County.

Educational Pattern of Leaders

Nearly all of the identified leaders (98%) had completed high school. Fifty-nine (59%) percent of the community leaders were self-employed in agriculture on a full-time basis. Over three quarters (79%) of the identified community leaders had attended a postsecondary educational institution. Most of these individuals (69%) had attended a four-year institution of higher education.

Surprisingly, 57 percent of the leaders who attended a postsecondary school completed a degree program and received a degree. This compares with a national figure of approximately 34 percent completing a degree program. This may indicate some degree of dedication and perservance for individuals in leadership roles. Another surprising finding was that 62 percent of the postsecondary degrees earned by community leaders were in agriculture.

Vocational Agriculture Program Participation

The identified community leaders enrolled in vocational agriculture during their high school careers tended to be very active participants. Eighty-eight (88%) percent of the community leaders who were enrolled in vocational agriculture were involved with the FFA and the leadership activities of FFA. Thirty-seven (37%) percent of the identified community leaders involved in the FFA organization had received the State Farmer Degree. Again, this indicates that the leaders were achievers in high school and active participants in the FFA.

Popular FFA leadership activities participated in by the recognized community leaders while in high school included: Parent Member Banquets (68%); Leadership Contest (64%); Judging and Field Day Contest (62%); and Service as an FFA Chapter Officer (53%).

Impact on Leadership Positions

The recognized community leaders in Wallowa County were involved in a variety of organizations and held leadership positions locally and on both state and national levels. Community involvement included membership and/or officer position in such organizations as: Farm Bureau, Grange, Farmer Cooperative, Soil Conservation Board, Agricultural Stabilization and Conservation Service, school boards, and service clubs. Several of the leaders held elected political offices.

Eighty-six (86) percent of the community leaders who took vocational agriculture in high school felt that it had directly influenced their participation (desire to participate) in community leadership positions. Further, 70 percent of the leaders felt that what they learned in vocational agriculture influenced their effectiveness as a community leader.
Conclusions
Vocational agriculture influenced community leaders to stay in high school. Attendance at a postsecondary educational institution was very prevalent among the leaders and a higher than expected percentage had earned degrees.
Community leaders felt that participation in vocational agriculture helped them become good leaders. Community leaders were also leaders in FFA and other school organizations while in high school.
Rural community leaders were active in their communities. Several local leaders were also leaders on state and national boards.
Vocational agriculture training has had an impact on the leadership of Wallowa County. The majority of local community leaders have had vocational agriculture in high school and attribute that training to their ability to lead and participate in community functions.

Recommendation
Vocational agriculture teachers should stress the value of leadership activities in FFA. Vocational agriculture program graduates should be encouraged to continue their education beyond high school as well as being encouraged to participate actively in community functions which require leadership ability.

The counselors and administrators of high schools should be made aware of the fact that leadership training in vocational agriculture is valuable to the student and the local community. Leadership development gained through vocational agriculture is used by its recipients all of their lives.

Four Steps to Effective Leadership
(Continued from page 14)
critical of leadership ability. Despite the problems in defining leadership, we all have sensitivity to recognize leadership and the existence of great leaders. We can always recognize them.
A leader's approach in tackling any task must show purpose, responsibility, understanding, consideration, fairness and appropriate humor. Democratic leaders through modeling, sharing and "leading out" always help the followers/subordinates to exercise their potential for becoming more responsible.

Effective leadership occurs when talent and commitment is brought in line with effective use of authority. Individuals who show promise of this quality should be allowed ample opportunity to lead.

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Developing Effective Adult Agricultural Leaders
(Continued from page 7)
As we move into a new era of leadership, agriculture must be prepared to make its voice heard in the various state legislatures, in the halls of Congress, the White House and around the world.

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Agricultural Mechanization
Technology Education and Agricultural Mechanization

The two previous columns I have written have focused in on what I believe are two very important ingredients for the future success of agricultural education and agricultural mechanics education in particular. While I have received little overall reaction to the previous columns, I continue to contend that our abilities as educators to maintain a state of professionalism and adapt to changes are extremely critical factors not only at the present time but more importantly for the tasks before us. The two previous columns were intended to set the stage for a series of columns to come which will attempt to investigate the changing environment in which we teach. The styles and methodologies of the two preceding columns were designed to attract readership and stir some discussion and interest. However, at this stage I am a bit perplexed by the overall reaction, or lack of reaction. There must exist a number of professionals in our field who continue to believe that a column devoted to agricultural mechanization should focus on such topics as how to properly tool fit a screwdriver. I believe the future of agricultural mechanics education at all levels is such an important concern that we must spend some valuable time and effort to explore current issues and plan strategies for the future.

I am beginning to believe that the ultimate fate of these columns will be that sometime in the future an unsuspecting graduate student, who is having difficulty applying the abstract principles of statistics to real life situations, will be given the somewhat dubious and arduous task of interpreting and analyzing this series of columns. While I can sympathize for that individual, the only real suggestion I can provide is that maybe one should take the time and effort to attempt once again to master statistics.

There are some very dramatic changes occurring in the environment in which we teach. We need to look no farther than our desks to see the primary reason for these changes, the computer. I can remember being in my first computer class in the early seventies and hearing the instructors predict that within twenty years the computer would change the way we do most everything in our daily lives. Well, the only problem with their prediction was that the changes have occurred much more rapidly than they had anticipated. The computer has brought us face to face with technology.

Technology is rapidly changing not only agricultural mechanization but also the way we teach. Recently there has been both state and federal legislation introduced to incorporate technology into the education system. In my own state, Industrial Arts Education has been fundamentally legislated out of existence and is being replaced by Technology Education. The future of agricultural mechanics education will be dependent upon our abilities as professional educators to adapt our instructional programs to the changes presented by the advances of technology.

By Joe G. Harper, Special Editor
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Agricultural mechanics educators should not feel threatened by the changes in education towards technology, but rather should welcome and embrace these changes. First, let us consider what technology is. Technology has been defined by Webster's Dictionary as being "applied science." For example, if you as a teacher teach your students the concepts of temperature, you are teaching science. To go one step further, if you teach your students how to control the temperature then you are teaching technology. Science and technology go hand in hand. In order for you to be an effective teacher of science you must demonstrate the application, and to be an effective teacher of technology you must apply the concepts of science.

Many of you as teachers of agricultural mechanics are in the process of incorporating science and technology into your programs. In today's world environment, if our students are unable to understand the fundamentals of how things work, then they will have a difficult time trying to work with modern equipment. Our agricultural mechanics laboratories are an excellent resource that we should be using to teach the application of science which is technology. As an example, if you are teaching students how to build concrete structures, then you have several opportunities to teach technology. For one thing, your probably teach your students the effects of the water to cement ratio upon the strength of the concrete. But, are you allowing your students to experiment with the ratios to determine the actual effects? If you merely tell your students the effects of the water to cement ratio upon the strength of concrete, then that is a recall form of cognitive learning. However, a much more effective method of teaching the lesson would be to teach the chemistry of the chemical reaction between water and cement, allow the students to hypothesize the effects, conduct an experiment, and see the actual effects for themselves. This type of instruction falls into the problem-solving and application levels of cognitive instruction with the incorporation of experiential and psychomotor learning. Many of you will contend that it is not nearly as important that a student understand the curing of concrete as it is that the student be able to properly pour the concrete. I will contend that

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Instructional Materials
My Lead or Yours?

It really has been a whirlwind decade in the instructional materials industry.

Microcomputers took center stage in the late '70s and early '80s and turned our world upside down. Curriculum experts were appropriately enthusiastic, but I believe the computer has failed to live up to the promises made about revolutionizing education.

Don't get me wrong... computers are here to stay, but in many cases they have only been used as electronic books, with little real imagination. They have undoubtedly had a much more profound influence on business than education. It is astonishing how much money has been spent on computer equipment and software, and how under-utilized much of it is.

Most software for agricultural education has been "drill and practice," a good method to reinforce knowledge, but it doesn't really teach anything new. Some programs try to integrate the entertainment aspect of video games, but when you compare the quality of graphics and animation in these programs with a typical arcade game, well... you can see where the money is. These programs often look silly and adolescent by comparison.

Like many other vendors, Vocational Education Productions (VEP) jumped on the software bandwagon, caught up in the excitement of a coming new age, then waited for the wave of innovative programs to arrive. It didn't. This year we are quietly leaving the software arena to fully pursue an educational medium that we strongly believe to be the most useful classroom aid available today - videotape.

Now that video players are almost universally available, there is a huge demand for educational videotapes, much like the demand for software following the introduction of the microcomputer. VEP has experienced unprecedented growth since turning to videotape production.

Because they grew up with it, students find video a very comfortable instructional format. Sophisticated graphics and animation are now within the reach of even small producers, so there is no longer an excuse for poor quality. Video is the instructional format du Jour.

So... it's video today, but what is the next coming innovation in instructional materials for agricultural education?

Undoubtedly, it is a marriage of the best of video and computers. For example, combine the computer's ability to interact with the user and to patiently ask and answer questions, with video's capacity to take a viewer anywhere in the world and use whatever technical enhancement is needed to clearly illustrate a point. Add the ability to instantly access a given visual segment depending on viewer input, change the sequence of presentation, and multiple images or freeze-frame with perfect clarity, and what do we have?

It exists today and it's called interactive video, interactive multimedia, Compact Disc-Interactive and similar names. What it means is a combination of high-quality sound, live-action video, still images, text and animation integrated into a computing environment. It's a videotape, computer, book, audio cassette, slide projector and teacher rolled into one. The educational potential is enormous.

Interactive multimedia offers all the visual benefits of video, but because it is stored on a laser disc or compact disc (CD), you can randomly access any sequence within seconds. You get excellent sound quality (an often overlooked informational medium), superb animation capabilities, and the "intelligence" of a computer to control the whole process and branch out to different segments depending on user responses.

Here's the real advantage of interactive multimedia: thoughts lead to others thoughts, but seldom in a linear fashion — videotape is a perfect example of linear packaging of information. A laser disc, however, can store 54,000 frames per side, which amounts to a lot of still shots and several substantial video sequences, and any frame or sequence can be accessed in any order.

A student can explore the information on the disc in the way that works best for them, and since everyone learns differently, interactive multimedia is a more natural learning environment than anything that has existed before. It encourages curiosity and allows students to explore and arrange information in a way more suited to their individual learning styles.

A recent study by Optical Data Corporation confirmed that most people learn better if they see and hear the information simultaneously. A survey of 59 schools nationwide found that 87 percent of responding teachers felt the use of laser discs in class improved student motivation. Improved content mastery was reported by 76 percent of these teachers, and 72 percent observed greater use of scientific thinking skills among pupils.

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Agricultural Mechanization Technology Education and Agricultural Mechanization

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in today's environment there needs to be a balance between the science and the vocation and that is the basis for technology.

Technology education and agricultural mechanics form a team. In order for agricultural mechanics education programs to be effective there must exist a balance between teaching science, technology, and vocational skills. Our students must be able to understand how things work, be able to apply that understanding in a practical manner, and also be able to complete the eventual product or process. What technology education does for us in agricultural mechanics education is provide the means by which our students will be able to transfer their education to the real world. In other words, it affords us opportunities to teach our student how to think.

In conclusion, I believe that technology education and agricultural mechanics form an educational team. However, for those of you who still would like to know how to tool fit a better screwdriver, I offer the following suggestions:

1. In order to grind on those new Torx (trademark) screwdrivers you are going to need a really small grinder.
2. If you buy quality screwdrivers in the first place, you do not need to tool fit them nearly as often.
3. If you use the screwdriver properly, then you probably will not have to refit the screwdriver.
4. Make sure that you understand and practice 2 and 3 above because that's what the term technology education and agricultural mechanics is all about.

Instructional Materials My Lead or Yours?

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So how do you buy programs that fit your needs? Very good question, I have not yet seen much interest in this medium in agricultural education, therefore, there aren’t many relevant materials currently available. It’s the old “chicken or the egg” question. As a producer of instructional materials for ag educators, I feel VEP has an obligation to begin providing materials in this superior format. But on the other hand, is anyone out there ready to buy? That’s a serious financial consideration for us.

We hope to test the water this year by offering a disc of over 8,000 slides of plants, insects and plant damage caused by diseases and air pollution. Imagine storing 8,000 slides and being able to find the specific ones you need instantly.

Where do we go from here? We could either package complete programs which teachers purchase and use “off the shelf,” or we could produce laser discs of images and video sequences which the teacher can utilize in an infinitely variable number of ways, controlling it with the computer hardware and software they prefer. Apple Computer’s HyperCard is uniquely well adapted to working with multimedia, but other computers and software will work, and the more interest shown in the medium, the more hardware and software you’ll see developed to fill the need. At this point, Apple seems to have the lead in interactive multimedia software.

When you stop to think that personal computers didn’t even exist 12 years ago, and consider how quickly they have evolved, it is easy to understand that no one can say with any certainty how this medium will develop. In only five years it may be packaged in a format we haven’t yet imagined, probably requiring simpler and less bulky equipment and almost certainly performing faster. When do we jump in?

As a leader in the instructional materials industry, VEP is in a position to support ag education’s evolution into the more academic, demanding curriculum it is becoming. We want to be there with exciting instructional materials that not only teach, but spark the imagination and truly engage students’ interest.

Of course, this assumes you are a teacher who integrates technology into your curriculum. I’m an advocate of technology, especially audiovisual, but not everyone is. Are you ready?
Practicing Leadership Concepts in Agricultural Education

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Summary

Behavioral science concepts provide us with acceptable parameters for developing leadership programs for secondary students. The concepts addressed in this article focus on developing leadership programs that consider the physiological and psychological needs of students. The physiological and psychological needs of the students should be guiding factors for developing leadership programs for secondary students. The environment upon which this program will operate should be democratic, and democratic practices should be modeled by the teacher as a matter of routine. All activities should provide learning experiences consistent with school/program goals and objective.

Adapting the FFA in Urban Programs

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leadership development programs. Therefore, it is particularly important to make mention of how best to operate FFA chapters in these programs.

The key to advising large FFA chapters is in seeing yourself as a MANAGER. It is imperative that you coordinate the activities of others rather than doing the activities yourself. Here are a few key points:

1. Develop a program of activities each year. This plan should include specific, measurable goals to be accomplished during the upcoming year. Don’t try to do everything. Avoid duplication of similar events.

2. Train a good officer team.

3. Be sure that every officer has a clearly defined job description.

4. Be sure that every officer has a mailbox or a clipboard in a convenient location so that you can drop them frequent notes.

5. Be sure that your better officers are student aides so that they can complete much of their FFA work during the school day. If possible, try to enlist them as student aides during your preparation period.

6. Demand accountability from your officers and committee chairpersons. Your theme should be, “There are no excuses.”

7. Use alumni to do routine jobs such as train teams, cook meals, haul animals, etc. Tell them what to do and give them the authority to do it.

8. Use committees to do everything. Students will be much more willing to tackle a job if they know they are the “head” of a committee.

9. Call or write students frequently to provide praise for completing assignments.

10. Maintain a good set of files on all FFA events. Try to assemble a master file for each event so that a committee chairperson can run the event with minimum assistance from the advisor.

In short, the key to advising a large FFA chapter is in serving as a MANAGER rather than a “doer of all things.”

Summary

Program direction is the principal difference between urban and rural programs. Accordingly, it is important that FFA activities and contests be tailored to reflect the particular curricular emphasis of the vocational agriculture program. Urban programs will therefore frequently find it necessary to develop and participate in non-traditional contests and activities.

Additionally, because urban programs are often large, it is important that the advisor act as a manager. In this capacity, he or she should coordinate the activities of students and alumni.
JULY KENT FEED WORKSHOP
Thirty-six agricultural educators participated in the Kent Feeds Livestock Feeding & Management Schools coordinated by the NVATA and sponsored through the National FFA Foundation. The Professional Development Workshops were held at Muscatine, Iowa in June and July, 1989. (Photo courtesy of Kent Feeds and NVATA.)

Teams at the leadership camp compete against each other in group activities and then discuss the dynamics of the group. (Photo courtesy of Jeff Miller.)

The NVATA presented appreciation plaques to retiring PAS officers at the conclusion of the annual conference in Kansas City, March, 1989. Front Row, L-R: David Kluschn, VP; Cheryl Jordon, VP; Joe Funke, President; Mary Kay Bell, Secretary; and Dale Davis, VP. Back Row, L-R: Larry Clifton, VP and Paul Sturgis, Past President. (Photo courtesy of NVATA.)

Media interviewing during the seminar session, "Speaking Out on Agriculture" provides direct, real-life learning for LEADers. (Photo courtesy of Jim Horner.)