

## DISTINGUISHED LECTURE

The Distinguished Lecture is an interesting feature of the annual AATEA Breakfast meeting held during the American Vocational Association Convention each year. *The Journal* is used as a means of widely distributing the lecture to the profession. The Distinguished Lecture for 1979 was presented on December 4, 1979, at the convention in Anaheim, California.

## TIME TO TAKE INVENTORY IN AGRICULTURAL EDUCATION

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The Distinguished Lecture has long been one of the highlights of the annual breakfast meeting of the American Association of Teacher Educators in Agriculture. Since 1930, when H. E. Bradford delivered the first lecture at the meeting in Milwaukee, Wisconsin, many of the leaders of our profession have had the opportunity to speak. E. C. Magill, O. C. Aderhold, H. M. Byram, Carsie Hammonds, H. M. Hamlin, and Lloyd Phipps, to name a few, are among this group. I do not pretend to be of the caliber of these scholars. I have always looked forward to the time of the lecture in our meeting. And I assure you that for several months I have looked forward to this opportunity! It provides the once-in-a-lifetime opportunity to get to express opinions on our profession that may or may not have been expressed before and may never be repeated again. The honor is mine, and I am humbled by the occasion to speak before my peers in the family of agricultural teacher educators.

Agricultural education has built up a large inventory of program areas and methodology. Many of the items in this inventory are viewed as vital to a quality program of vocational education in agriculture/agribusiness. The inventory has been shaped and molded by many years of tradition. New features,

thought to be essential, have been added. Very few practices or components have been deleted. And when some things have been removed, there have been those who have felt that the program was falling apart!

Why the title of "Time to Take Inventory in Agricultural Education?" Many of the decisions in the business community are made on the basis of an inventory. The items to be kept in stock are those which are most beneficial to the business. The time has arrived for us to determine the essential, productive elements of the inventory of practices in vocational education in agriculture/agribusiness. We must determine those items in the inventory which benefit our program and those which do not. We must determine if there are additions or deletions which should be made to our inventory. Are there some items which do not provide a good return on our investment of effort? It is time to decide what to keep, what to discard, and what to change.

The inventory in vocational education in agriculture/agribusiness should consist of all of the practices needed to efficiently and effectively achieve our purpose, which is to provide a supply of competent manpower for agricultural industry. Anything which does not contribute to this goal should be removed from our inventory.

What components make a good inventory of practices for our program? At this point, some of my personal observations and biases will be made about various elements in our inventory. Some will be made to provoke thought and stimulate discussion. Others will be made because of a strong conviction on my part. Now to answer the question, my personal opinion is that we don't know which components are needed in our inventory. Have we been practicing witchcraft? Without the needed research base to document our inventory needs, we do not know the practices which allow us to most efficiently and effectively achieve our purpose. Are we so enchanted with some elements of our inventory that we sometimes lose touch with reality?

I will offer comments on several aspects of the total inventory of vocational education in agriculture/agribusiness. Due to time constraints, I will restrict my comments to a few areas I feel to be of most importance in local programs, supervision, and teacher education.

### *Local Secondary-Level Programs*

The inventory of practices in local secondary programs can be placed in four categories: classroom/laboratory instruction,

student development through FFA, supervised occupational experience, and adult/young adult instruction. In our inventory, we must decide if these four components are essential. In most situations, to ask a teacher to carry on these four components is unrealistic. Many prospective teachers and beginning teachers throw up their hands at this mammoth responsibility, never entering the profession or dropping out quickly. In recent years, there have been a number of studies on why teachers quit. These studies tend to support the notion that our inventory of practices is too demanding. Some states (one example is Arizona) have modified their inventories so that adult/young adult instruction is not a part of the local secondary programs. In practice, supervised occupational experience has just about been removed in some locations.

We must also recognize a phenomenon known as "teacher burnout." It is also called battle fatigue. Teacher burnout refers to the stressful conditions under which teachers must operate which cause them to lose commitment to teaching and ultimately drop out of the profession. It is produced by a variety of causes, including lack of student interest and cooperation, pressures applied by the school administration, and, I am hesitant to say, in the case of vocational agriculture/agribusiness, pressures to get all areas of a local vocational agriculture/agribusiness program in top shape. Are we demanding too much of our teachers?

### *Classroom/Laboratory Instruction*

First, the inventory area of classroom/laboratory instruction needs study. As long as our program is in the public school system, this is the basic inventory area and will be kept. However, some of its elements need to be changed! One element that continually needs changing is the curriculum. Sure, we have attempted to make changes, but many of the secondary programs I have observed need additional modification. Much of today's instruction lacks relevancy to the needs of agricultural industry. A farm machinery dealership which keeps an inventory of singletrees (the one horse version of a whiffletree) is about as responsive to modern farming as is a curriculum that is out of date. More time in the vocational agriculture/agribusiness curriculum must be devoted to instruction in the basics of business in agricultural industry and what it takes to be successful in the context of the 1980's and further into the future. More time should be given to financing, management, human relations, business communications, and distribution. Less time should be given to what is required to produce another bushel of soybeans or pound of gain. We wouldn't think of teaching the Indian practice of placing a fish under a hill of corn as a modern agricultural practice. How far has our curriculum advanced from this notion? We must incorporate into our inventory those practices required for success in commercial agricultural industry.

In 1942 in Toledo, Ohio, Carsie Hammonds of the University of Kentucky in this same lecture made a strong case for education. His lecture was entitled "Making Vocational Agriculture More Educational." He contended that vocational agriculture was not as educational as it might be and, further, that it was at times too specific and sometimes not general enough.

Hammonds' 1942 statement has much application today if it is tempered with our need for individuals who have good foundations in the various specialized areas of agricultural industry. We need to develop a strong foundation of competence in our students and go easy on "another bushel or pound of gain." This information is not immediately applicable by most of our students, will go out of date fairly soon, and can be found rather quickly when it is needed, while a broad foundation of competence needed for success in the mainstream of American agricultural industry cannot be quickly obtained.

Another aspect of the needed curriculum change is based on the fact that agriculture has changed and will continue to change. The farm functions of yesterday have been reshuffled so that agribusiness has emerged. Workers employed in agribusiness outnumber those in farming and ranching by at least four to one. Do our curricula in agriculture reflect this? In many cases, not even our university curricula in agriculture have reflected this change. Because of this, we sometimes see the best jobs in agricultural industry going to people with degrees in areas other than agriculture. Our inventory process must result in the restocking of the curriculum.

Another element in our classroom/laboratory inventory of practices which needs to be assessed is pedagogy. Are we using the most effective and efficient teaching practices? Have we realized the relationship of the teaching-learning processes? Have we selected and applied those principles of learning which produce the greatest results? Have we over-stressed, while at the same time misinterpreted, "learning by doing?"

Some of the pedagogical practices now being carried out in vocational agriculture/agribusiness are disturbing. There appears to have been an increase in the use of instructional methodologies which allow students to assume a passive, rather than active, role in the learning activities of the classroom/laboratory. Unfortunately, these methodologies have often been sanctioned by our profession, including teachers, supervisory personnel, and teacher educators. "Learning by doing" simply means that students are actively involved in learning activities, whether they are in the classroom or laboratory. "Learning by doing" refers to the cognitive and affective domains as well as the psychomotor domain. In fact, its application may be more significant in the cognitive and affective domains.

In the last decade, there have been a number of serious threats to the educational aspect of vocational education in agriculture/agribusiness. These have largely been perpetrated upon the program through a specific kind of instructional material which has been developed and the educational philosophies underlying such material. This material provides a list of objectives to the teacher; information outline sheets, which largely consist of terms and definitions; and transparency masters. My observation of classroom practice with this material is that we have superficial instruction. The teachers read the definitions, show a few transparencies, and move on to the next unit. This has given rise to what I call the "SOT" (superficial objective and transparency) method of teaching. The "SOT" method involves giving a few narrow objectives, projecting a transparency on the screen, and talking about it for a while. Have you noticed that in many situations as teacher razzle-dazzle increases student involvement decreases? There is very little or no student involvement with the "SOT." "Learning by doing" is all but gone and the students sit passively in the classroom. Is this a sound pedagogical practice? We must remember that another aspect of "learning by doing" is that we learn to do what we do. If we sit idle and pretend to listen and observe, we are learning to do just that!

To keep vocational education in agriculture/agribusiness educational, we must have sound educational practices in our pedagogical inventory. Students need to develop problem solving abilities and thought processes. They need to develop the ability to seek out information and skills. They need to be educated and to develop respect for education. There is an erroneous notion among some of the family in agricultural education that to read a book is impractical and does not involve "learning by doing." There are also those who would incorrectly say that what I am advocating does not lend itself to the use of specific instructional objectives and accountability. What I am advocating does lend itself to specific objectives and would enhance our accountability. I am advocating meaningful, systematic instruction.

### *Student Development Through the FFA*

Now I would like to move to another area of our inventory-- student development through the FFA. Like many of you, the FFA is very dear to me. This organization has meant much to me as a high school student, teacher, and teacher educator. The FFA has often been of more help to youth in bettering themselves than has the instructional program in vocational agriculture/agribusiness. The reason for this is that the FFA has very positively focused on human development. There are serious inventory needs in the FFA, however.

The FFA needs to continue to change so that it can be more of an integral part of the curriculum in vocational agriculture/agribusiness. How integral can an organization named Future Farmers of America be in a horticulture or meats merchandising program? In recent years, some aspects of the vocational agriculture/agribusiness instructional program have changed to be more relevant to the needs of agricultural industry. Some areas of FFA activity need to be adjusted in a similar manner. We need to be careful to keep the FFA current with the practices of commercial agricultural industry. I am pleased that new areas of participation have been added to make the FFA more relevant. We must recognize that the FFA is an organization that is overwhelmed with production agriculture. (And please note that I do understand the importance of production agriculture.) FFA pageantry and symbolism are rooted in production agriculture. A few years ago, the issue of the name of the organization was raised. This was a legitimate issue then, and in our inventory process it will likely emerge as an issue again.

In inventorying the FFA, it is apparent that it has maintained tradition and been the most protected of any area in the inventory of vocational education in agriculture/agribusiness. As new programs and activities are added, it is necessary for the local FFA chapter to be very selective in developing the local program of activities. There is a definite need to evaluate all existing FFA activities and change or omit those which do not have a rightful place in preparing youth for careers in agricultural industry.

Many of my comments about the FFA rest with the professionals in agricultural education, and not with the staff of the National FFA Center. I have found the individuals on the staff to be far sighted in terms of programs. I have also found them at times unable to develop and implement needed programs because of restrictions placed on them by the profession, or rather those of our profession who are on the Board of Directors. It is my opinion that a change in the composition and functioning of the Board must be accomplished in the near future. The time has been reached when the inclusion of four employees from the Office of Education (USOE) is not workable. For one reason, there are not four employees with specific full-time responsibility for vocational education in agriculture/agribusiness in the Office of Education. (And I consider this imperative to the operation of the Board as it is currently structured.) The time has also been reached when teachers and teacher educators must be full fledged Board members rather than being relegated to consultant status. My observation has been that we have had some outstanding Board members and we have had some who lack commitment. Public Law 740, the Federal Charter of Incorporation of the Future Farmers of America, is in need of revision. We need a Board comprised of 13 individuals as follows: four state supervisory personnel, four secondary teachers of vocational agriculture/agribusiness, four teacher educators in agriculture, and the

program specialist for agriculture/agribusiness of the Office of Education, with the latter serving as chairperson. Other than for the chairperson, the other members should be elected by the respective groups at their annual meetings. Our inventory process must result in new understanding by the profession of the FFA and more vigorous input into keeping the organization in tune with the times.

### *Supervised Occupational Experience*

Supervised occupational experience is an area of the inventory which has received considerable discussion in recent years. Our profession is fearful that this element is slipping away and without it we would lose one of the pillars on which vocational education in agriculture/agribusiness has been built. My observation is that we have talked about this a lot and, except for a few cases, done very little to remedy the decadence.

The deterioration of supervised occupational experience is closely allied with the nature of some of the other aspects of our inventory. I have mentioned teacher work load, out of date curricula, and FFA needs. If we expect to have good supervised occupational experience programs, we must provide teacher time and support for it. We must make use of many alternatives, such as school-based experiences and new strategies in placement. We must conduct significant research which documents the role of supervised occupational experience in our program. We must have pilot and exemplary programs to experiment with new approaches in supervised occupational experience. In short, considerable study is needed of the supervised occupational experience area of the inventory.

### *Adult/Young Adult Education*

Adult and young adult education has long been said to be a valuable component of vocational education in agriculture/agribusiness, and I, too, believe it is. But, many potential changes are needed. These changes should start with the delivery system which has traditionally been used. The notion that a teacher can handle adult/young adult education and the other three areas in local secondary programs is out of date. Today's agricultural industry needs a new approach to adult education. Programs are needed in agribusiness. More teachers who devote full-time to adult education are needed. Postsecondary institutions have rapidly emerged in the last two decades, and must be fitted into the scheme of adult/young adult education.

The adult/young adult education area of our inventory must be taken seriously. Based upon events now occurring, we have not been as successful as we should have been in adult education. Private industry and other government agencies are rushing into adult

agricultural education. Development associations are being formed, not only for education in agribusiness but also in farming and ranching. One example is the Big Ten Development Association, located in Northeast Mississippi, which receives \$100,000 per year from the Appalachian Regional Commission to carry out agricultural education programs with farmers. There are a number of programs of vocational agriculture/agribusiness and Cooperative Extension agents in the area being served by the Big Ten.

We must either get serious about adult/young adult education, voluntarily remove this item from our inventory, or have someone else remove it for us. There are some locations which have good adult education programs for selected areas of agricultural industry, primarily in farming and ranching. We must improve relevancy and speed of delivery. Again, research is needed to identify which items should be stocked in our inventory.

The job of educating for agricultural industry is of gigantic size. Avenues for establishing consortia of all agricultural agencies to deliver adult/young adult instruction are very much a possibility. Think of the total resources available if vocational education in agriculture/agribusiness were to join hands with the Cooperation Extension Service. We would have a systematic instructional program supported by a cadre of specialists!

### *Supervision*

Supervision has undergone considerable change in the last 15 years. This area of our inventory is hard to find in some states. Commitment to supervision has eroded at the national and state levels. More and more, a local director of vocational education is responsible for supervising the vocational education in agriculture/agribusiness programs. And this may be the place where more attention should be given.

Our inventory must show increased strength in the area of supervision. At the state level, individuals with strong leadership capabilities and a good philosophy of vocational education in agriculture/agribusiness are needed. Supervision by generalists in vocational education is not appropriate. Agricultural educators who have the authority to act and take corrective measures are needed. Supervisory personnel who are handicapped by lack of travel funds or who are reduced to "paper pushing" are ineffective.

Strengthening our inventory in supervision will involve improving the capability of administrators responsible for vocational education at the local level. The local director of vocational education must be well prepared to supervise vocational education in agriculture/agribusiness. Local vocational education

administrators will have greater impact on program quality than will the state-level supervisors in agricultural education. The role of state-level supervisors will increasingly become one of coordination, checking on compliance with regulations, and supplying information.

Our inventory must be redirected to give more credence to local vocational administrators. We in agricultural education must assist them in planning and supervising vocational agriculture/agribusiness programs. It is my observation that in most cases the quality of a local program is directly related to the level of performance expected for the program by the local administration.

### *Teacher Education*

Of the major areas in our inventory, teacher education has probably changed less in the last two decades than has either local secondary programs or supervision. This does not mean that teacher education is in a dilapidated position. Under the protective umbrella of a university setting, it has often had fewer external stresses than has supervision and local programs. Further, this does not mean that the inventory of teacher education practice should be unchanged. Teacher education must assume its rightful place with respect to the problems facing vocational education in agriculture/agribusiness, for it is responsible for shaping the preparation and philosophies of teachers and supervisors.

Teacher education curricula, like a perpetual inventory, need continual assessment and revision. Our curricula must be specific to the needs of vocational education in agriculture/agribusiness. Our curricula must develop technical competence in agricultural industry, and usually in specialized areas.

There have been a number of external forces eroding our curricula. For example, new certification regulations in my home state require nine semester hours of additional courses, with three each in career education, exceptional children, and reading. These new requirements will lessen the number of credit hours in technical areas. Teacher education curricula must include the development of relevant technical competencies. These competencies must be undergirded in the fundamentals of plant and animal science, economics and business, and mechanical skills. Further, each teacher trainee needs to develop some type of specialization, such as agricultural mechanics or agribusiness. Requiring all teacher education students to take additional courses in production agriculture areas will leave them unprepared to deal with agricultural industry. Research has identified specific competencies for employment in many agricultural occupations. If our teachers are to conduct programs for such occupations, they must have the prere-

quisite education. The notion that the needs of teachers of agribusiness classes can be met by courses in production agriculture is false.

Teachers of vocational agriculture/agribusiness need practical work experience in the overall area they will be teaching. This experience cannot be gained in a university classroom. Some teacher trainees will come to our programs with the needed experience, while others will come without it. Is it the responsibility of teacher education to help teacher trainees get the prerequisite practical experience? This is by no means an easy area of our inventory to develop.

The inventory of practice in teacher education also specifies that we have a student organization for preservice teachers. Should this be a collegiate FFA chapter, agricultural education society, Alpha Tau Alpha chapter, or some other organization? I believe the name of the organization is of less importance than the activities provided for student participation. Our preservice teacher education organization needs to help students achieve adulthood, develop needed qualities in professionalism, and prepare to serve as educators and youth group leaders. There needs to be a strong tie between the professional organizations of teachers and the preservice collegiate organizations.

The teacher education curriculum must provide for the development of leadership and personal skills. Many of our preservice students have not had the benefits of membership in a good high school FFA chapter. We must find a way to develop these skills at the university level.

The responsibility of teacher education for the inservice education of vocational agriculture/agribusiness teachers needs careful scrutiny. We need to provide for the continued professional growth of our teachers through both credit and noncredit workshops and courses.

Teacher educators must recognize their responsibilities in research. Research must be carried out to determine the effectiveness and efficiency of our inventory of practices. We need to be careful not to design research to show that we have a good inventory, i.e., what we are doing is good. Some of our research has been like a survey made of shoppers in a supermarket. If we go to an A & P food store and ask those there where they shop for food we would not get a true picture of all shoppers in our total population. We need research that gets to the cutting edge of our programs and helps us determine the good from the not-so-good.

Teacher education must recognize that it has an important leadership role in the total profession of agricultural education.

What is to be our relationship to the Cooperative Extension Service? What is to be our relationship to university-level agricultural instruction and agricultural research? What is to be our relationship to instruction and research in education? These and other questions need to be resolved in our inventorying process. When made on the basis of research, decisions are more sound than when made on our biases.

One final comment on the teacher education inventory is that we need to be careful not to bring about conditions which will create teacher educator burnout. We can burden ourselves with many peripheral activities. These are activities we add on to our programs without having substantive evidence of their being needed. Two which are gaining prominence are early experience programs and supervised field experience programs. These require time and commitment of other resources. We don't know if they are worth the effort, but we think they are. Too many of these kinds of things, when combined with the emphasis on research and publishing in the environment of universities, will likely cause teacher educator burnout. We must be sure that we keep the teacher education inventory in good order.

#### *Summary*

Yes, it is inventory time in vocational education in agriculture/agribusiness. We have had a good inventory. However, it is time to assess our program and decide what to keep, what to throw out, and what to change. Our traditions will serve as the base for the future, and should not restrict our program development. We need to conduct both physical and perpetual inventories. We need to take stock of where we are now and continue studying where we are and making the needed changes. There is a great and exciting future ahead for us. This is a good time for the "doers" in our profession to make their marks on the future.

As teacher educators, we need to ask ourselves the question from the Opening Ceremony of the FFA: "Why are we here?" Would our response be:

To practice professionalism, honor our teacher education purposes and missions, and develop the essential competencies every member of the agricultural education family should possess?

If this is our response, we will be continually assessing, updating, and building a better vocational education in agriculture/agribusiness.