

formance on such examinations is believed by many teachers to reflect quite reliably the effectiveness of instruction in the courses in question.

More general examinations, such as the Graduate Record Examination, are considered good indicators of the effectiveness of a total teaching program on the basis of the average performance on the examination exhibited by students trained in a particular teaching program.

Analysis and Use of Evaluation Data

The results of evaluation of teaching should be promptly subjected to critical statistical analysis which includes more than simple averaging of ratings given various aspects of instruction. Unfortunately, such averages have, in some instances, been used to rank instructors with no effort being made to adjust the averages to remove from them variation attributable to regression of ratings on known variables of record with respect to which there are differences between classes evaluating the instruction of different teachers. Correlations of all known variables of record with ratings should be estimated; and, if the estimates are significant at low levels of probability, ratings should be adjusted to produce a new set of ratings which are not correlated with the variables of record with respect to which adjustments have

been made. Adjusted ratings can then be used reliably for evaluation of instruction, for testing of significance of mean differences of interest, and for guidance in making modifications of instruction in the future.

Initiation of Evaluation Systems

One or more of the evaluations mentioned earlier are presently being used by individual teachers on a voluntary basis, but it is not likely that any large group of teachers in any institution is using all of them in a total, organized evaluation system. Perhaps the best approach would be to initiate various parts of an evaluation system individually and experimentally for a given period of time making evolutionary modifications during the experimental period, such modifications being based on experience and analyses of results obtained.

Ultimately, a workable and satisfactory system can be evolved, but this can be accomplished only if those involved teachers, students and administrators believe that it will be worthwhile. Though no opinion poll has been conducted, the author believes that a majority would agree that an evaluation system would contribute to an improvement in teaching and satisfy, to some extent, the demands for accountability imposed upon us as teachers.

INVITATIONAL PAPER

Responsibility As Agricultural Educators

Ronald C. Smith

Whenever one undertakes a presentation such as this, it is a good idea to be sure to have the meanings of the key words clearly in mind. The two key words which are the crux of this brief talk, "responsibility" and "educators," will be defined so there are no misunderstandings of the subsequent points I intend to make.

Responsibility means to be accountable for one's action. One who is deemed a responsible person is considered trustworthy and reliable. We very seldom wish to be held accountable or responsible for failures or misfortunes and are almost always willing to accept responsibility when the results reflect favorably on our actions.

To educate (the noun of which is educator) means to develop and cultivate both morally and mentally. It is considered synonymous with to instruct or to train.

I think it is clear, then, to each one of us in NACTA just how the meanings of these two words zero in on the roles we must accept in agriculture.

Although I am a teacher in the College of Agriculture at Ohio State, I do not pretend to know the complex interactions of all phases of agriculture. I am a horticulturist, the profession about which I do know something and consequently will draw on for the examples

presented today. I hope that from my examples in my specific area, you will be able to extrapolate concepts which you may be able to apply in your own particular profession.

Let me lead you into the body of my talk by giving you its parameters: I will be addressing you to the following as a criteria for fulfilling your responsibilities as educators in agriculture.

(A) Meeting the needs of industry with our graduates

(B) Success of graduates placed in industry

(C) Actions which will expand your competency, promote and give favorable visibility to your college, and further the development of your profession.

Industry Needs

In horticultural education, we often find ourselves being accused of "vocalizing" higher education by training students to slip comfortably into specific jobs or positions open in a particular industry. I contend this largely is sour grapes on the part of those people outside the colleges of agriculture. We must be on guard, however, that we carefully integrate our classroom concepts and theory with our practical approach so that students do not fall into the trap of "pigeon-holing" their knowledge.

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Many students will read a practice or concept from a text, or hear the words spoken from the professor, and memorize this as being the only way it can be. What we have then created is a student who can pass tests, maintain a good GPA, but cannot think. We do not need to turn out more memorizers to industry, but thinkers. It is our graduate who industry is looking to for innovative ideas to keep them competitive and viable in our free market system.

This necessitates us as educators staying in touch with the needs and expectations of the leaders in our particular industry. Spend several days each year visiting with them, where you can exchange and relate problems and successes to each other. This can only help you more effectively to develop the student's curricula toward greater relevancy for his expected employment.

Our Graduate's Success

Our graduate's success is something we all hope for with each student that passes through our programs. We often assume that if we do not hear anything from our graduates or their employers, everything is satisfactory with both. This is like firing bullets into a darkened room, knowing there is a target out there, but never knowing when you score!

I have had the vicarious pleasure in a few instances when an employer has come back and exclaimed how well one of our graduates has worked out — and do we have any more like him or her? These isolated, proclaimed success stories have at their roots a basic characteristic on the part of the student. An amenable, pleasant, outgoing and winning personality. To be sure, they were superior academically as well, but so were other students who failed to impress their employers. Can we then as educators create a basic personality change in a student which help guarantee his success? In selected situations where the time and effort can be applied, this change is possible.

We can go about this by getting students to be better communicators of their ideas by building up their self-respect when deserved. Single out those students that have the potential and work with them on special projects — educational, promotional, or research. With time you will notice a change in their department: they will become more than individuals merely earning grades, but people who have finally realized that they can be effective at an undertaking, gaining self-esteem. When this level is attained, which is the basis for self-love, they have also reached the prerequisite for being able to love — not only their mates, but their work as well. I have tangible proof that such invested effort works, and nothing that I know of makes a better bonus to the paycheck!

We can go a little further and help the student decide if he is choosing the right vocation for his livelihood. We can encourage, if not insist, that he get some industry "internship" as a part of his total education. This experience many times sorts those students out who had the wrong impression of the type of employment available in their intended profession. Many industry people are hap-

py to cooperate on such an undertaking, as it not only gives them excellent visibility, but allows them to survey potential managers or decision makers.

Establish contact with the parents of some of your better students. Let them know what you see in their son or daughter beyond the grade reports. This will pay untold dividends in support for your educational efforts.

Be introspective — have yourself video-taped occasionally — or for budget purposes, audio-tape some of your lectures. Do you really sound interesting — inspiring — educative? You might be surprised at what you hear or see. Also examine your standard format — do you always lecture? Or use slides? Have you ever considered trying another approach?

Much more could be said about responsibility as educators — but I believe if we will keep the following three philosophical concepts in mind, they should aid in getting closer to fulfilling our responsibilities as agricultural educators:

- (1) "The unexamined life is not worth living."
(Socrates)
- (2) "Thinking...is a necessity of man's existence."
(Branden)
- (3) "Men ought to behave so as to achieve happiness."
(Aristotle)

Restated another way, these three philosophers are saying that as educators we must be thinkers, and we should be examining our thinking processes, and if what we find upon this self-examination is not what we like, indeed love, then we should change professions.

Lastly we must remember that intelligence is not the exclusive monopoly of genius, but an attribute common to all men, with the differences being only a matter of degree. We are responsible to all who enter our colleges for their moral and intellectual development. We must try to develop the potential of our students at all degrees of intelligence.

