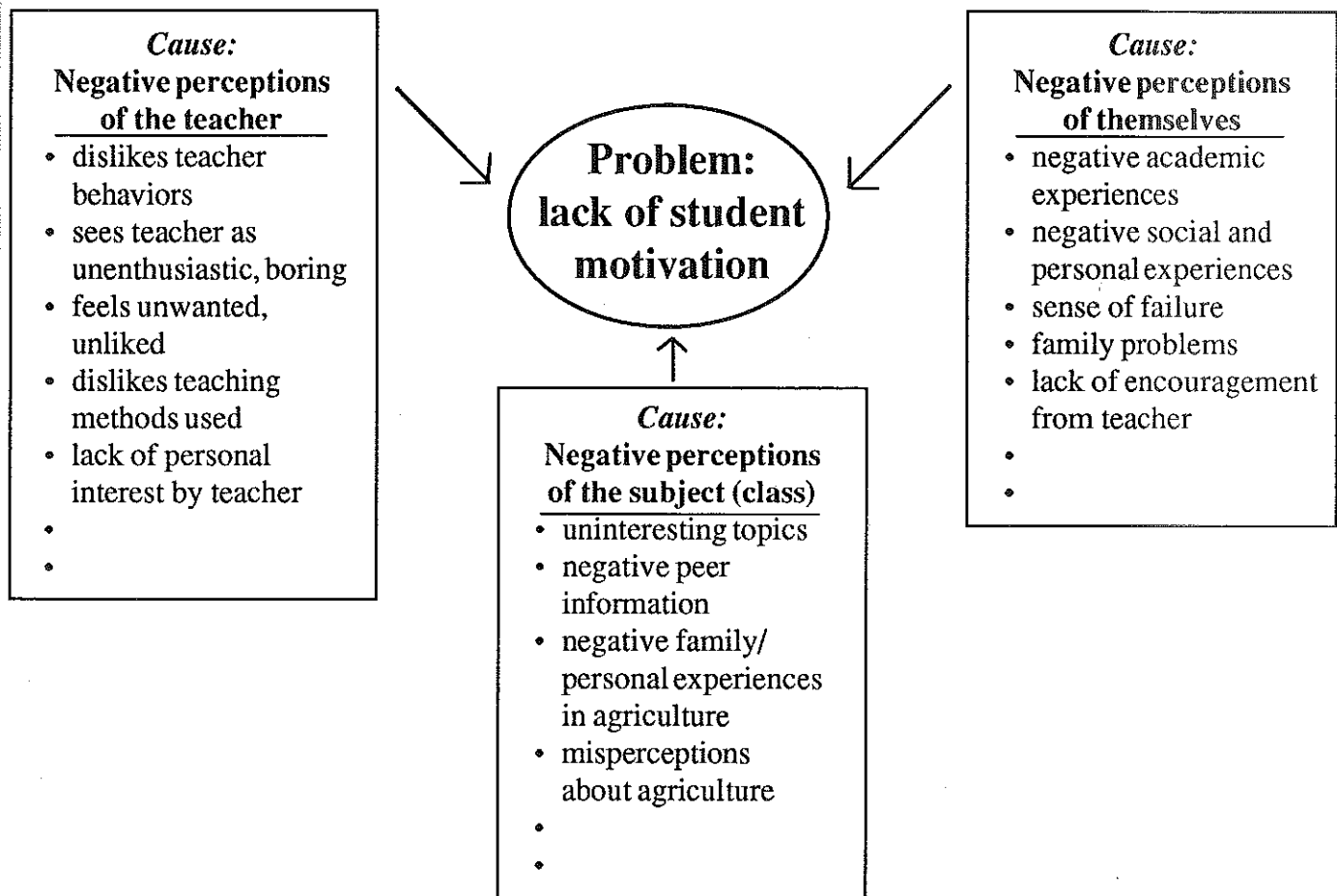


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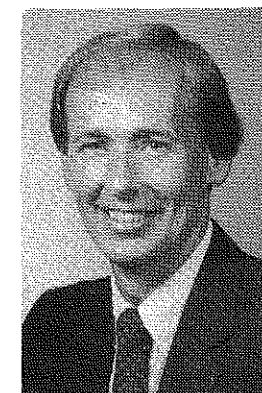
Magazine



## Solving Problems in Teaching



# Using Problem Solving to Solve Problems in Teaching



By ED OSBORNE  
Dr. Osborne is associate professor and program chair of agricultural education at the University of Illinois, Urbana-Champaign.

Teaching is a continuing process of meeting challenges and solving problems. And just when we think we have one problem solved, another one creeps into the picture. This quickly changing, up and down process is much like handling all the mail we seem to accumulate in agricultural education. As soon as we feel caught up, another stack arrives. Similarly, as soon as we feel we have one problem solved in teaching, another one becomes apparent.

And like handling mail, if we don't have a good system for dealing with problems as they arise in teaching, we are likely to begin feeling overwhelmed, frustrated, and ineffective. Unsolved problems can rapidly snowball into major problems that have no easy solutions. Sometimes teachers find themselves simply trying to survive from day to day, rather than spending some time analyzing problems, symptoms, causes, and solutions.

One of our primary goals in agricultural education should be to enhance students' ability to recognize and effectively respond to professional and personal problem situations they may encounter in life. Many agriculture teachers use problem solving teaching in their classes. The same problem solving techniques that we teach our students to use as learners in agriculture can be applied to problems we encounter in teaching. However, teachers often (unknowingly) treat or respond to symptoms of problems rather than the problems themselves.

Every agriculture teacher could quickly develop a list of problems recently (or currently) experienced in teaching. Some examples include:

- poor test scores
- low FFA membership
- poor SAE participation/quality
- students talking in class
- unmotivated students
- lack of facilities
- students don't wear safety glasses
- lack of use of computers in teaching
- ineffective group discussions
- low time-on-task in the lab

- students don't do homework
- students won't take notes
- poor quality lab reports

The chances of any of these problems going away by themselves are slim to none. As teachers, we must believe that solution is possible and that we can bring about effective solution for problems we encounter in teaching. Careful analysis of the problem and persistent, determined work toward solution are essential.

Effective problem solving requires adequate and focused reflective thinking time to allow sufficient analysis of the problem(s) at hand. Two strategies for using problem solving to improve teaching and learning are helpful. First, find a quiet place and several sheets of blank paper and sketch out an analysis of the problem and its potential causes (see example on front cover). Discuss the results of this initial brainstorming activity with several teacher colleagues and revise. This initial analysis normally only takes 15-20 minutes. Additional potential causes should be added as they are identified. Using the problem analysis sketch, gather the data necessary to support or eliminate each of the possible causes of the problem. Some data may be difficult to obtain, but persistence and a detective-like attitude will pay off in the long run. Most problems have multiple causes. As these causes are isolated, corresponding solutions should be identified and implemented. Again, often a combination of solutions is most effective in solving the problem.

A second strategy involves similar steps. Begin by identifying the problem (be careful, this is often the trickiest step). Note a few symptoms and descriptors of the problem. Then consider the potential impact of the problem (if this problem persists, what will be the effects?). Next, state the specific goal that you are seeking to achieve. For example, if the problem is a lack of computers in teaching, a reasonable goal would be to obtain at least 10 computers in the agriculture classroom. The next step is similar to the problem analysis sketch in that we list possible causes of the problem. →

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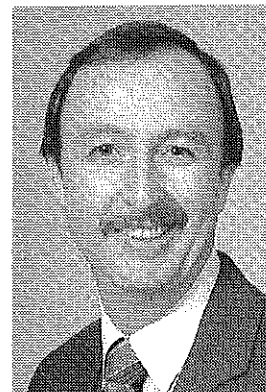
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# Solving Teaching Problems: Shouldn't We Practice What We Teach?



By  
Dr. DEAN SUTPHIN  
Dr. Sutphin is associate professor of agricultural education and Chair of the Department of Education at Cornell University, Ithaca.

**S**tudents learn to solve real-world problems in agricultural education. This is because teachers use problem solving as an instructional strategy and a conceptual basis for the curriculum, kindergarten through adult. Yet, some teachers fail to utilize this technique to address their own professionally related concerns and problems. Why don't teachers practice what they teach?

## Lessons from Problem-Based Teaching

Is there any doubt that problem solving is both a powerful teaching technique and tool for dealing with life's circumstances? What is the evidence to support such a claim?

Textbooks in agricultural education (Crunkilton, J.R. and Krebs, A., 1982; Newcomb, L.H., McCracken, J.D., and Warmbrod, J.R., 1986) strongly support the conceptual base of problem solving. Similarly, research supports problem solving in teaching. Solving problems is a motivating educational experience for students across all cultures and backgrounds. Solutions often lead to intriguing questions when learners are properly nurtured and become expert in problem solving. Students create an expanding web of learning, leading them to a lifelong learning strategy. In addition, problem solving

activities can help students develop self reliance and prepare them to solve problems out of school.

*The bottom line is that problem solving is highly successful in teaching agriculture and has application in agricultural business and industry. It would be ironic if teachers failed to apply the powerful problem solving models to solve their own professional concerns and problems.*

Motivating experiences through problem solving add vitality to the agricultural education curriculum. Applications are easily drawn to environmental issues, important to society worldwide. By comparison, few school subjects are as closely connected to real world experiences as agricultural education. Few courses are as related to basic human needs of food, shelter and clothing.

The bottom line is that problem solving is highly successful in teaching agriculture and has application in agricultural business and industry. It would be ironic if teachers failed to apply the powerful problem solving models to solve their own professional concerns and problems. →

## Using Problem Solving . . .

(continued from page 3)

Then we consider and note the general factors/conditions that would help us reach our stated goal. Finally, we gather data to verify or discount the possible causes and develop a solution plan accordingly. The solution plan might consist of a number of solution strategies that could be implemented one by one until the problem is solved, or they might be implemented simultaneously.

If these strategies sound cumbersome, they are not. The major requirement is focused reflective thought on the problem situation. I would contend that a large

majority of our teachers could effectively use these strategies to solve problems they encounter in teaching. Without the use of thoughtful strategies such as these, teacher responses to problems in the classroom and lab are likely to be band-aid at best. And as we know, band-aids are fine for minor problems that quickly heal with a little attention. But the more serious (and common) cuts and bruises in teaching require more expert medical attention, or else the wound progressively gets worse. Being able to effectively solve instructional problems puts us on top of our game and in control of the outcomes. This will require that we use problem solving as both a teacher and a learner. ■

## Teachers as Problem Solvers

Teachers are problem solvers in the classroom and in their profession. Career and professional decisions are often easier to resolve if teachers identify and delineate the "real" problem, identify alternative solutions, gather information, test the alternatives and, then assess results. Teachers are challenged with many professional problems and concerns, such as how to stay updated in their subject matter and how to change local agriculture programs to attract students and meet their educational needs. Although teachers can solve many problems like this themselves, their chances of success are greatly enhanced with a support network.

## Mentorship for Solving Problems

Who is most at-risk of having problems in teaching and lacking time to consider and resolve professional concerns and issues? In many cases, it is the beginning teachers. There may be pressure to live up to a community image of a previous exceptional teacher. If the previous instructor was not so good, there is pressure to rebuild and give new life to the program. Always, the expectations are high to update curriculum, modernize, and build networks in and outside the school. Beginning teachers often feel compelled to immediately accomplish all of their own goals and those imposed by others.

The cost of "paying their dues" to teaching in some situations is too high, unrealistic, and leads the beginning teacher to quit. In other cases new teachers become so immersed in a full range of activities, that the quality of instruction is compromised. Another tragedy is the personal costs that may negatively affect the family.

One of the greatest professional contributions an experienced teacher can make is nurturing and mentoring a young teacher. Sage advice and wise counsel will be instructive and provide moral support to resolve problems. Most beginning teachers need this type of support. Advanced warning of predictable problems and a support base for dealing with unanticipated ones can make a significant difference in the success of new teachers.

A wise proverb states that many counselors lead to success. Other agriculture teachers, counselors, administrators, valued colleagues, business and

industry representatives, and a formal school-based agricultural education advisory council are important sources of assistance to solve problems. Who has responsibility to establish this mentorship and extended network? The beginning teacher, if no one else does.

## Adding to the Teacher's Problem Solving Milieu

Adequate time is essential to solve teaching related problems. Too often we fail to block out the personal time that is necessary for problem solving. And, it is increasingly difficult to establish and protect the time that is necessary for personal reflection on complex, ill-defined problems that are so frequently associated with teaching.

Traps that rob time and hamper high quality teaching are sometimes portrayed as intriguing new technologies, new programs, and new initiatives. For example, the car phone and home FAX, computer networks, beeper systems, electronic phone answering systems, and other mobile communication devices seem to hold promise for enhancing productivity. Yet, they can be traps that make us accessible 24-hours a day, seven days a week. Anyone who taps into the system expects an immediate response. Virtually everyone has access. Even traveling in the car no longer offers a protected sanctuary for think time unless we make it so. As we tell our students, problem solving requires time on task as well as clear thinking. Teachers should protect their time.

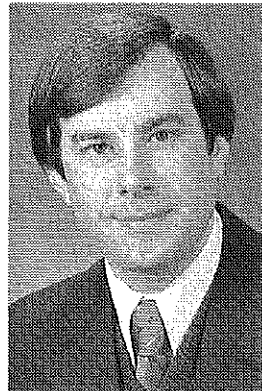
A relevant contemporary library is another aspect of an effective problem solving environment. Research in teaching, teaching tips, and learning from the experiences of others provide valuable lessons. Reading professional journals at least monthly is a good idea. They contain the latest research and frequently include examples of programs that are working. Why are some agriculture programs increasing in enrollment while others are barely surviving? *The Agricultural Education Magazine* and other journals have articles that describe the characteristics of highly successful programs. When specific problems come up, you may remember an article that described similar circumstances, or you may need to search the literature for a solution.

Perhaps there is no better way to prevent problems than a high quality instructional program. There is substitute. It is

(continued on page 14)



# Teacher Effectiveness Research: Reducing Teacher Problems



By  
**JERRY L. PETERS**  
*Dr. Peters is associate professor of agricultural education at Purdue University, West Lafayette, Indiana.*

**H**ow can I be an effective teacher? What problems can I expect to encounter as a teacher? How will I be able to survive in the classroom? These questions have been asked by most teachers, young and old. They may be deceptively simple questions, for they have complicated answers. Teaching is a complex and difficult task that demands extraordinary abilities. Despite decades of experience and research, there still remains no simple answer to these questions. However, by dealing openly with the problems of teaching, you can acquire strategies for dealing with them.

A major component to becoming an effective teacher is being able to appropriately confront problems that contribute to the stressful conditions under which some teachers work: lack of discipline, drug abuse among students, poverty level among students, long working hours, and frustrations with the system. These are a few of the most important problems teachers face on a daily basis.

## Lack of Discipline

In a national report, *Public School Teacher Perspectives on School Discipline* (1987), teachers believed that students were more disruptive than they had been in the past. From the report, most teachers surveyed indicated that student misbehavior interfered with their teaching. This national survey showed that discipline is a serious problem in schools throughout the country, a fact clearly supported by the 1969 and 1990 Gallup Polls of the Public's Attitudes Toward the Public Schools.

*A major component to becoming an effective teacher is being able to appropriately confront problems that contribute to the stressful conditions under which some teachers work . . .*

Even when parents and the school community are supportive and problems are relatively minor, dealing with discipline can be a disturbing, emotionally draining aspect of teaching. All teachers, to be

successful, must develop the ability to control a classroom of students. It is difficult to give advice to teachers about how to do so, because each teacher must utilize his/her own skills to solicit cooperation from students. Good teaching requires the ability to establish a classroom environment in which students can effectively learn. This demands that teachers know and use quality guidance and discipline techniques. Both new and experienced teachers find this an increasingly challenging and difficult task. Assertive Discipline, Behavior Modification, Teacher Effectiveness Training, Reality Therapy, Adlerian-based Programs, LEAST Program, and the encouragement of Self-Discipline have received considerable support as approaches to guidance and discipline.

## Drug/Alcohol Abuse Among Students

It is difficult to generalize about student use of drugs/alcohol throughout the United States. Obviously the use of drugs/alcohol among young people varies from community to community and year to year. What we do know is that drug/alcohol abuse has become the top-ranking problem facing the public schools. Experts have long agreed that drug/alcohol use creates a psychological dependence or bonding with the drug/alcohol that can have harmful effects on school performance. Drug/alcohol use has been unmistakably tied to AIDS, teenage pregnancy, depression, suicide, automobile accidents, erosion of the self-discipline and motivation required for learning, truancy and dropping out of school, crime, and misconduct that disrupts an orderly and safe atmosphere conducive to learning.

Students' drug/alcohol problems are not always easy to detect. Their low productivity rates, inability to learn, and attitude problems demand teacher attention; yet teachers may be unaware of the source of those difficulties. Even when teachers do recognize a drug problem, they may lack the resources or expertise to offer help. Obviously, teachers feel frustrated when →

faced by the wasted potential they observe in their students. In addition, when the public calls for schools to curb the drug/alcohol problem, that expectation can increase the stress teachers experience. Clearly, our schools need better drug/alcohol education programs.

There are no simple methods to combat the debilitating effect of this problem. However, a teacher's early awareness of signs their troubled students exhibit is essential for school programs and social agencies to intervene effectively. The important first step toward providing assistance is to acknowledge that these problems will occur among students. It is important that teachers become aware of school and community programs that can provide assistance to students and return them to the state of readiness and self-discipline they must have to benefit from the classroom goals.

*A problem that many teachers face is never knowing when to say no. Too often they overextend and overcommit themselves to so many activities that they find it difficult to function effectively on any of them.*

## Poverty Level Among Students

Although the United States is one of the richest nations on earth in terms of material wealth, it has by no means achieved an enviable record in regard to poverty among children. Poverty is a serious social problem that is ultimately related to education. It may come as a surprise to many that not all poor people in America live in large city ghettos, receive welfare, and are members of a minority group.

The war on poverty has proven much more difficult to win than imagined. Results of educational programs such as Head Start, Upward Bound, and the Job Corps diminish as funding changes. Although society has asked our school systems to help solve this perplexing problem, it should be clear by now that problems associated with poverty cannot be solved by education alone.

## Long Working Hours

Although the official working hours for teachers are attractive, the real hours spent on the job are long. Not built into contracts are the after-hours or extra assignments found at all levels of teaching. Hall and lunchroom duty, recess, parent conferences, student organization sponsor-

ships, taking tickets or selling concessions at athletic events, and coaching are just a few of the additional nonteaching activities that require additional hours of work. Large amounts of paperwork associated with various record keeping forms may be the most burdensome of the teacher's nonteaching tasks. Also not obvious are the hours of preparation that occur before and after school and frequently late into the night and over the weekend.

Individually, such nonteaching assignments and responsibilities may be enjoyable. Too many of them at once, however, becomes a burden and consumes the teacher's valuable time. A problem that many teachers face is never knowing when to say no. Too often they overextend and overcommit to so many activities that they find it difficult to function effectively on any of them.

For the teacher, the school is the work environment. Because much of a teacher's environment is time-governed or time-bound, it is important for teachers to know which aspects of school life and school time can and cannot be controlled. Once teachers know what can and cannot be controlled in their daily classroom routines, they should plan and prioritize what they want to accomplish. Teachers must learn to say no, or established priorities will be extremely difficult to accomplish. Teachers should not accept new responsibilities or volunteer for new projects without first considering their use of time.

Though few people fully understand the nature of time, time seems to make demands upon everyone. It guides daily activities. It structures work environment. It is a reminder of work uncompleted, friends ignored, responsibilities not fulfilled. When people feel unable to direct their lives, they look at time as a thief of their freedom, their autonomy, their professional dignity. They show their displeasure by blaming time for their own inability to get done the things they'd like to do.

## Frustrations With The System

Teachers are asked to help solve the social problems that students bring into schools. These problems include but are not limited to drug use, poverty, unemployment, crime, truancy, school dropout, pregnancy, child abuse, suicide, AIDS, single-parent homes, illiteracy, and racism. Though teachers are in the best position to recognize the needs of their students, they are commonly excluded from partici-

*(continued on page 11)*

# Motivating Students Across Ability Levels



By MICHAEL RUSH and DAVID DEAN  
Dr. Rush (shown) is Director of Research for the Idaho Division of Vocational Education. Dr. Dean is supervisor for professional development in the Idaho Division of Vocational Education.

**"T**his is booooring" - the words still cause my skin to crawl. Nothing a student could say would frustrate me more than those words, which indicated that my efforts at teaching were not appreciated and effective. Part of my frustration probably came from the subconscious knowledge that the student was right - the subject really was boring and we were both wasting our time.

Agricultural educators are and have always been keenly involved with student motivation: we teach a curriculum that can motivate in ways regular high school curricula cannot; we get students who are unable or unwilling to perform in the traditional academic environment; we have at our disposal a variety of instructional tools that can make what we have to teach exciting and meaningful; and we are adept at encouraging students to take charge of their own learning.

On the other hand, we also have our problems. We get frustrated with students who don't want to be there and classes that are too large to teach effectively. We get tired and run out of ideas. We fall into ruts and teach the same way even if it doesn't seem to work anymore.

Yet, there are examples of student after student who had been written off, who were flunking out and didn't seem to care, that turned around after participation in an agriculture program.

What can we do? How can we provide that motivation? What tools can we implement? Although it is easy to complain about students who don't put forth any effort, teachers need to approach the problem by looking at the pragmatic reasons behind low achievement. The first thing we need to recognize is that motivation does not exist somewhere as a single magical key that will turn lifeless, disaffected students into inquisitive, adoring scholars. Just as students are different, their reasons for not succeeding also differ. Teachers need to develop a systematic (if informal) system of figuring out the reasons students are not motivated and then tailor motivational approaches to address those specific causes.

Perhaps the two main reasons for low student accomplishment lie in what stimuli

motivate a person to action (external factors), and what intrinsic reasons cause a person to initiate some action (internal factors).

## External Factors

There are several reasons why external motivation may not be working.

First, if students find that potential rewards are unappealing, they are not likely to increase their efforts. An example is that many students are tired of school after eight to nine years and want to go to work — not take on four more years of classroom learning. School itself does not provide any rewards, and students do not have any clear goals for the future.



Having students teach what they know - especially to younger children - can have a powerful motivating influence.

Sometimes a certain future may be appealing, but there is a weak performance-reward linkage. Students may not see a connection between current demands and future opportunities. And the students are not necessarily wrong; the linkage may not exist, except in the mind of the teacher. We often tell students that something will be "good for them," when "it's good for us" is really closer to the truth.

The third reason students may not be motivated to excel is lack of learning involvement due to an ineffective learning →

environment. If the teaching style does not fit the learning style, the students will find something else to do. Students will cut class, skip school, misbehave, use drugs, or otherwise withdraw.

## Internal Factors

On the other hand, students may not be intrinsically motivated. Students' needs, interests, curiosity, and enjoyment may be non-existent. When students are motivated by interest or curiosity, they enjoy the sense of accomplishment learning can bring. There are several internal factors that should be considered.

One of the most common ways to arouse curiosity is to tap into student interests. Although it seems logical that learning experiences should be related to interests, often they are not.



High technology equipment can often motivate students to learn concepts they might otherwise avoid.

Another internal block may be the level of anxiety of students. Nobody can learn at their optimum if fear is the basic emotion guiding the learning. Anxiety is affected by the curriculum, other students, teaching strategies, the cultural environment, and teacher demeanor.

The inability to set goals that are specific, moderately difficult, and likely to be reached in the near future will also cause a lack of motivation.

Finally, fear of failure often blocks internal motivation. Students must experience success, and they must think there is a good likelihood of success before they will try. That does not mean they always have to succeed - failure can be very instructional. Students who have continually experienced failure in school, however,

build barriers against the pain of failing again. They disrupt class. They don't care. They reduce their exposure to the situations that bring them nothing good.



Working in teams can help students who might otherwise fall behind.

## Strategies for Motivating Students

Once a teacher has figured out why a student is not motivated, that teacher is better equipped to change the situation. There are a number of strategies to improve motivation. Remember, however, that not all strategies are appropriate for all students or even the same students at different stages in their development.

The following is a list of brief annotated strategies grouped into four categories: (1) basic strategies; (2) strategies that focus on external motivation; (3) strategies that focus on internal motivation; and (4) strategies specific to at-risk students. Some of the following were taken from *Educational Psychology* (Woolfolk, 1990).

### Basic Strategies

1. Be committed to making a difference. If teachers are really going to motivate all kinds of students - especially students who have failed in the past - teachers have to want to do it. A study of agriculture teachers (Rush, 1982) indicated that the very best teachers were committed to meeting student needs. Those teachers believed they could make a difference and took responsibility for making that difference happen. This means that teachers need to stay motivated themselves. Teachers need to be professionally active, set goals for themselves, and find ways to make teaching exciting and fulfilling.
2. Be patient and supportive. The old refrain "people don't care how much you know until they know how much you care" particularly applies to students who have experienced failure in school. Becoming motivated represents a real risk to those students, and they will not take that risk unless →

- they think they will be supported.
3. Be organized.

**Strategies that focus on external motivation**

1. Develop a dynamic, up-to-date curriculum. Even if an old curriculum motivates, it will not stand the test of time.
2. Create incentives and rewards (now and in the future) for learning accomplishments.
3. Connect educational experiences with future goals (jobs, further education).
4. Avoid heavy emphasis on grades and competition.
5. Model motivation for learning.
6. Provide opportunities for all students to actively participate in learning by use of questions, short assignments, group activities and skill demonstrations.
7. Structure lab experiences to stimulate thinking and encourage problem solving. Let students experiment and discover concepts for themselves.
8. Have students complete a finished product. Working on mock-ups is useful, but there is no more satisfying conclusion to a small engine unit than hearing that engine start.
9. Develop a base of adequate resources. This includes appropriate equipment, reference materials, and adequate preparation time.
10. Take advantage of the full range of motivational opportunities within the agriculture program, including student organization, advisory committees, alumni groups, supervised agricultural

experiences, agricultural laboratories, field trips, guest speakers, contests, and conventions.

11. Create opportunities for students to succeed in front of their parents and other significant adults. Many times unmotivated students have parents who contribute to the problem. Situations that showcase student abilities often provide parents the motivation they need to begin helping their child succeed. An effective tool used by many agriculture teachers is an annual chapter parliamentary procedure contest.

**Strategies that focus on internal motivation**

1. Begin work at the student's level and individualize instruction as much as possible.
2. Help students create their own goals in clear, specific terms.
3. Involve the students in planning and in teaching. Use cooperative learning techniques.
4. Find out what students are thinking, and tie class activities to student interests.
5. Stress self-comparison - not comparison with others.
6. Teach students that academic ability is improvable and specific to the task at hand.
7. Model good problem solving.
8. Have fun.
9. Make use of novelty and familiarity.
10. Create (invent, manipulate) circumstances in which students can succeed.

**Strategies specific to at-risk students**

1. Maintain high expectations of all students, regardless of past schooling experiences.
2. Challenge all students to excel. Let all students know that you think they can learn.
3. Be careful of grouping strategies — use different groups for different learning activities.
4. Use materials that highlight all ethnic groups. Find and use minority role models.
5. Be fair in evaluations and disciplinary procedures.
6. Involve all students in learning tasks and in privileges.
7. Watch your own nonverbal behavior.
8. Develop cooperative relationships with other teachers, counselors, school administrators and parents to develop

**Teacher Effectiveness . . .**

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pating in the decision-making processes concerning these issues.

In addition to the frustration caused by lack of efficacy in matters of immediate concern to them, teachers may be demoralized when they realize how little respect decision makers often have for them as professionals. The teacher's goal of mutual support may be frustrated when differences surface in values, attitudes, or practices between parents, administrators, teachers, and community groups.

***No one ever said that teaching was easy.***

Recently renewed efforts have been made to restore dignity to the profession of teaching. Opportunities to foster mutual support and encourage good home and community conditions come in many forms. To highlight the important work of teachers, deliberate efforts have been made through awards programs to recognize excellence among teachers and their programs.

Effective teachers come in all sizes, shapes, and personalities. There are a variety of techniques they use in solving

problems that work effectively for different teachers. At the same time, there are several common characteristics found in effective teachers. One important characteristic is a solid understanding of the situation.

Effective teachers also have the ability to effectively communicate with students, parents, and other teachers and administrators. Being able to overcome adverse situations and problems while continuing to motivate, challenge, and inspire students is another common characteristic of successful teachers. Effective teachers have learned techniques to maintain classroom discipline and apply those techniques in their classrooms. Successful teachers have high expectations for their students and are enthusiastic and optimistic in their interactions with them.

No one ever said that teaching was easy. Each day brings new and enlightening experiences for the teacher. Teachers need to strive to solve problems they encounter daily so that as effective teachers they can continue to be life touchers and to be keepers of the dream for tomorrow's youth.

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**Motivating Students Across . . .**

*(continued from page 10)*

joint strategies to reach at-risk students.

9. Recognize and learn how to work with outside influences that affect student motivation and performance, such as cultural differences, peer groups, and parental influences.
10. Use conventional thinking to overcome traditional barriers, such as lack of English proficiency, lack of basic skills, and disabilities. Do not assume that something cannot be done just because it cannot be done in the same way with every student.

Motivating students with a wide range of abilities and problems is not easy. Efforts will not always be successful. But they are important and tremendously rewarding. Agriculture teachers are in a unique position to take advantage of those rewards.

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*Hands-on laboratories with real live problems are key to motivation.*



# Professional Development: The Beginning Teacher's Perspective\*



By WILLIAM G. CAMP\*\* and BETTY HEATH-CAMP  
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**A**gricultural education is undergoing a flurry of curriculum reforms that will affect the profession well into the next century. The ultimate success of those reforms will surely involve many factors, but in the final analysis, the success of agricultural education in America is dependent on a professional, competent, and motivated teaching force.

We all understand that the key player in the educational process is the teacher (Reyes, Alter, & Smith, 1986). Yet, the processes that are used in the education and professional development of public school agriculture teachers are more the result of political decisions, administrative convenience, and historical accident than of educational research or empirically-based education theory (Cruickshank & Armaline, 1986).

## Learning to Teach

Learning any job is difficult, but teaching agriculture is probably one of the most difficult of all professions to master. A successful teacher of agriculture requires technical knowledge in a vast array of agriculture disciplines. Just as importantly, the teacher must be able to organize and present that knowledge as a coherent, understandable, and meaningful learning experience, often for less-than-enthusiastic clients.

Mastering teaching is a lengthy, challenging undertaking that must be viewed as a long-term, developmental process (Hoffman, Edwards, O'Neal, Barnes & Paulissen, 1986). Teacher professional development can be visualized as a continuum, (see Figure 1) including preservice education, induction, and continuing development (Camp, 1988).

The overall process by which a novice teacher becomes integrated into the profession of teaching has come to be known as "induction" (Odell, 1989; Waters, 1985). During the induction period, the beginning teacher makes the transition from becoming an established teacher. The induction process is not a simple one, and it is often a frustrating experience for the beginning teacher (Reinhartz, 1989; Ryan, 1986).

1986). It is no wonder that "... beginning teachers frequently report stress, anxiety, and feelings of inadequacy" (Joyce & Clift, 1984, p. 6).

Fuller (1969) hypothesized that beginning teachers pass through a developmental progression of concerns. Ryan (1986) expanded on Fuller's early work and described four phases in the professional life of a teacher: fantasy, survival, mastery, and impact.

The *fantasy* phase is characterized by unrealistically optimistic expectations of students and the nature of the profession. In the *survival* phase, preservice or beginning teachers are primarily concerned with their own professional existence. They want their students to do well, but that is primarily because of their own fear of failure and their need to experience success in teaching. After some experience they begin to become more concerned with their *mastery* of the tasks involved in teaching. They begin to experiment with teaching strategies and better ways of performing the functional aspects of teaching. Finally, teachers who have gained enough experiences and successes to become confident in themselves and their abilities to handle the tasks of teaching become concerned with their *impact* upon their students.

## The Research

The research on which this article is based was a five-year study funded by the National Center for Research in Vocational Education, University of California, Berkeley. The study was conducted by the authors and a number of graduate students and others at Virginia Tech and was reported in Heath-Camp, Camp, Adams, Talbert, and Barber (1992). The research involved the following components:

1. an intensive ethnographic follow-up for two years of 12 beginning vocational teachers (including three agriculture teachers who entered teaching during fall, 1988;

2. case-study analyses of the first two years of 12 beginning vocational teachers (three of them agriculture teachers);
3. a series of nominal group technique (NGT) focus sessions conducted with samples of beginning vocational teachers from eight states in four geographic regions of the United States from the Southeast to the Northwest and taking place over a two-year period;
4. a national mail survey of a stratified random sample of all beginning vocational teachers who entered teaching in the United States during fall, 1989;
5. a national examination of exemplary induction assistance programs involving vocational teachers.

## Findings

We found that the daily lives of beginning vocational teachers, including agriculture teachers, were dominated by two factors: students and the educational system. In all respects, students had the greatest effect on the beginning teachers — that was no surprise. But the extent to which the educational system contributed to negative influences and negative significant events was not expected and certainly cannot be considered encouraging. The educational system should be in the business of helping new teachers adjust to the job and

succeed, rather than interjecting impediments for the novice to overcome.

We also found a very low level of interaction between beginning teachers and their co-workers. One would have hoped that experienced teachers would provide more effort at socializing the novice into the faculty-body, but that was not the case for most of the beginners we studied.

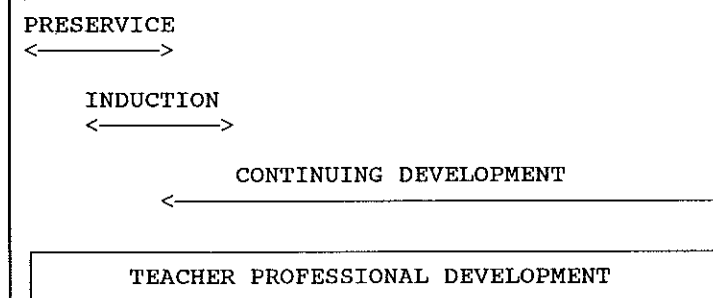
*... the extent to which the educational system contributed to negative influences and negative significant events was not expected and certainly cannot be considered encouraging.*

Of course, not all first-year experiences are bad. Beginning agriculture teachers receive positive feedback from students and others, and that feedback encourages them to keep on trying. Agriculture teachers also may receive recognition because of FFA activities.

Beginning agriculture teachers need early, appropriate assistance. We believe that they should be hired in either July or early August, then be allowed to use the extra time to prepare for classes. In general there were 11 broad areas in which beginning teachers need the most help (Heath-Camp, et al, 1992):

- **Time and organization.** More preparation time and assistance with organization (at least in the beginning), lower class load, no extra duties the first year, extra preparation period, time prior to school start-up.
- **Professional development.** Workshops, courses, and various materials to assist in instructional development and delivery.
- **Support.** Support was from a number of areas, predominantly the administration, parents, the business community, and guidance staff.
- **Orientation.** A thorough orientation and a new teachers' handbook with everything a new teacher needs to know.
- **Instruction.** Observations of other teachers, workshops, curriculum and other materials, and information on teaching.
- **Facilities, equipment, teaching materials, and supplies.** Purchasing and inventory procedures, identifying needs.

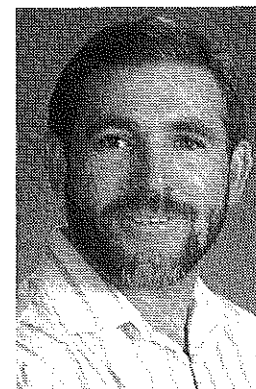
### Three Stages in the Professional Development of a Teacher.



Teacher professional takes place over an extended period, beginning with the first undergraduate preservice teacher education course and extending throughout the career. A period of particular stress occurs during the first few years of teaching. This stage in the professional development of a teacher has come to be known as the INDUCTION period. As this figure illustrates, the preservice, induction, and continuing development phases are not clearly separated and can overlap somewhat.

Figure 1

## Addressing Cultural Diversity in the Agriculture Classroom



By ERIC E. ZILBERT, DAVID DODSON, and ROBERTO SARRABIA  
*Dr. Zilbert (top) is adjunct professor of agricultural education at the University of California, Davis. Mr. Dodson (bottom) is an agriculture teacher and language development specialist at Galt High School, Galt, California. Mr. Sarrabia is evaluation coordinator, LaComunidad Migrant Education Program, University of California, Davis.*

The participants in the conversation recounted below have all had extensive experience in culturally diverse agriculture classrooms. Eric Zilbert taught agricultural mechanics in the Salinas Valley. His classes generally contained over 60% Hispanic students, varying from long-time residents to newly arrived immigrants. David Dodson is an agriculture teacher at Galt High School and a certified Language Development Specialist. Roberto Sarrabia is a Doctoral Student in Education at the University of California-Davis and has had long involvement with migrant education programs in California. Eric and Roberto are Spanish/English bilingual.

Roberto: Both of you have had extensive experience with culturally diverse classrooms. What tips would you give to teachers who find themselves with a culturally diverse classroom setting?

Eric: I think that before we start to discuss what to do with a diverse group of students we should clarify what we mean by cultural diversity. There are many distinct situations that teachers may encounter.

Roberto: To me, cultural diversity implies a classroom in which one cannot assume a common background in terms of language, social customs, and family views on school and learning.

Dave: There are definitely different levels of cultural diversity in classrooms. Two Caucasian students can even be culturally distinct from one another if one is from a rural area and lives on a farm, while the other is from a suburban location.

Eric: This is true. A "cattle chute" to one student may be a "cattle shoot" to another! It is equally true that two Hispanic students may have very different backgrounds and even speak different languages. Students of Mixtec or other indigenous cultures of Latin American speak totally different languages. To someone who does not speak Spanish, it is easy to misinterpret these students' needs. There are even instances of non-Spanish speaking

students being placed in English/Spanish bilingual classes by well intentioned counselors.

Roberto: Classrooms do exhibit different degrees and levels of diversity. Situations vary from district to district. It may be a teacher has a few culturally distinct students in a predominantly Caucasian classroom. Or it may be a bicultural situation in which the class is evenly split between two distinct groups. It is becoming more common to see situations in which many different backgrounds and ethnicities are represented. What we need to remember is that we cannot know what someone's ability or background is by the way they look or speak.

Dave: I agree, but the biggest problem faced by teachers is the inability to communicate with students with limited English proficiency. We've all been there! It's a full class of freshmen, you are stressed to the max with FFA and SAE, and now you have an NEP (no English proficiency) student in your class.

Roberto: This is a very difficult situation. One's first inclination might be to think that there is nothing you can do for the student — that the student should be placed in a different class.

Dave: I can see how teachers might feel that way. However, agriculture teachers have a lot to offer to students with limited English skills. The number one goal of the school should be to teach English and get the students reading, writing, and speaking English as soon as possible. Another critical goal is to build the self-esteem of these students, which is often very low. As you well know, there is little in education which can build self-esteem like experiences in agriculture classes.

Eric: Yes! The agriculture curriculum, FFA, and SAE all provide powerful vehicles for building self-esteem. Some programs in California even have bilingual creed speaking contests. Agriculture provides a great context in which to learn English, or Spanish, for that matter.

Roberto: The project component of the agriculture program provides a real →

- **Mentor.** Planned mentoring program with a trained mentor to provide feedback to the beginner to help identify strengths and weaknesses and to develop strategies for solving problems.
- **Interaction with other new teachers.** Opportunities for new teachers to meet and to discuss their mutual concerns and needs.
- **Positive feedback.** Positive feedback from the administration and other teachers and recognition for doing a good job.
- **Students.** Workshops to handle discipline, student motivation, and work with students in general.
- **Evaluation and feedback.** More frequent observations of what they are doing and immediate feedback, an explanation of the evaluation system.

### Conclusion

In the final analysis, a structured induction assistance program is indicated. For the younger teacher fresh out of college, it may initially emphasize time management and moral support, along with technical skill development. For the older teacher entering the classroom with extensive occupational experience, it may initially emphasize curriculum and instructional strategies. In both cases, the induction assistance program must be flexible, and it must take into account the unique needs of the teacher in terms of (1) specific discipline, (2) vocational development level, and (3) background in teacher preparation.

### Solving Teaching Problems . . . (continued from page 5)

worth giving up some activities in order to focus on key areas that lead to a high quality instructional program in agriculture — one that appeals to students.

Another dimension of the social milieu for solving teaching problems is a willingness to give up "pet" alternative hypotheses that no longer work. "Sacred cows," a program title, or a pet program or activity that used to work must be abandoned in an effective problem solving environment. These are hypotheses that have been tested and failed. It's time to test other alternatives.

### Summary

To solve problems in teaching, agriculture teachers should practice what they teach — adopt the problem solving model

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and apply it to their own professional problems. Although teachers can be good problem solvers, they need not act alone. Mentors are an important human resource. In addition, the social milieu for problem solving should include time to think and act, procedures that prevent problems from occurring, relevant informational resources, and a personal will to reject failed hypotheses and try new ones. We demand effective problem solving from our students. Should we expect less of ourselves?

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opportunity for contextualizing learning — making it more meaningful and practical for the student. Supervised agricultural experience projects can also establish critical linkages with the student's parents and community. This is especially true for the student whose family members are engaged in agricultural work.

Eric: Agriculture is also not as text driven as the academic subject areas, with more emphasis placed on experiential learning. Learning, as well as demonstrating what one has learned, are both less language dependent. By providing access to success and recognition, agriculture can help keep limited English proficiency students in school and working on their language skills. But where do you start if you have no knowledge of the student's language and the student speaks no English?

Dave: Teaching ESL students involves certain techniques most often associated with Stephen Krashen and James Cummins, two gurus of second language acquisition techniques. Some of the most important techniques include teaching with simple words or phrases with emphasis on terminology, visual instruction, and manipulative, hands-on learning. Sound familiar so far?

Eric: I see your point.

Roberto: It is important to remember that poor verbalization on the part of ESL students does not reflect lesser understanding, ability, or intelligence. Instructors who take the time to do what Dave is suggesting will see that at times LEP students understand more than they are able to demonstrate using language alone. The organization of the agriculture classroom with its focus on demonstrations and practical applications allows students to demonstrate competency in a manner that is not language dependent. The tendency is for teachers to tell students what to do, not show them how to do it. Likewise, students are asked to tell us what they know, not show us.

Dave: In general the instructor needs to slow down, cut out lectures, and have frequent checks for understanding. This is the teaching situation which gives new life to the old saying "actions speak louder than words." Group projects also work very well for these students.

Eric: Yes, I have been with classes a number of times where overcoming a group challenge created a sense of camaraderie, which made cultural and ethnic differences seem invisible for a time. Pairing students is also a good technique.

Roberto: Dave, are you saying that ESL students don't need special classes?

Dave: No, ESL students must be grouped, and sheltered instruction must be provided to speed up English proficiency and comply with state law. However, agriculture can contribute to a student's development when he or she is not in an ESL class. Agriculture can also be a very good ESL class.

Eric: You mean an ESL agriculture class?

Dave: That's right. At Galt High School we had a strong need for courses that our ESL students could take. The idea of an ESL Ag. Science I, or Sheltered Ag. Science I, was proposed to the administration. In the end, the course was simply called Ag. Science I, but it is full of ESL students and a few others who are in it just for the fun of it.

Roberto: So you teach an ESL agriculture class without being bilingual?

Dave: Yes! I think there are two major misunderstandings that need to be addressed. The first has to do with translations. It is not that important or necessary for the teacher to translate; let the students translate if they want. I DO NOT speak Spanish, Portuguese or any other foreign language. I DO make a lot of faces and use a lot of hand gestures. The second point is that the number one goal of ESL should be to get the students up to speed in English; the key is to keep them interested and in school. In this regard agriculture has much to offer.

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## Networking to Prevent and Solve Problems in Agricultural Education



By GAYLAN G. SCOFIELD and JIM LUNDBERG

*Dr. Scofield (top) is an instructor in the Department of Agricultural Education and Studies, Iowa State University, Ames. Mr. Lundberg is an agriculture teacher at Charles City High School, Charles City, Iowa.*

What can networking with people do for you? The answer is everything. Everyone has heard the saying, "It's not what you know, but who you know." Networking helps us function in daily life. Networking means making connections. A network is like an investment. The more you invest, the more rewards you reap.

No one individual in the public school system must deal with a larger and more diversified audience than agricultural educators. Learning to organize this audience into a communication network can benefit the teacher and the agriculture department. Benefits of networking are numerous. Networking allows for better utilization of individual expertise. Time and energy are saved. New ideas are explored and common problems are solved. Networking allows for mutual support structures to be established. These benefits result in more efficient communication.

### Networking Tools

Everyone uses networking tools. These tools must be used efficiently. An important networking tool for agriculture teachers is the telephone with a list of telephone numbers posted next to it. Within seconds, teachers can establish contact with key people who can help them in their job. Other common networking tools consist of face to face meetings, FAX, mail, and electronic mail. Newsletters sent to parents, school personnel, community leaders, businesses, and industries are effective in keeping communication lines open in the community.

### Understanding Networking

Understanding how to network is knowing how and when to be helpful to people. It is also knowing when to ask for help in return. A stable network grows from continual investments of your personal time, energy, and resources. Everything done in networking is an active process.

There are two levels of networking in agriculture programs. The "inner level" includes key individuals and groups that deal with the agriculture program most frequently. This level must first be

established if the entire networking system is to succeed. It includes parents, students, the local advisory council, FFA alumni, and FFA members. Using this inner level helps to complete the "outer level" of the network. The inner level is the direct link in developing the outer level of a communication network in the community. The outer level consists of groups both inside and outside the community that serve as resources to the agriculture program. The outer level makes it possible to take advantage of all human resources in a community while also providing an excellent opportunity to communicate information about the agriculture program. Figure 1 contains examples of Jim Lundberg's network in Floyd County, Iowa.

### Key People and Groups in the Network

The agriculture teacher must first develop the inner level of the networking system. Students and FFA members are the most accessible groups. Daily contacts are made during class, supervision of activities and events, and home visits. Telephone trees should be developed to convey information to FFA members and other key people involved with the program.

FFA officers are the link between the teacher and FFA members. Students are the link between the teacher and parents. Students and FFA members share the responsibility for communicating important information about the agriculture programs to parents and the community. However, teachers should maintain frequent contact to insure that all information is accurately communicated. Other key groups the teacher is responsible for communicating with are the advisory council and FFA alumni.

Use newsletters and memos to communicate events to parents, school board, administrators, faculty, and others in the community. Involve them with banquets, field trips, and other special events. Maintain resource directories listing phone numbers, addresses, areas of expertise, and other important information needed in →

the operation of the program.

Communication lines should be open both ways. Efficient use of your networking tools makes this possible. The key is to involve these people in the agriculture program. A brief description of each group in the outer level, how they solve problems, and the role they play in agricultural education follows.

**School District.** Prevention is much easier than treatment. It is much easier to prevent problems with key groups in your local school district than it is to fix major mistakes caused by poor communication. School board members and administrators need to be informed of activities. Faculty members are much more receptive to FFA members missing class for FFA activities if they are informed well in advance of the student activities. Newsletters and memos work well for this. Don't just pay attention to people in power. Remember the food service personnel who help in planning and preparing banquets, the custodians who keep facilities in shape, and the transportation personnel who arrange and supply transportation services for student activities. Involve these key people in activities. Express your appreciation for their efforts with recognition certificates during public activities.

**Commodity Groups.** Commodity groups are an excellent resource for helping students start and conduct supervised agricultural experience (SAE) programs. They can provide excellent educational resources for the classroom, such as videotapes and printed materials. Acknowledge contributions in writing, in newsletters, or the media.

**Government.** Government officials at all levels can be very influential in providing support for local programs. These individuals are usually very happy to speak to agriculture classes. These contacts can also be very helpful with legislation affecting funding for education or in securing special grants.

The Iowa Vocational Agriculture Teachers Association has a legislative committee within the organization. This network keeps teachers across the state up to date on the latest legislation affecting agricultural education. Teachers can then set their own networks into action and let legislators know how a bill will affect local programs.

**Agriculture Organizations.** Every community has agriculture organizations such as the Farm Bureau. These organizations can be very helpful in providing local →

support for the agriculture department. Most will include articles about local FFA activities in their publications. Encourage FFA members to make presentations about their activities during their monthly meeting. Many of these groups also have strong lobbying forces and can be very helpful in providing support for program funding. Recognize their support and find ways to work with them publicly.

**Media.** Local and regional media organizations are essential in telling the agricultural education story. Keeping the program before the public helps build support. Do not limit media coverage to just FFA activities, but tell the story of the unique learning methods that students experience.

Many small town newspapers will take as many articles as you can provide. Unfortunately, their staff size does not usually allow them to cover all events. Teachers and students can help provide articles. Use press releases supplied by state and national FFA organizations. Don't be afraid to call regional television or radio stations. If you are persistent enough, they will usually cover a few stories each year. Present certificates of appreciation at appropriate times each year.

**Business and Industry.** This group is important but difficult to network because they are numerous and diversified. Do not limit this group to your local community, but expand it to a regional and state level. This group can provide educational materials, equipment, field trips, funding, and human resources. Individuals in this group are experts in their fields and are very happy to spend some of their time with your classes. It is also important to keep these people informed about your program using your newsletter. Get them involved as advisory council members or in the alumni organization. Provide recognition at special events for their contribution.

**Civic/Community.** An important part of the overall agriculture program is teaching students leadership, cooperation, and citizenship skills. Communicating and working with other organizations in the community that have similar goals is important. Service organizations, such as the Rotary Club, are excellent groups to help provide community service projects. These organizations usually have a weekly meeting and need programs for their members. FFA members can use their leadership skills and give short presentations about their activities. It is also important to develop a relationship with community youth groups such as scouts, 4-H, and church. Conflicts with scheduling of youth activities can be

avoided by communicating with leaders in advance of major FFA activities. Provide a monthly newsletter and calendar to alert them of your activities, and request their newsletter and calendar to aid you in your planning.

**Government Agencies.** Many governmental agencies jump at the opportunity to work with youth organizations. During the past five years, Iowa agriculture departments have worked closely with the Soil Conservation Service. SCS personnel have provided written materials, time, and expertise in helping to teach soil management. Another agency, the Farmers Home Administration, has been very helpful in securing loans for student SAE programs. Provide recognition for their efforts in newsletters, media, or public activities.

### Summary

Networking is becoming an important part of the effective teacher's repertoire. Because of FFA and our professional organization, agriculture teachers have developed an effective communication network — one that spans the United States. The common interest of educating America's youth about the agricultural industry is a bond that ties all members of the agricultural education family together.

The agricultural education family reaches well beyond secondary teachers, and includes postsecondary teachers, teacher educators, state supervisors, and state FFA personnel. For example, agriculture teachers, postsecondary teachers from a regional community college, cooperative extension personnel, and county 4-H staff meet throughout the year to coordinate activities in Floyd County, Iowa. This prevents many problems in program duplication and scheduling conflicts. It serves as a professional support system within the county that allows everyone to share successes and frustrations.

Networking is a powerful success tool. It involves a set of skills and activities relying heavily on effective interpersonal communication for gathering, processing, and moving information in organizations. Networking is easy, but successful networking is tough. To be a successful networker takes time, patience, and practice.

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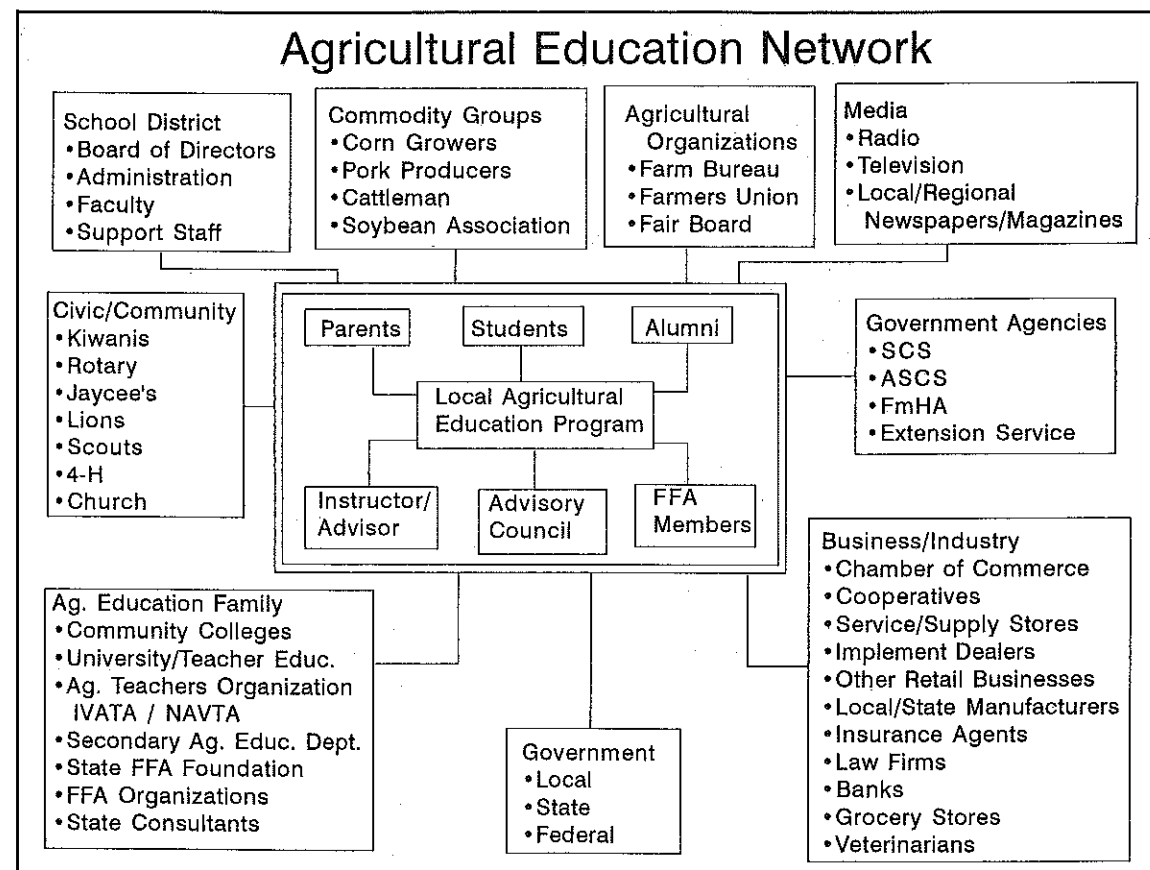
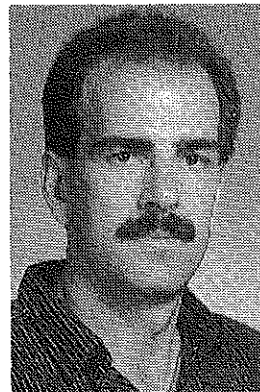


Figure 1. Example of a networking system.

# Teaching Adults Keeps Teachers Current



By  
STACY A. GARTIN,  
ROY P. HARPER, and  
RON HUDSON

Dr. Gartin (top) is associate professor and chair of agricultural education and Mr. Hudson is a senior in agricultural education at West Virginia University, Morgantown. Mr. Harper (bottom) is an agriculture teacher at Moorefield High School and coordinator of the West Virginia Young Farmer Education Association.

The importance of secondary agricultural educators staying current has been stressed as an essential part of secondary agriculture since its formation. Teachers who do not stay current with new trends and technologies in agriculture will be doomed to teach only the history of agriculture.

## SAEPs for Teachers?

The philosophy of secondary agricultural education over the years has supported the belief that students' supervised agricultural experience (SAE) programs should be related to their occupational objective. Many agriculture teachers across the country support this philosophy in a similar way for agriculture teachers. Mike Cox (1988) lamented that his diversified farm is a working laboratory for his teaching. Don Stephens (1981) stated that having his own farm has aided in finding new solutions to agricultural problems and learning existing practices, which he can also share in the classroom with day students and adult students. This is not just a recent belief of teachers. Smith (1950) stated, "I no longer have to say that farmers tell me they make a certain profit on their poultry flock: I refer to my own cost account book."

These teachers agree on the fact that both jobs complement their interests. They believe that by being engaged in agriculture, they get firsthand experience in practicing what they preach. They believe that firsthand experience adds know-how to stale teaching methods and suggests how to inject powerful, practical questions in labs, homework, and tests.

Blomgren and Jorgenson (1972) explained that "in addition to technical ability acquired, becoming familiar with the pressures of the world of work, current industry standards, and conditions will enable teachers to counsel more effectively and better relate to the problems of their students."

## How Else Can I Stay Current?

Are there any other ways that a secondary agriculture teacher can improve his/her knowledge of agriculture? Work

experience programs are one way to assist secondary agriculture teachers in staying current. Workshops, field days, visits to progressive agribusinesses, individual reading, and discussions with other teachers are a few other strategies which teachers should consider on a monthly, if not a weekly basis.

Stephens (1981) added that conducting a young, adult farmer and off-farm agriculture program certainly assists in the agricultural updating process.

## What Do I Need To Know About Teaching Adults?

Teaching adult agriculturalists is definitely different than teaching day students. Can you remember the last time 100% of your class was present because they wanted to learn something new? Can you remember the last time when you had a classroom full of individuals who were concerned about the progress they were making?

Did you know that adults learn 85% as well as individuals 21-25 years of age, equal to or superior to adolescents from 14 to 18 years of age, and better than children?

## What is the Difference Between Teaching Adults and Day Students?

When educators teach children (known as pedagogy) the teacher determines the needs, content, sequence, objectives, and planning and evaluation procedures. The classroom climate tends to be formal and competitive. Teaching adults (known as andragogy) is quite different. The climate is informal. Participants share in the decision making process. They decide what they are going to learn, their objectives, when and where the class will take place, who is going to teach, and how and what they are going to evaluate.

## How Can I Tell If My Community Needs or Wants An Adult Program?

The agriculture teacher needs to take the lead in conducting formal surveys to determine the types and numbers of agricultural businesses in the community. It is →

important to have a thorough understanding of the agricultural community and the number of owners, operators, and employees which it serves. Part of the survey should ask if they would be interested in gaining current information which could assist them in becoming more efficient, in which areas of interest they would like to have information, when and where they would like to have such a meeting, and if they would like to be involved in the planning, organizing or delivering phase of the programs.

## To Whom Do I Send The Survey?

The agriculture teacher should utilize the mailing lists from the extension agent, SCS, ASCS, FmHA, Farm Bureau; visit with local businesses; review the business pages of the phone book; and send a letter to the parents of every student in his/her day program. Networking with other agricultural agencies is important in order to avoid duplication. All agencies should unite to develop a systematic and programmatic adult agriculture program for the entire community.

## How Do I Analyze The Results?

Agriculture teachers should not do this by themselves. Remember you are teaching adults. Let them help you. The agricultural advisory committee is another prime group to assist in data analysis and topic priority ratings. If the group decides to form a Young Farmer Education Association, then the officer team or a representative committee could assist with this process. It is important to realize that you will not be able to discuss all the mentioned topics in the first year. This is why long-range planning is vital to a successful adult program. It is also important to remember that all programs might not relate directly to agriculture, but yet may be impacting their lives. Parenting and retirement are some other areas which quickly come to mind. Don't be too narrow in your views of what your clientele need and want.

## How Should The Meetings Be Advertised?

Without an audience you don't have a program. Advertising the meetings in advance is very important. Some effective strategies are radio spot announcements, radio community calendars, newspaper

articles and ads, individualized letters, postcards, flyers, and phone calls. Good advertising takes time and sometimes even money. This is a small price to pay for promoting lifelong learning in your community.

## Who Should Do The Teaching?

The agriculture teacher should assist the adults in finding the best expert possible to deliver the program. It is important for the agriculture teacher to serve as the expert in areas where he/she is an expert. This will assist in giving the agriculture teacher credibility. It is important that the community has confidence in the local agriculture teacher. Other experts may include neighboring agriculture teachers, extension agents or professionals from other agricultural agencies, and the local college or the university. Often adults in the group are the best experts you could ever hope to secure. Be sure whoever you ask is aware of the objectives identified by your adult clientele.

## Summary

Adults need and want to be provided with feedback on their progress. It is through supervision, not snooping, that you will establish that needed rapport in your community. Adults are always willing to share what they do best. Adults need positive reinforcement, too. A strong adult program coupled with an active advisory committee may be the saving grace to many agriculture programs across the country.

When planning a successful program, it is important to remember that feedback and evaluation should be a constant function. It is also important to remember that nothing takes place in a vacuum. The social, economic, political, and educational forces of society will constantly impact your program.

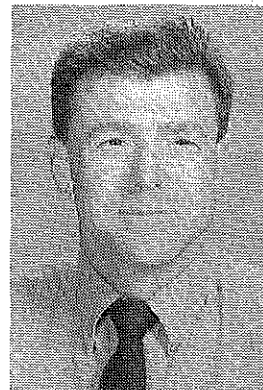
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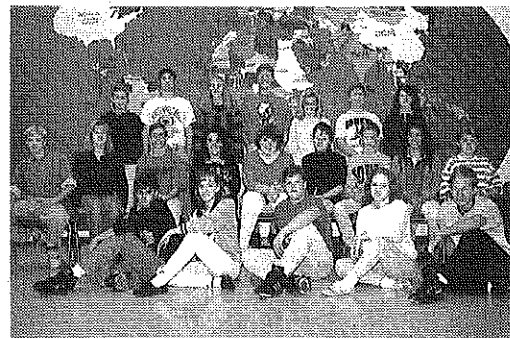


# Marketing Your Program

## We Only Slow Down To Full Speed



By  
**THOMAS P. CORY**  
 and **AG JOURNALISM CLASS**  
*Mr. Cory is an agriculture teacher at North Polk High School, Alleman, Iowa. Students in his Ag Journalism class (shown above) co-authored this article.*



Nothing happens by itself . . .  
 It will all come your way,  
 Once you understand that  
 You have to make it come  
 Your way, by your own exertions.  
 —Ben Stein

Turn on the television, watch music videos, and read billboards. Product marketing is all around us, yet do we really steal many of these marketing ideas for our own programs? Many times — NOT! We buy our shoes by endorsement, purchase a car by the status it carries, jeans by the logo, video equipment by the technology name attached, and food by the quality of health it can provide. An election can be won or lost by the general philosophy that the media injects daily into our subconscious. All are examples of how business and industry market their products to the potential customers each day. Agriculture also belongs to this family of marketers. Tractors, trucks, chemicals, and seed are promoted by the comfort, toughness, no carryover, high yielding results that they contain. Testimonials are sincerely given on the performance and profits you may receive if you “buy in.”

Agricultural educators take note — these are the qualities of marketing that we need to hone in on in the 1990s. We can no longer have brother, sister, livestock shows, or the counselor be the mainstay of our recruitment. You captain your ship. You know your waters better than anyone else. Chart and sail them, for everyone else may abandon ship. Slow down to full speed — ahead. Progressive and aggressive

programs are now the other cola in town, and people will buy in if they see quality, comfort, excitement, and motivation to identify with in your program. Marketing a product never ends. We do not just market during exploratory agriculture during the summer months, or two weeks before class registration. We market every day to every customer in every grade. We sell excitement to high school students, promise to junior high students, enthusiasm to elementary students, responsibility to teachers, and knowledge to parents.



Hands-on experiences are still in big demand as fewer students have production backgrounds.

As students in Ag Tech II, we reviewed our reasons for buying into this product called agricultural education. Our answers, like those of many other students across this country, include:

- Trips
- Public speaking
- Friends
- Off-the-wall teacher
- Class work that changes
- Conventions
- Leadership
- Parents
- New Image
- Excitement and interest expressed by “king” or “queen” in their kingdom.

This list is partial, but the testimonials continue. Each day one or two students are singled out as the designated hit list victim to receive a dose of “we want you.” Letters are periodically sent to create interest in parent and child. Activities are revised to include the potential customer to be our guest and dine at the table of propaganda. When banquet time

rolls around, all potential customers and parents/guardians are invited to an evening of entertainment, awards, and recognition as our invited guests — do not bring food, do not bring money, just bring opportunity. As students in agricultural education, we want to have some input as to what we want to learn, experience, and experiment with in your program. Let us advise you, the instructor, as to what we need. Then you adapt it to our daily lives to give some meaning to the phrase “learning to do, doing to learn.”

We called another agriculture department in Iowa to find out what they liked about their product. In some ways their answers differed from ours, but there were many similarities. Our department has 6% farm students, 41% female, 59% male, is 20 minutes from the capitol city, and has a crazy advisor. Cascade, Iowa’s agriculture program has 90% farm students, 7% female, 93% male, is 3½ hours from the capitol city, and has yet another crazy advisor (in dry humor), Milt Luckstead. Cascade students came into their program because of the teacher, brothers, sisters, parents, activities, responsibility, and also because the promotion of the product offered an alternative to other educational classes. Hands-on activities and being able to be in charge once in awhile appeared to be at the forefront of their statements.

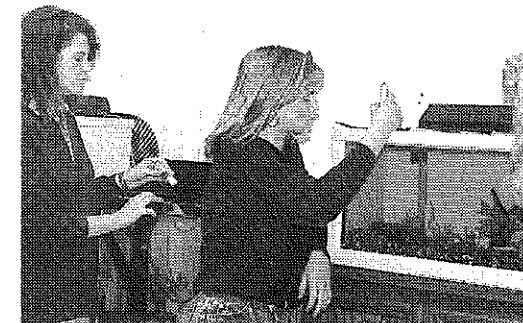
If you really do put a small value upon yourself, rest assured that the world will not raise the price.

—Anonymous

Self-esteem — “I feel like I have contributed and made a difference.” As



New technologies introduced into the agriculture curriculum offer exciting alternatives in secondary programs. Agriculture is now the “other cola.”



Aquaculture provides a living, in-room animal project and allows for daily management.

educators, we need to remember that just one positive statement each day can return tenfold customer loyalty and new customer buy-ins.

To be successful in our marketing war, we must move quickly to provide a product that the ever-changing customer will buy into — not change for change’s sake, but a revised way of selling knowledge to young people.

In the next article, we will pursue the specifics of our marketing plan — visit with other outstanding program customers and provide just a little insight from the instructors, since they try to dominate our conversations all the time in the classroom. Until then, remember, “If you’re not the lead dog, the view is always the same!”

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**Aquaculture -  
An  
Introduction**

Lee, Jasper S. &  
Newman, Michael  
E., (1992) Interstate  
Publishers, Inc.,  
Danville, IL

Reviewed by:  
Lynne M. Cook  
Agriculture Teacher  
Tift County  
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One of the hottest subjects in the agricultural industry today is aquaculture. Producers along with other landowners have found this business to be an added way to make profit on the land taken up by previously unused ponds. As an agricultural educator, I must make sure that my curriculum fits the interests and endeavors of the agricultural community which will surround my students when they leave high school or college and seek a career. It is with this thought in mind that many agricultural educators have introduced the study of aquaculture into their curriculum. Until recently, very little literature was available to the teacher for help in the classroom. However, now with Lee and Newman's book, I believe that the agricultural educator has an outstanding tool for use in the classroom.

The most outstanding feature of **Aquaculture - An Introduction** is that it covers the total industry of aquaculture. The basics of the science of aquaculture (fish, pest, and water biology) are covered with enough information to allow the reader to understand the fundamentals without getting bogged down in the particulars. A chapter on the aquaculture industry today is included, which tells the reader of the increased use, history of, and need for the industry. This chapter also has a good section describing current careers. Not only are catfish and trout production discussed in the book, but crayfish, ornamental, baitfish, plant aquacultural production, and recreational aquaculture are also covered.

Another strong point of the book is the directions given to those who wish to begin a small aquaculture enterprise. The

authors indicate the materials needed, how to use the setup, and the factors to be considered before you begin. Many inexpensive ways are described that could be used for SAE programs. Other plans are for the more production-oriented person who wishes to begin a business.

The only weak point of the book is the lack of detail in some parts. This vagueness is due to the immense amount of material that the book covers, however, and the authors do give specific examples to enable the reader to go beyond the book and ask questions to clarify the subjects. Since much of the technology of aquaculture is new or just being developed, much of the equipment is discussed as thoroughly as could be expected.

Overall, this is an excellent book in my opinion. My plans are to include much of the new information I have gathered from the book in my classes. I also hope to employ some of the smaller, inexpensive aquaculture setups for my students. ■

**About the Front Cover**

Being able to effectively solve problems encountered in teaching requires teachers to reflectively think about possible causes for problems observed. A diagram such as this helps to lay out the possibilities and makes it easier for teachers to develop a plan of attack (solution plan). For the sample problem of *lack of student motivation*, teachers should determine if the problem is a whole class problem or one that is limited to a few students in the class. Solution strategies must vary accordingly.