Points of View

Methodology

Methodology must be given careful consideration as Cooperative Extension personnel face the challenges posed in *A People and a Spirit*.

The methods and techniques that have worked well with middle class farmers, homemakers, and youth won't effectively do the job with lower class people, either in the urban slums or along the shady country lanes.

I think there is considerable evidence that new Extension programs fail or do not reach their full potential because we attempt to implant new programs using the same methodology we have used for very different programs.

*To illustrate, a member of a committee now studying Extension's involvement with low income farmers in North Carolina said, "Since most of the people with whom we will be working are not regular Extension Service cli-*entele, the organization will probably have to revert to methods of 30 years ago. That is, much personal consultation. It is doubtful if literature itself will suffice."

I'm not sure methodology can be this easily categorized by time periods but there is certainly a lot of truth in his comment and recognition of differences in methodology.

In adult education circles *method* has been defined as the relationship or link between the institution or agency conducting the educational program and the student or participant involved in the program.

Technique has been defined as the relationship established by the individual agent or teacher and the way in which he arranges the relationships of learners and resources to assist the learners in the learning situation.

Coolie Verner of the University of British Columbia, who has given considerable thought to adult education methodology, has suggested that it is easier to transfer techniques across cultural lines than it is to transfer methods. He made this statement with particular reference to international programming. His statement implies that while many of the techniques we use in Cooperative Extension might be effective in underdeveloped countries, the Cooperative Extension Service, organized as it is in this country, might not be.

There are implications here for us as *we attempt to operate at somewhat different social and cultural levels.* In other words, to meet the goals set up in *A People and a Spirit* might require adjusting our organizational structure and staffing patterns as well as adjusting methodology.

It also would seem appropriate to consider the effects of technological changes on methodology with groups we have been successfully working with through the years. Let's specifically consider commercial farmers since much criticism of the new program has come about because of placing relatively less emphasis on this clientele group. Several farm magazines have been particularly critical in this respect.

I think it is a bit ironic because a quarter century from now we could very well be in a situation where neither the Extension Service nor farm magazines will be serving the commercial farmer—at least not with the present monthly publications or the local county agent concept.

By this time he will surely have a computer terminal in his office which will be tied in to the agricultural college or some other reliable information source. When a problem or need for information arises he will simply feed the appropriate data into the computer through his own terminal. The computer will then provide the desired information. Thus, whoever services the commercial farmer in terms of education might well be the one who controls the computer.

This projection stretches well beyond the 1975 data used in the study. But in planning for the next five years we must also give thought to possible developments over the next 25.

The study committee was undoubtedly doing this when they recommended that the best use of available staff be made "by utilizing new electronic teaching devices, new communications systems, and new teaching techniques."

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Making Theory Work

All too often we recognize that as we supply the answer to the question, the client comes back the next time, seeking almost the same information. The soybean producer who asked for advice on when to harvest for maximum return in 1968 comes back in 1969 for the same help. When this happens it is because we did not properly identify the behavior change he was to make as a result of the interview: He was told when to harvest—not how to recognize when to harvest.

His city cousin may have been told where to locate a commercial zone in the city plan—not how to decide where to locate the zone lines.

Very often this is more the fault of the client's "selective deafness" (hearing only what he wants to hear) than the kind of help that was offered by the agent. But our work is not to assign blame, it is to help people learn. We can all do a better job at this if we resharpen and perhaps reshape our teaching tools.

The first important teaching tool is to focus sharply on the *most important* need. What change must there be in the client's behavior? Is it just that he get this crop in at the right time, or zone this area effectively? Or is it *most important* that he understand what information he needs and how to decide when the crop comes in, or where the zone line ought to go? He may think it is the former question, but a part of our work is to help him recognize his own greatest need, and then to help satisfy it—to lead him to change his behavior (actions, attitudes, or values) as a result of some learning.

We have fallen short of our best job if we don't achieve this first step, and we cannot do it unless we, ourselves, keep this analytic tool sharp. We need to ask ourselves: "What are the sources of the client's need; how may these needs vary with respect to age, environment, etc.; how might failure to meet the needs influence the client or his family or group; how do the values of the individual or his society influence his needs?

The answer to these questions tells us what the client needs to learn. It becomes a statement of a goal or an objective, and it should be just as clear and definite as it can possibly be, so we can tell whether and when it has been accomplished. The statement should identify the behavior within the conditions that prevail, and thus define the basis for acceptable performance.

For instance, "Johnnie Zilch needs to know the way to determine soybean harvest time for maximum return," or "Sam Brown needs to understand the rationale of zoning boundaries." How do they show you that their need has been met? By making the decision themselves; or by showing you in a sample situation, wherein the appropriate information is supplied, that they can execute the decision-making process.

If the need has been simply for added knowledge, the client can show

his newly learned behavior by using that knowledge. When the need is for a change in an emotional state or feeling, the change is found in new interests, attitudes, or values. Where motor skills or coordination is the defined need, the proof of the pudding is, of course, the ability to do what could not be done before.

When we are approached by a client, or when we plan a program with these ideas in mind we are able to determine several things that will decide between success and failure: We can distinguish between the possible and the impossible behavior changes; we can distinguish between short-run and long-run goals; we can determine where to start with different learners of different backgrounds; we can set standards that will gauge progress; and we can select integrated goals which reinforce each other.

Let me restate the process in terms used by educational psychologists: As we analyze potential behaviors in terms of self-activity, frequency, distributed practice, overlearning and relearning, we will be better able to design learning experiences that determine (1) in what kind of behavior will the learner need to engage in order to learn and (2) how can situations be designed to enable the learner to perform the given behavior?

With this introduction, or refresher, perhaps these and other concepts of educational psychology will give new meaning to the saying that "there's nothing so practical as a good theory!"

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Misusing Statistics

As professional Extension workers, we are bombarded with literature concerning research with "statistically significant" results. Every day agents are asked to interpret "findings" that concern the consuming public. All of us, however, need to be reminded of the pitfalls as well as the advantages of using and interpreting statistics and statistically-based research results. I recommend the paperback book *How to Lie with Statistics* ($1.95, W. W. Norton & Co., New York) as a worthwhile investment in both time and money.

The author, Darrell Huff, reminds us that a seemingly significant "50 per cent" may be based on a sample of 10 people, that an average figure of $500 may range from $1 to $1000 but with the majority below $500, or that an average temperature of 65 degrees over a period of 10 years does not tell how many days were below zero degrees or how many were over 100 degrees.

Huff uses humor and understandable language in relating examples of how statistical statements—and many advertisements—can be misleading. If only more "scientific" authors and ad writers, consumers and educators would read this book!

MAURICE E. JOHNSON

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To the Editor

I have a question for your readers concerning projects similar to the Wisconsin Leadership Development project. The primary purpose of the project is to develop materials and methods whereby adult leaders of youth can learn about the basic facts concerning leadership on an independent, individual basis at home.

Our team of youth development agents and specialists are in the process of developing a multi-methods series of seven units to be used for this independent study.

We could use reports on experiences of others in this matter. Our question is: Has anyone tried independent study for any extension education program and if so would they please share their results with us?

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