Research in Brief

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PROJECTING EXTENSION PROGRAMS

The task of projecting educational programs involves forecasting changes which are likely to occur in the audience of the programs, identifying new audiences, inferring the educational needs of those audiences, and inferring from the needs necessary changes in the educational institution and its programs.

The study reported here began with a search of literature concerning program development and projection in Cooperative Extension, business, and industry. Based on the search, a program projection model was developed with the following steps:

1. Forecast (a) general population changes along trend lines and (b) population changes of groups within the general population (such as the number of dairy farmers in 1980 or the number of citizens expected to be age 65 by that date).
2. Assess the effects of modifying factors that are expected to influence the forecast (social attitudes, habits, technological change, etc.).
3. Infer potential problems based on past behavior and actions of this or similar groups, assess modifying factors, and project educational programs to meet expected problem situations.
4. Analyze changes and educational program in terms of: (a) present educational organization functions, structure, and objectives; (b) present and planned future programs and audiences of the organization; (c) project resources to be needed and resources expected to be available; and (d) determination of "on-going" educational program modified by previous parts of the model.

A fast-changing area for which statistical data were available was selected to project forward to the present. Forecasts of changes were made; then a survey of the area was made to determine the validity of the procedure used.

All farm operations of 100 acres or more and a 50 per cent sample of the less-than-100 acres operators of Southold Town, Suffolk County, New York, were studied. A total of 97 interviews was completed. Data

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from other studies and Bureau of Census were used to make inferences concerning the nonfarm population.

General population trends gave only broad hints of possible future situations and were not good indicators of definite educational programs. Population changes in clientele groups gave data on which to base educational programs.

In some situations forecasts indicated that a group within the population would be reduced or eliminated completely, highlighting the problem of when and how to shift educational resources to other clientele groups. Maintaining acceptable quality in educational activities to a dwindling audience is a companion problem.

In general most forecasts made in the trial of the model tended to underestimate the actual change rate even when corrected by adjustments for known accelerators. They were close enough, however, to permit programming for a group of reasonable size. Familiarity with the clientele group is needed to make the final program determination and references of problems most likely to be faced.

Most of the items suggested by the model are not new. The difference lies in the order of consideration which permits the aims and objectives of clientele and the educational organization to be considered.

Leonard C. Douglas, "Projection of Informal Educational Programs through Forecasting." Unpublished Ed. D. dissertation, Cornell University, 1966.

Improving Planning Procedures

Illustrative of the kinds of data on which program projection can be based is a comprehensive study of a selected farm-related audience in San Luis Obispo County, California. The researcher obtained 134 responses on a comprehensive seven-page questionnaire mailed to a sample taken from current Extension commodity lists and Farm Bureau membership lists.

In the information secured were data on age (average age is 50.2, one-fifth are over 60, only five per cent under 30), enterprise (beef and field crops predominate), education (more than one-third have had some college), social participation (members of three groups, have been officers in two, most attend one to six meetings a month, one-eighth attend seven or more), leadership patterns, willingness to serve on planning committees, and a variety of other items. With the addition of local committee studies and data available from other sources, the information collected could provide the basis for forecasts and projections of the sort described in the research reported above.

In actual program projection, the methods used in this study could be modified. The mailed questionnaire was not returned by about one-third of those who received it. A direct interview, or "mail-out, pick-up" approach to a slightly smaller sample would cost about the same, would provide direct contact with clientele, and would probably be as valid. Response would be proportionately higher and greater representativeness would offset smaller numbers.

Dale C. Cannon, "Improving Extension Program Planning Procedures in San Luis Obispo County, California." Graduate study summary, Washington State University, Pullman, Washington, April, 1965.

More on Adult Learning

Age of adult learners apparently has little relation to learning performance, according to the results of a series of four experiments conducted with 208 adults by the Office of Adult Education Research at the University of Nebraska. The four tests were designed specifically to measure the effect of prior directions, attitudes, learning in related fields, and speed of presentation on adults with different background characteristics. Characteristics considered were age, sex, prior participation in adult education programs, and socioeconomic status.

Giving instructions on what points were important had little effect on learning efficiency but appeared to help the older adults more than the younger. No other relationship was apparent between age and performance. Prior participation in adult education appeared to facilitate performance as did socioeconomic status (the latter was highly related to measured intelligence, which probably accounts for its effect).

There was no evidence of increased rigidity of attitude among the older participants, and prior learning of similar material had no effect on learning performance. All learners performed best when allowed to proceed at their own speed.

Douglas D. Sjogren and Alan B. Knox, *The Influence of Speed and Prior Knowledge and Experience on Adult Learning.* Cooperative Research Project 2233, University of Nebraska, Lincoln, Nebraska, 1965.

What's Ahead in Extension Staffing

Demands for increased technological advance in agriculture have been the most important factor in changes in Extension staffing in recent years and are likely to exert an influence in the future. A survey of the directors of Extension in 12 of the continental United States reveals, among other things, that:

1. The composition of the Extension staff has become more specialized in recent years and the directors expect it to become more so. Directors in two regions expect the number of agent jobs to decrease and the number of specialists to increase, especially at the regional level.
2. Although some increases are expected in fields such as sociology and adult education, few subject-matter disciplines outside of agriculture are considered acceptable preparation at present.
3. Academic preparation will move up about one degree level by 1970. A few persons with bachelors' degrees will be employed in generalist jobs at the county level, but specialist jobs at the county, area, or state levels will require at least a master's degree.

The staffing model developed by the researcher indicates that both external and internal forces play a part in determining staff output.

Runyan E. Deere, "An Analysis of the Nature of Change in Staffing the Cooperative Extension Services with Special Reference to the Educational Requirements of College Graduates." Unpublished Ph.D. dissertation, University of Wisconsin, Madison, Wisconsin, 1965.

FARM WOMEN'S USE OF COMMUNICATIONS MEDIA

Farm women rely heavily on the communications media for certain purposes or functions, according to a study of 540 Wisconsin women. The investigators used four types of questions to get at the ways in which the various mass media are used. The investigators hypothesized five functions (information, entertainment, social prestige, companionship, and social contact) as functions served. They found that the women use the media in an interlocking fashion and that no one medium serves a single function.

In open-ended questions, farm and women's magazines were specified most often as information media. Television was named most often as an entertainment medium and newspapers drew most mentions as a means of social contact.

When projection techniques (questions asked about what is happening in a series of pictures depicting women using various media) were used, the entertainment factor assumed greater importance. Entertainment became the dominant factor on semantic differential tests. Open-ended content questions revealed prestige as a factor only when it was the subject of a direct question.

Background data on media use revealed that 98.5 per cent of the homes had at least one radio, 94 per cent had television, 95 per cent took at least one farm magazine, 78 per cent took at least one daily newspaper and 61 per cent took a weekly.

The women in this study spend in the neighborhood of 6 or 7 hours a day in contact with some form of the mass media.

John E. Ross and Lloyd R. Bostian, *Functional Orientation of Wisconsin Farm Women towards Mass Media.* Bulletin 33, Department of Agricultural Journalism, University of Wisconsin, Madison, Wisconsin, August, 1965.

NO ONE ever reads a book. He reads himself through books, either to discover or to control himself. And the most objective books are the most deceptive. The greatest book is not the one whose message engraves itself on the brain, as a telegraphic message on the ticker tape, but the one whose vital impact opens up other viewpoints and, from writer to reader, spreads the fire that is fed by the various essences, until it becomes a vast conflagration leaping from forest to forest. —ROMAIN ROLLAND.

GENERALIZATIONS THAT WORK are very precious things. They represent the essence of man's knowledge. They are distilled painstakingly drop by drop from the great mass of research. These precious generalizations enable man to predict and control his environment. —JESSE S. NIRENBERG.