My Formula for Extension Teaching

ABSTRACT

Why do extension teachers sometimes fail to teach? Why do excellent programs fail or fall on deaf ears? Several things are necessary for a successful program. The program must be carefully planned and delivered to a receptive audience. The clientele, their needs, and interests must be known, and frequently the first step for a successful program is adequate promotion to create demand and interest for your information.

Some extension people are most effective at writing, others at speaking, and still others have most success with individual counseling. Likewise, specific programs or ideas are suited especially to specific teaching methods. Personal experiences, suggestions and help of co-workers, and available assistance from related industries are often effective. No formula works for everyone and every program. Each extension worker must find the formula for a successful program.

KNOW THE AUDIENCE (STUDENTS)

Most of us take for granted that we know a fact and let’s assume we do. But we also frequently assume or “take for granted” that everyone else knows the same fact. This is the first major difference between off-campus and on-campus teaching. You might take for granted that the college student can read and write, that they are interested in learning your subject, that they will be in the classroom, and that they have basic knowledge of chemistry, arithmetic, or other appropriate prerequisites for understanding and learning your facts.

Those of you who evaluate your classroom teaching know of failures because you took too much for granted. The number of failures in extension teaching due to taking too much for granted is many times greater. This does not mean that extension clientele are trained or educated poorly. But the variation in age, experience, and background is so much greater that far less can be taken for granted. The first cause of failure is “going over the head” of the students.

The opposite mistake is often made as well. If it is taken for granted that the clientele are inferior or know nothing, they feel that the teacher is talking down to them. The on-campus student may accept this, but the young Ph.D. extension teacher is not looked up to automatically by the 60-yr old county agent or farmer. The 60-yr-old agent or farmer gladly will accept the facts the youngest specialist has to give. However, these facts must be presented as new findings or different approaches to increase or supplement present knowledge. One of my first experiences was an extension program in the early fifties on managed milking, mastitis control, and milk quality improvement. My part in a team program included a talk on managed milking. It seem clever to me to use a chart with a cartoon and the title, “How to Milk a Cow.” After several weeks of only fair acceptance by several different audiences, an experienced county agent very nicely told me to throw away my title chart. He first told me that the message was good, the presentation was fine, and the people came to learn. But the title chart turned everyone off because it said to farmers who had milked thousands of cows, “You cannot milk.” Substituting a new title chart, “What’s New in Milking Methods”, with no changes in any of the other charts or any of the discussion, dramatically improved the acceptance of my message.

For teaching any information, the first point to consider is the audience you are trying to reach. Know the clientele and respect their needs.

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TEACH PEOPLE, NOT SUBJECTS

If you learn anything from reading this, it will be because you educate yourself. I can only present an idea or fact in writing or in talking to you; if it is of any value, it will be because you decide to use it. Your thinking process will have to put the idea to work. The teacher provides by written or oral communications an opportunity for the student to become educated. "Do not put your finger on a hot stove" is good advice, but it is no good unless the student uses it. The successful teacher presents the facts in such a way that the student will accept and use them. If you fail to teach the baby to keep his fingers off the stove, then the education comes from another source, probably burned fingers.

Everyone is a teacher; husbands teach wives, wives teach husbands, both teach the bartender, neighbor, and numerous other people. It is interesting however, that the professional teacher usually answers the question, "What do you teach?" by subject matter, such as feeding, nutrition, management, breeding, etc. The emphasis should be more on the people we teach. We teach dairy farmers, livestock farmers, undergrads, grad students, or ag professionals. In extension work or off-campus and adult education, it is essential to start with the people you teach rather than what you teach.

The subject matter or facts of dairy feeding are the same for every program. But there is a difference between teaching dairy farmers dairy cattle feeding and teaching a group of county agents dairy cattle feeding.

TUTOR OR TEACHER

When I agreed to do this assignment, I was confused and really did not know where to start. My usual start on a subject that I know nothing about is to look for the definitions of the words in the title. When the deadline approached I went to the dictionary to find Webster's essay on the word teach. There are numerous definitions and several inches of fine print that include nouns like oral, written, and visual verbs such as lecture, instruct, write, and demonstrate. Also included are phrases such as to educate, to instruct, to impart knowledge, and synonyms like instruct, educate, and tutor. None of these definitions satisfied me.

However, the word "tutor" although listed as a synonym by Webster's, reminded me of an experience that taught me what teaching means. As a hungry undergraduate, I optimistically applied for a job as "tutor" for freshmen flunking Chemistry I. After being accepted, I was in the same position as now, confused and no place to start. But at the orientation session, we were told that our job was to teach the students how to pass chemistry. This relieved me greatly because I was afraid we would be told to teach chemistry. The professor obviously knew more chemistry than I, and he has been recognized nationally as an outstanding teacher. But as a teacher, his objective was to teach chemistry; as a tutor, my objective was to teach his students how to pass his chemistry test. Unfortunately, I soon learned that it would be essential to teach chemistry to accomplish the objective.

Another example to illustrate this idea comes from educational programs on dairy type and judging. Teaching type judging and cow evaluation to 4-H groups or dairymen generally failed or at best was successful only for a few. However, teaching the same students how to win a judging contest greatly improved success of the programs. The college students who learn the most about cow type are those who are taught how to do well in the national judging contest.

Selling cows to a farmer is difficult and usually results in failure. However, selling an interested farmer your cow is easy and usually successful. Extension programs that are most successful are those based on selling interested farmers, county agents, ag teachers, or agribusiness people information that will help fill their objectives. Failures occur when I start with my objective of selling information.

INFORMATION, RECOMMENDATION, DECISIONS

The basic concept of teaching and general policy of extension administration always has been to provide information. The student (farmer) makes the decision based on the information. This idea is basically sound, but in practice, a program is more apt to succeed if a final decision or recommendation is made. In reality, this is a matter of degree and certainly depends on the issue or question involved. An established or well researched scientific fact
can be taught best and adapted when a definite recommendation or decision is included.

Obviously, each student, whether a farmer, business person, or extension agent makes the final decision of what to do with the information we provide. If we do not have enough information to make a definite decision, it is not possible to teach anyone else enough to make a good decision. Providing unbiased information is primary reason for past and future of a public supported extension service. But I do not see how the extension teacher can avoid making decisions. Providing unbiased information on the advantage and disadvantage of feeding dry hay or silage is fine, but if the person is going to be effective, your bias will have to be made known. The on-campus teachers do provide final decisions or answers to questions. On the final exam, the students must agree with decisions or final conclusions of the teacher.

There are questions on comparative value of feeds, equipment, or bulls that cannot be answered and those on which the sound answer is no difference. Likewise, there may be no difference in nutritional value or cost of two feeds, but the farmer may have a strong personal preference that makes his final decision. The question or issue of how far teachers should go in providing final decisions is difficult to answer. Hopefully, the student will be educated to think and use facts rather than memorize facts and ideas of the teacher. But the undergraduate student, the farmer, and most extension students want a specific answer or at least the conclusion and recommendation of the teacher. An educational program on an issue or question that the instructor cannot solve or is unwilling to make commitment is usually a failure.

REQUESTED EDUCATION MOST EFFECTIVE

When you answer a question for a farmer or student, you can be reasonably sure that your efforts are worthwhile. The information is requested and most likely will be used. If the first attempt does not satisfy the needs, further questions and more education follow. This does not mean that the extension teacher should sit in his office and wait for requests. You can create a demand for your information.

For 3 yr I worked with our veterinarians and milk quality specialists on Brucellosis education programs. Bulletins, newsletters, and meetings were utilized poorly and little progress was made in controlling this costly disease. But through efforts of dairy farmers, dairy leaders, and research workers, state and local market regulations requiring Brucellosis control were passed. Then the circulars that previously gathered dust were reprinted in large numbers and meetings previously held in the county agent's office were moved to the high school gym.

For several years we have talked and written about the feasibility of substituting grain for hay, feed by-product for farm grains, and poor quality waste roughages like corn stalks for dairy cattle. Interest, and consequently education, were at best only fair. However, during the summer of 1976 a severe drought in Wisconsin created a demand for education on these subjects. Once again, literature that had gathered dust was in demand, and farm reporters began writing numerous stories about substitute feeds. Requests for meetings and participation in meetings quickly shifted from poor to excellent.

Hopefully laws or regulations requiring proper calf raising, DHI records, or a balanced ration will not be passed. Likewise, drought, tornadoes, or other disasters should not be asked for in your prayers to make your educational program successful. However, we should create a demand or request for the continuing education and new information that is available.

Promotion of an idea or information through mass media, demonstrations, and numerous other ways is a logical and essential part of effective extension teaching. Promoting record keeping, better feeding, hay crop silage, or calf raising would be the first step in a successful educational program for one of these subjects. If every veterinarian, A.I. technician, dairy plant fieldman, and feed salesman that visits a dairy farm promotes DHI records, dairy farmers will soon request education on dairy records.

Very few, if any, extension programs are one man or one department success stories. The most effective extension programs are those designed to solve a problem. Most problems that currently create interest are broad in scope. Reproductive problems involve diseases,
management, and nutrition so the effective extension program involves a team approach. The team should consist of service people, other public agency representatives, and county extension agents as well as a group of academic specialists. Frequently, these other members of the team are the most effective promoters of the program; they create the request that makes the educational program succeed. Failures of good programs usually can be traced to lack of promotion rather than a poor program.

**METHODS AND MATERIALS**

Time does not permit any detailed discussion of this important aspect. Most academic specialists rely on communication specialists for visuals, editorial services, and teaching methods. Our job is to be sure that we get them.

It is essential to approach any educational program with firm conviction and enthusiasm. It is difficult or impossible to sell anything you do not believe. If the teacher does not show enthusiasm and interest in the subject, you can be sure that the students soon will lose interest.

The best teaching methods vary greatly with the subject matter and even more with individuals. Some are best at writing, some at talking, and others are most effective in individual conferences. I know of no solution except for self-evaluation to find your best method and then to use it as much as possible.

Methods fit the same general format. Some subjects are well suited for general group discussion while others only can be taught well in a small group or in individual conferences. It hardly seems appropriate to start a list of methods that have been successful in my state. Extension dairy work in Wisconsin is a different ball-game from extension dairy programs in other states. For example, a state-wide dairy day in Wisconsin has a potential audience of 48,000 dairymen. With a good program we might attract 300 dairymen. The same program sponsored by one or two counties likely would attract 400 to 500. However, I have attended statewide dairy programs in other states that were successful. Recently I have been involved in a few statewide programs on our electronic telephone system for dairy goat producers, and the results have been satisfactory. For 100 specialized producers that want information, statewide meetings or statewide programs over mass media work well. The same idea does not work the same way for a potential audience of 48,000 dairymen.

Methods and materials are extremely important. The most important things are to give both careful study, consider your own ability and interest, and, finally, give a try. When you find a good method, use it; if you try something and fail, be sure to change.

**EVALUATION**

The on-campus teacher has a problem in determining success in teaching. Usually heavy emphasis is placed on the ability of the student to answer specific exam questions. Unfortunately, the test method largely measures the ability of the student to memorize facts or ideas rather than ability to use the facts and ideas to think about the subject. Student evaluation is likewise of limited value. The student may be more concerned and thus more enthused when he gets a good grade. Frequently I hear a county agent or farmer comment that after he graduated and worked for 6 yr, he could better evaluate the instructor and courses he took 6 yr ago. Finding any objective way to evaluate teaching is a real problem.

Extension teaching is even more difficult to evaluate objectively. No exams are given, and student evaluation forms are used less extensively. The best measure I have found is self evaluation. By objectively evaluating the general acceptance of your program, it is possible to distinguish between success and failure. Repeated requests for meetings, telephone calls, letters requesting information, literature requests, and co-worker evaluation are useful tools for evaluation. However, for either on-campus or off-campus teaching, good, objective evaluation methods are unknown. Numbers of meetings, numbers of letters, etc., are recorded, but actual results or action taken because of your teaching is seldom measured or known. The well informed or educated person had to do the learning; usually your information is only part of what he needed. The best teacher is the one who stimulated the individual to think about the subject matter and to use the facts and ideas available. There are no
substitutes for good basic academic training and experience on the subject matter field of your responsibility. However, to be an effective teacher, it is also necessary to be an effective communicator and a practical philosopher and psychologist.