

## 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 1980 was presented on December 9, 1980, at the convention in New Orleans, Louisiana.

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### WHAT ARE OUR ROOTS?

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Being chosen to present the Distinguished Lecture is an honor and a privilege which I have not taken lightly. I have never considered myself to be distinguished and have maintained over the years that the lecture is a poor method of instruction. Thus I feel sure that many of you will wonder about the selection process which has resulted in me standing before you this morning.

In previous years the person making the presentation I am about to undertake was called the "Mystery Speaker." This may be a more appropriate title for me because I am sure those of you who know me best are probably thinking, "It sure is a mystery as to how Cross can be considered a speaker."

However, as I said before, I have not taken this assignment lightly, especially as this is the 50th anniversary of this lecture. Jasper Lee told us last year that the first lecture was given by H. E. Bradford in 1930 in Milwaukee, Wisconsin.

One of the things I did in preparation for this task was to read the last fourteen lectures. I did this one August night in a motel room in a small Colorado mountain community called Oak Creek. As this community is isolated from TV reception and there was no radio in the room and my wife wasn't with me, there was nothing better to do.

This was a most revealing exercise. Almost without exception each of the last fourteen lecturers told us three things.

Number one was that vocational agriculture has had a glorious past and has accomplished many important and worthwhile objectives. Number two was that vocational agriculture is now facing a crisis. The name of the crisis was different, but each year we faced a crisis. The third point was that we must have changes if vocational agriculture is to survive.

Some of the changes discussed by these fourteen leaders in our profession are as follows:

1. We must re-define what vocational agriculture is.
2. We must decide what an agricultural occupation is because this will determine the scope of vocational agriculture programs.
3. We must increase the resources allocated to young and adult farmer programs.
4. We must increase the emphasis provided to entrepreneurship training.
5. We must strengthen the role and influence of state supervision for vocational agriculture.
6. We must join forces with major agricultural organizations and agencies.
7. We must increase our output of qualified vocational agriculture teachers.
8. We must reorganize the delivery system for vocational education in agriculture.
9. We must liberalize vocational education in agriculture.
10. We must structure a new image of vocational agriculture.
11. We must expand vocational agriculture to include students at the elementary and junior high levels.
12. We must make the FFA more relevant to classroom instruction and restructure the National FFA Board of Directors.
13. We must develop more instructional materials to aid our vocational agriculture teachers.
14. We must secure additional financial resources to support vocational education in agriculture.

I submit that as a profession we have not been very successful in bringing about change. In fact, we have had a difficult time even deciding what change might be desirable. This seemed to be evident as we planned for the 1980s during our recent national meeting in Kansas City.

As I studied what the last fourteen distinguished lecturers had to say, I was puzzled as to why vocational agriculture had enjoyed such success in the past, while apparently facing continual crises and uncertainty about changes needed for the future. The thought occurred to me that the principles which governed our past programs might shed some light. If those principles were sound at that time then, as principles, they might still be sound today and could provide tested direction for futuristic program planning.

Please think with me as I review with you some of these early principles or theorems and decide in your own mind whether or not they may still be valid.

*THEOREM NUMBER 1 -- Vocational education will be efficient in proportion as the environment in which the learner is trained is a replica of the environment in which he must subsequently work.*

This theorem dictates that the type, kinds, amount, use, and arrangement of space, materials, equipment, and supplies for a vocational agriculture program should be a replica of those in agricultural industry. It has a bearing upon the length of time devoted to skill development necessary to approach practice in agricultural industry. It has implications for the quality and quantity of production expected and has direct implications for teacher-learner ratios. It relates directly to the efficiency with which students transfer from school to employment.

*THEOREM NUMBER 2 -- Effective vocational training can only be given where the training jobs are carried on in the same way, with the same operations, the same tools, and the same machines as in the occupation itself.*

The implications of this statement are that vocational agriculture instructors must have recent agricultural employment experience in order to be skillful in the use of the latest equipment and must make use of the same tools and equipment as would be currently found in agricultural industry. It implies that work identical to that provided in agricultural industry must be used for instructional experience rather than pseudo or so-called project work. Emphasized here is that the skills taught should be those that agricultural employers would expect, and that learners should be able to move from the training situation to the employment situation with little need for adjustment.

*THEOREM NUMBER 3 -- Vocational education will be effective in proportion as it trains the individual directly and specifically in the thinking habits and the manipulative habits required in the occupation itself.*

Two important education factors are implied in this statement. First, thinking habits, which implies that the scientific or problem solving approach is being developed in students, and

second, that manipulative skills are performed with sufficient repetition for habit formation to take place. This, in turn, has implications for the length of class periods and for the total length of courses. There is also an implication that knowledge and facts are as essential for thinking as tools are for production work.

*THEOREM NUMBER 4 -- Vocational education will be effective in proportion as it enables each individual to capitalize his interest, aptitudes, and intrinsic intelligence to the highest possible degree.*

This theorem has direct implication to class size, to individualized instructional methods, to effective guidance and selection of learners, and to promotional plans for the vocational agriculture program. Here also is the implication that each specific agricultural occupation may well have its own unique requirements for admittance. For example, depth and ability in mathematics could vary considerably between various agricultural occupations as would physical and other characteristics of individuals.

*THEOREM NUMBER 5 -- Effective vocational education for any profession, calling, trade, occupation, or job can only be given to the selected group of individuals who need it, want it, and are able to profit by it.*

Vocational agriculture is not for everyone and this statement implies that those admitted should be carefully selected through effective guidance procedures and should be potentially successful as future agricultural workers. Persons should be selected on the basis of their own interests and aptitudes, and on their potential for success as agricultural employees.

*THEOREM NUMBER 6 -- Vocational training will be effective in proportion as the specific training experiences for forming right habits of doing and thinking are repeated to the point that the habits developed are those of the finished skills necessary for gainful employment.*

This statement concerns one of the most crucial requirements for successful vocational agriculture preparation. Few people could be prepared to perform skillfully without having spent sufficient time in performing the variety of skills required so that habit formation may take place, to the end that they can practice these skills at a future date. The direct implication here is for adequate lengths of time during the day, and for an adequate period of time in months to cover the skill and technical development essential for effective employment as productive agricultural workers.

*THEOREM NUMBER 7 -- Vocational education will be effective in proportion as the instructor has had successful experience in the application of skills and knowledge to the operations and processes he undertakes to teach.*

The implication in this case is that vocational agriculture teachers cannot teach that which they do not know; and since the subject matter for teachers is composed of the skills and knowledge of agricultural occupations, it would follow that teachers who are recognized as highly competent workers themselves, through actual successful employment experience, would be most desirable. The recency of any such experience is also of utmost importance if learners are to be prepared to meet current expectations of agricultural employers.

*THEOREM NUMBER 8 -- For every occupation there is a minimum of productive ability which an individual must possess in order to secure or retain employment in that occupation. If vocational education is not carried to that point with that individual, it is neither personally nor socially effective.*

We see in the above statement a direct bearing upon the proficiency expected of learners who wish to find their place in the world of work. Vocational agriculture must prepare individuals to meet the employment requirements of agricultural employers. To meet these employment requirements, there must be considerable preparation, which relates to the length of the period, day, or year required for particular offerings.

*THEOREM NUMBER 9 -- Vocational education must recognize conditions as they are and must train individuals to meet the demands of the "market" even though it may be true that more efficient ways of conducting the occupation may be known and that better working conditions are highly desirable.*

Vocational agriculture programs can never exist merely as courses in a school system, but must be considered a community-wide project. Therefore, this statement implies the dire need for the use of advisory committees; for instructors with recent employment experience; and for programs geared to existing opportunities in the community, the area, or the state. Instruction beyond immediate needs is encouraged, but not at the cost of basic current needs of agricultural employees.

*THEOREM NUMBER 10 -- The effective establishment of process habits in any learner will be secured in proportion as the training is given on actual jobs and not on exercises or pseudo jobs.*

This theorem emphasizes again the need for practical, live work on which learners may practice developing the skills essential to agricultural occupations. Learners cannot obtain the feel for the kind of work that will be done in employment when working on pseudo jobs or so-called projects. The work performed must be as similar and up-to-date with current practices in agricultural industry as possible.

*THEOREM NUMBER 11 -- The only reliable source of content for specific training in an occupation is in the experiences of masters of that occupation.*

This statement reaffirms the need for occupational analysis as the basic method for curriculum development. It also emphasizes the importance of effective involvement of representative occupational advisory committees in assisting in curriculum planning. Occupationally competent vocational agriculture instructors must use both these resources in the construction of course content.

THEOREM NUMBER 12 -- *For every occupation there is a body of content which is peculiar to that occupation and which practically has no functioning value in any other occupation.*

This statement implies that instructional programs should include close coordination between the related technical instruction and the skill development aspects of vocational agriculture programs. The application of mathematics and scientific principles to problems of the vocation should be the emphasis rather than teaching segregated subject matter courses which may or may not have direct relationship to the needs of the student. So-called broad or general areas of instruction in the subject matter unrelated to the problems at hand will have little benefit in the development of competent agricultural workers.

THEOREM NUMBER 13 -- *Vocational education will render efficient social service in proportion as it meets the specific training needs of any group at the time that they need it and in such a way that they can most effectively profit by the instruction.*

This statement emphasizes the desire on the part of individuals to learn, in that vocational agriculture should provide what learners want at the time they want it, and in relation to their own recognized needs. This theorem has particular emphasis to the adult and young farmer programs for employed agricultural workers since they will not attend courses unless they reap direct benefits which are immediately useful.

THEOREM NUMBER 14 -- *Vocational education will be socially efficient in proportion as in its methods of instruction and its personal relations with learners takes into consideration the particular characteristics of any particular group which it serves.*

This theorem implies that there is no single set of general characteristics that should be used as a basis for projecting vocational success; but rather by knowing the student's interests, aptitudes, and abilities, they can usually be guided into successful vocational agriculture experiences or guided away from enrolling in occupational training for which they are not suited.

THEOREM NUMBER 15 -- *The administration of vocational education will be efficient in proportion as it is elastic and fluid rather than rigid and standardized.*

Here the implication is for flexibility within the framework of sound standards which support good vocational agriculture

programs rather than maintaining a rigid and inflexible plan. Vocational agricultural educators should always be alert to possible improvement and be willing to continually adjust programs in light of changing employment requirements.

*THEOREM NUMBER 16 -- While every reasonable effort should be made to reduce per capita cost, there is a minimum below which effective vocational education cannot be given, and if the course does not permit this minimum of per capita cost, vocational education should not be attempted.*

Preparation for agricultural employment is generally more costly than general education, whether it be at the skilled, para-professional (technical), or professional level. This additional cost is usually dependent upon the space, equipment, materials, and the necessity for smaller class size than would be true of normal academic programs of instruction. However, this statement directly implies that it is better not to attempt a vocational agriculture program than to operate it below the economic level that would lead to success. Vocational agriculture is not cheap education, but it is economically sound.

I believe these sixteen theorems or principles are just as valid today as they were when Dr. Charles A. Prosser, the first National Director for Vocational Education, developed and publicized them in the early days of vocational education development in this country. There is little reason to believe that these basic standards have changed materially since the early development of vocational education.

As we plan for the continuation and further development of vocational agriculture programs; as we plan for and initiate changes in vocational agriculture programs; and as we plot the course for vocational agriculture in the future, I believe that these basic principles must be applied. If every vocational agricultural educator responsible for programs of instruction would only maintain this list of sixteen theorems and make a serious effort to meet them, the result would be sound, quality vocational agriculture programs. The more nearly a vocational agriculture program can approach the full realization of these theorems in its operation, the higher the quality of the program will be. Any attempt to disregard any one of these basic and fundamental concepts can only result in undermining and destroying the program of vocational agriculture for the citizens of this country.

These are our roots. If the roots die, so does the tree.

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