DOCUMENT RESUME

ED 036 768 AC 006 574

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TITLE Options for Evaluation of Adult Education: Research or Subjective Judgment.
PUB DATE Feb 70
NOTE 14p.; Paper presented at the Adult Education Research Conference, Minneapolis, Minnesota, February 27-28, 1970

EDRS PRICE EDRS Price MF-$0.25 HC-$0.80
DESCRIPTORS *Action Programs (Community), *Action Research, *Evaluation Techniques, *Research, *Research Methodology

ABSTRACT

Evaluation research is currently facing a crisis. At the same time that federal and other funding sources are placing increasing emphasis on evaluating on-going programs, action personnel are becoming more and more skeptical about the value of such research. Evidence of this skepticism can be found at any gathering of evaluators. Certainly, different frames of reference guide researchers and educational programers. However, in the long run, both are aiming at the same goal -- a more effective program. This suggests that there is enough common ground between researchers and programers to provide a basis for working together, and that some adequate compromise can be struck between the needs of research and those of education programs. (author/mf)

OPTIONS FOR EVAIUATION OF ADULT EDUCATION: Research or Subjective Judgment

by

Eleanor K. Caplan, Ph.D.

Evalu'aion research is currently facing a crisis. At the same time that Federal and other funding sources are placing increasing emphasis on evaluating on-going programs and demonstrations, action personnel are becoming more and more skeptical about the value of such research. Evidence of this can be found at any gathering of evaluation researchers. At such meetings, the conversation inevitably turns to the "inability" of action personnel to understand the needs and requirements of research, or to appreciate what research can do for them.

Different frmaes of reference guide researchers and educational programmers. However, in the long run, both are aiming at the same goal --- a more effective program. This suggests that there is enough common ground between researchers and the directors and staff of education programs to provide a basis for working together, and that some adequate compromise can be struck between the needs of research and those of education programs. Outlining some of the steps necessary to reaching this compromise is the purpose of this paper.

Experience suggests that such a compromise must begin with a rethinking of the role of research by those engaged in it. Rethinking of the role of evaluation research in educational programs requires consideration of definitions of such research --- obtaining a clear understanding of what evaluation research is, and what distinguishes it from other kinds of research.

Although evaluation research resembles other social scientific research in its tools and methodology, it differs from such research in two major features: Its purpose, and the limited control which the researcher has over the conditions and structure of the research.

For all programs designed to bring about change, evaluation has been defined as the determination of the results attained by some activity designed to accomplish some valued goal or objective.[1] Adding the word research to the basic concept of evaluation implies the use of the scientific method to obtain this information.

In education, evaluation research is essentially a process of making a rational, documented judgment about the effectiveness of a course in achieving the ends set for it by its designers. As such,

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1. Suchman, Edward P. Evaluative Research; Principles and Practice in Public Service and Social Action Programs. New York: Russell Sage Foundation, 1967. Pp. 31-32.

its purpose is to provide educators with feedback concerning the success or failure of their efforts, and the reasons for it.

This information is intended to enable educational programmers to improve on-going and future courses and curricula, and to persuade "taxpayers and parents that adequate results are coming form the billions spent for education each year."[2] It is apparent, then, that evaluation is a peculiar species of research, in that its major function is to provide service to programs and funding sources. In this it differs from basic research in which answers are sought for their own sake. Failure on the part of researchers to keep this in mind can compound the already complex problems of evaluation research.

Researchers are drawn into an educational situation to "be participants in the policy-making process through the exercise of special skills."[3] They are thus as intimately involved in and responsible for the program as its staff members, and should be equally concerned with its ultimate success. Forcing themselves to accept this, and to abandon the outlook of the outside researcher passing some sort of

2. Iwamoto, David, and Norman E. Hearn. "Evaluation is a Full-Time Job," American Education, April, 1969.

3. Rossi, Peter H. Practice, Method and Theory in Evaluating Social Action Programs. Revised version of a paper presented at the annual meeting of the American Statistical Association, 1966. March, 1968.

Olympian judgment on a course is a vital first step in establishing a productive working relationship with program staff.

Evaluation research also differs from basic research in the amount of control which the researcher has over the conduct and conditions of the research. The research is in and of something larger than itself --- the program ---and, because it is applied research in the strictest sense of the term, its goals are subordinate to those of the larger entity.

In this situation, [illegible] the researcher retains control and responsibility for the choice of conceptual framework and for the technical aspects of collecting and analyzing the data. He remains dependent on the program director, however, in several important matters. The programmer is in control of program, personnel, and every activity which occurs within the context of the program. Thus the researcher is dependent upon the good will of the program director at nearly every step of the research process. The program director, on the other hand, must view the needs and goals of research as secondary to those of the program as a whole, and so frequently looks upon the precence of the researcher as a necessary evil at best.

It is imperative that the researcher understand these two facts about evaluation research --- that its role in a program is instrumental and supportive, rather than primary, and that it is subordinate to and dependent upon the program and its staff. Once this understanding is established, the researcher is prepared to take steps to maximize a mutually productive relationship between himself and the staff and directors of the program.

The first responsibility of the researcher is to make the role of research in the program, and its potential value, clear to the program director and his staff. Many researchers fail to realize initially that most action personnel are skeptical about the value of research.

This skepticism stems from a number of causes --- some rational and some purely subjective and personal. Many times, evaluation research has been forced on the program by fiat from a funding source; resistance is such cases is understandable. Frequently, the necessarily ruthless analysis of program objectives and activities is viewed as an effort to undermine the program and question the competence of the staff.

Research activities invariably interfere with the ongoing work of the program to some degree, and consume a portion of the total program budget which committed programmers feel should be used in direct assistance to the target population.

The dependence of the researcher on the program personnel means that [illegible] understanding of, and commitment to, the research on the part of the programmers are essential to the ultimate success of the research effort. Unless this initial skepticism, and the resistance which springs from it, are oversome early in the relationship, any hope of a productive collaboration between research and program personnel is lost. For this reason, the researchers should feel a strong obligation to stabilize and clarify the relationship between the research and the program before the particular design for the research is chosen.

The second major step which the researcher must undertake is the establishment and maintenance of the ongoing and cooperative interaction with the program director and professional staff which will make it possible for the research to fulfill its role.

The initiation and early stages of this interaction must coincide with the preplanning and planning phases of both program and research. Research which is initiated and planned after the program begins operations can never fulfill the potential which both the resaercher and the programmer should expect from it; many effective research tools and designs are eliminated from consideration by such a late start.

And, just as the researcher expects and needs to be included in the planning of the courses included in the program, so must he recognize the right and need of the program director to be included in the planning of research. The phases of pre-evaluation planning in which interaction between research and program staff is vital include; The statement of the problem, formulation of hypotheses, and selection of a research design.

In evaluation research, the problem and the hypotheses which procede from it are to a large degree pre-dtermined. An educational demonstration or other action program is initiated in response to an identified problem or deficiency in the community. Furthermore, the form and nature of the program is based upon an overt or covert hypo-

thesis about the cause of the problem and the kinds of actions which will alleviate it.

Evaluation research is essentially designed to determine whether these actions do in fact alleviate the problem, in what degree, and under what circumstances. Thus, a clear statement, by and with programmers, of the problem under attack, of the assumed relationship between it and the programmatic solutions, and the expected or desired consequences of the action of program activities on the problem are essential to effective development of a research design.

Contrary to the opinion of many program personnel, the researchers are <u>not</u> better equipped or able to provide this kind of statement than the program director and his staff. He can, however, assist the program personnel in making the nature of the problem, hypotheses and expected results explicit enough to form the basis for design of a pertinent methodology.

When this kind of cooperation occurs early in the program planning phase, it frequently provides a valuable by-product in better understanding on the part of programmers of <u>precisely</u> what they want to do. This can make it possible for the programmer to include in the design

of the program activities more closely alligned with its ultimate purpose(s).

Cooperation between researchers and program directors and staff is also essential in selection of the basic research design. Many researchers --- and programmers --- feel that, once program goals and objectives are adequately specified, selection of an appropriate design follows naturally, and can be done semi-automatically by the researcher.

I propose that this is not the case, and that; further, this assumption on the part of the researcher is a heavy contributor to subsequent friction and misunderstanding between researcher and programmers.

The possible variations in evaluation research design are even greater than in non-evaluative research --- runningthe gamut from subjective judgment to the most rigorous experiment. A brief consideration of some of the forms which such designs can take may help to illustrate this. In his book on evaluation research, Suchman provides a brief inventory of evaluative research designs.[4] The ones most commonly used in evaluation studies are:

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4. Ibid., pp.91-114.

The Pre-Test, Post-Test, Control Group Design. This consists of setting up two equivalent groups of subjects, either by matching or random assignment. Both groups are then administered some sort of instrument designed to establish a base line from which change --- hopefully due to the intervention of the program --- can be evaluated. One group is then exposed to the program, and the other is not. The measuring instrument is administered a second time, and the before and after scores of each group are compared. The test of program effectiveness is the difference between the scores of the group which was exposed to the program and the one which was not.

The use of the control group, and of before and after measurements, is intended to insure that change has occured, and that this change can be attributed to the intervention of the program.

This is the classic experimental design, translated from the traditional laboratory setting to the "field." All other designs in social science research which can legitimately be called research are variations on this design --- primarily compromises necessitated by limited funds or force of circumstances. It must be clearly understood that each compromise with the rigorous structure of this "ideal" design

lessens the reliability and explanatory power of the results.

The Static Group Comparison is similar to the ideal design in that two groups are used, and that one is exposed to the program and one is not. However, the measuring instrument is administered only after exposure, and the test of program effectiveness is the difference between the scores of the two groups on this post-test. The principal problem with this design is that one does not know whether the two groups would have had equivalent scores on the instrument if they had been tested before program exposure.

The One Group, Pre-Test, Post-Test Design. In this design, only one group is used --- the subjects enrolled in the program ---and they are administered the measuring instrument before and after program exposure. The test of program effectiveness is the difference between the scores of the group in the before and after measurements. The weakness of this design is that change as measuerd may not be the result of participation in the program, but of some extraneous influence in the lives of the subjects.

The One-Shot Case Study. This design uses only the participant

group, and administers the measuring instrument only after program exposure. There are several varieties of one-shot design. One frequently used is what Suchman aptly calls the "is everybody happy" design, which takes testimonials from the participants. Although this frequently gives insights into the effectiveness of the program, the results have little scientific validity.

A more "objective" variation on the one-shot design administers instruments designed to obtain more of ameasure of change from the subjects than their opinions of the program. However, even in this case, one cannot assess the amount of change, nor safely attribute it to the intervention of the program.

The Longitudinal Design resembles the One-Shot Case Study in that it uses one group. However, the group is administered the measuring instrument periodically over a long time span, and their progress is charted from comparisons of scores over time. Although problems of attributing change to the program still exists, this is a valuable tool for evaluating long-term, ongoing programs, where cross-sectional designs might provide distorted or inadequte results.

If one can say that these designs range themselves on a continuum, with the most powerful and rigorous design ---the classic experiment --- at one end, then the last design to be considered must certainly fall at the other end. This design Suchman calls "evaluation" rather than evaluation research, on the grounds that, although it too involves making a judgment of worth or effectiveness, it includes no "systematic procedures for marshalling anf presenting objective (scientific) evidence to support the judgment."[5] This is the process frequently used by program directors and staff in which the year-end evaluation consists of a narrative recording their very professional, but very unsystematic impressions of the progress of the program.

In evaluation, as in other kinds of research, the decision as to which of these designs to use must be based on a number of factors. Some of these are purely research considerations, and a number are matters of administration, finance, and policy concerns. The latter are, and must be recognized as the province of the program director.

The educational programmer is operating in a situation in which he must obtain the maximum value from increasingly scarce resources.

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5. Ibid., p. 7.

The best and most rigorously scientific research may not be best for the program; it may eat up too large a proportion of the allocated funds, it may be too sophisticated for the purposes of the program, or it may be too disruptive of program operations. And, the researcher must keep in mind that, in the long run, what is best for the program is a decision which must and will be made by the program director.

The researcher has, however, a particular responsibility in this situation. Because of his specialized knowledge of the ins-and-outs of research, the researcher must make the various feasible alternatives in design, and their costs and implications, known to the program director.

Thus, successful pursuance of evaluation research must be built on close cooperation and an appropriate division of labor between research and program personnel. Both must recognize and act upon their mutual dependence, while recognizing and exploiting the competencies of each. Hoprefully, the result can be evaluation research which is meaningful both in scientific and action contexts.

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SUMMARY

Evaluation research is currently facing a crisis. At the same time that Federal and other funding sources are placing increasing emphasis on evaluating on-going programs and demonstrations, action personnel are becoming more and more skeptical about the value of such research.

Different frames of reference guide researchers and educational programmers. However, in the long run, both are aiming at the same goal --- a more effective program. This suggests that there is enough common ground between researchers and the directors and staff of education programs to provide a basis for working together, and that some adeqaute compromise can be struck between the needs of research and those of education programs. Outlining some of the steps necessary to reaching this compromise is the purpose of this paper.

First, the researcher must understand and come to terms with the fact that evaluation research differs from non-evaluative, or basic, research in its purposes, and in the limited control which the researcher has over, the research situation.

Secondly, he must take the initiative in making the role, and the potential value of research known to the educational program. Initial resistance to research and researchers, whether it is based on rational or purely personal and subjective causes, must be overcome if the research is to be of any value to the program.

Thirdly, the researcher must endeavor to establish and maintain

an on-going, ccoperative interaction with the program director and staff. The initiation and early stages of this interaction must precede both the commencement of the program and the choice of a research design.

This interaction must, in these early stages, particularly focus on three elements ofpre-evaluation planning: Statement of the poblem, formulation of hypotheses, and selection of a research design. Since the problem and research hypotheses spring from the goals and stimuli of the program, the program director's particular knowledge of the program demands that he be included in the discussions which culminate in decisions in these matters.

Moreover, the ultimate decision about the choice of research design is the prerogative of the program director. The design, and the research itself, have value ~~only~~ primarily/in their contribution to the improvement of the program and the amelioration of the problem to which it is addressed.

The educational programmer is operating in a situation in which he must obtain the maximum value from increasingly scarce resources. The best and most rigorously scientific research may not be best for the program ; it may eat up too large a proportion of the allocated funds, or it may be too sophisticated for the problem to which it is addressed. And, the researcher must keep in mind that, in the long run, what is best for the program is a decision which must and will be made by the program director.

The researcher has, however, a particular responsibility in this situation. The variations in design of evaluative researchare even

greater than in non-evaluative research --- running the gamut from subjective judgment to the most rigorous experiment. Because of his specialized knowledge of the ins-and-outs of research, the researcher must make the various feasible alternatives in design, and their costs and implications, known to the program director.

Thus, successful pursuance of evaluation research must be built on close cooperation and an appropriate division of labor between research and program personnel. Both must recognize and act upon their mutual dependence, while recognizing and exploiting the competencies of each. Hopefully, the result can be evaluation research which is meaningful both in scientific and action contexts.