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CSE, MO and AA: Three Evaluation Strategies

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Evaluation

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A model for, a method of, and an approach to evaluation are summarized and discussed in this column. The CSE model, developed at UCLA's Center for the Study of Evaluation, is a decision-oriented model; the Modus Operandi Method presents an alternative strategy which can be used when experimental or quasi-experimental designs cannot be used; and the Adversary Approach suggests a process through which all positive and negative features of a program can be identified.

The CSE Model

Marvin Alkin, former director of the Center for the Study of Evaluation, derived the CSE model from his definition of evaluation:

Evaluation is the process of ascertaining the decision areas of concern, selecting appropriate information, and collecting and analyzing information in order to report summary data useful to decision-makers in selecting among alternatives (Alkin, 1972).

Because the definition, as well as the assumptions on which it is based, are closely tied to the decision-making process, evaluations are classified according to five decision categories and the kinds of information required for making the decisions. Alkin refers to these as evaluation need areas.

The first need area is called *systems assessment* and refers to evaluations that are necessary to provide information about the current status of the system. The difference between what is and what is desired represents a need and results in a statement of objectives written in terms of desired program outcomes. The second

area, *program planning,* refers to information that will help the decision maker select a particular program that is likely to be effective in meeting the specified needs identified in the first stage. The function of the evaluator is to provide information concerning the potential effectiveness of different courses of action so that decision makers can choose the best from among the alternatives presented.

Once the program has been selected (or designed), an evaluation of *program implementation* provides information concerning the extent to which the program is being carried out in the way it was intended and information showing whether or not it is being provided to the group for which it was intended in the program plan. *Program improvement,* a fourth need area similar to formative evaluation, requires evaluative information concerning the manner in which the program is functioning—the attainment of *en route* objectives, the presence of unanticipated outcomes, and the relative success of the different parts of the program. Information collected in this stage should include data on the extent to which the program is achieving its intended objectives and information concerning the impact of the program on other processes and programs.

The fifth and final area of the CSE model is *program certification.* Similar in concept to summative evaluation, the evaluator's function is to provide information concerning the worth of the overall program, again in terms of both the extent to which the objectives have been attained and the program's impact on the outcomes of other programs. The information collected by the evaluator at this stage should enable the decision maker to make decisions regarding the future of the program. The decision maker has four choices: to retain the program as is, modify it, disseminate it or terminate it.

Stages two through five are similar to the first four stages of the Discrepancy Model.* Process has been separated into program implementation and program improvement, and as far as Alkin is concerned, cost-benefit analysis, the fourth stage of the Discrepancy Model, is assumed to be part of every stage in his model.

The advantage of the CSE Model is that it is applicable to the evaluation of both discrete, definable instructional programs and broad-scale educational systems. In fact, Alkin argues that evaluations at the macro level of large educational systems require total

* The Discrepancy model was discussed in this column in the previous issue of the *POD Quarterly.*

examination beyond determining the extent to which program objectives have been achieved. For large-scale evaluations, the examination must include inputs, descriptions of alternative processes used within the system, descriptions of the input-output relationship and data on unanticipated outcomes or consequences in addition to data on the achievement of intended or desired objectives. Unfortunately, Alkin's advice has not often been heeded.

Modus Operandi Method

The Modus Operandi (MO) Method is suggested by Scriven (1974) as an alternative when experimental or quasi-experimental designs cannot be used. The theoretical base of the MO method, which derives from procedures employed by historians, detectives, anthropologists, and engineering "troubleshooters," is really quite simple. A program is investigated to see if it was the cause of a certain set of effects. As Scriven explains, "the MO of a particular cause is an associated configuration of events, processes, or properties, usually in time sequences, which can often be described as the characteristic causal chain (or certain distinctive features of this chain) connecting the cause with the effect."

Certain effects are assumed to be caused by one or more factors, which Scriven calls a "quasi-exhaustive causal list." The presence of each of these factors is checked, and if only one is present, the investigator checks for a "causal chain"—the configuration of characteristic events, processes, or properties that may connect the cause with the effect. If one causal chain is present, that chain (not the butler) is the cause. If more than one complete chain is present, the possible causes associated with it are considered co-causes.

Although Scriven suggests using the MO method in situations where classical designs cannot be used, he also argues that even in experimental studies some attention should be given to the questions implicit in the MO approach: "What are the means whereby the putative cause is supposed to be bringing about the effect? What are the links in the causal chain between them? Can we look for these links or arrange that they will be easy to look for? Can we use their occurrence to distinguish between the alternative causal hypotheses? How?"

The MO method is still in a theoretical stage and has not been rigorously tested in actual evaluation practice. However, it offers

evaluators a logical alternative to employ in appropriate situations, and in line with Scriven's other contributions to the field of evaluation, could ultimately prove useful.

The Adversary Approach

Also a relative newcomer to the field, the Adversary Approach seems to offer less promise than the MO method, at least according to some who have used it in practice (Popham and Carlson, 1977). First suggested by Guba (1965), the Adversary Model derives its origins from the legal model of advocate/adversary conflict, confrontation and third-party resolution. There are several variations in the actual way it is applied to evaluation, and the reader is urged to consult the several descriptions of the approach available—e.g., Guttentag, 1971; Kourilsky, 1974; Levine, 1974; Owens, 1973; Wolf, 1975; and Wolf, Potter and Baxter, 1976.

Adversarial Evaluation basically involves two separate evaluation teams (or individuals)—one chosen to represent the program in question and gather evidence in its favor; the other to represent a competing program, or in the absence of a competing program, to gather evidence and present a case *against* the program. The results of the two evaluations are presented either in written reports or in a traditional debate setting, with the decision makers rendering the final verdict.

In theory, the Adversary Model seems to be an ideal way in which to be assured of a truly objective evaluation, and its champions extoll this virtue. But the model has several serious defects: it is dependent upon the two competing evaluation teams having equal skills and on the commitment and the fairness of the "judges;" there is no adversary court of appeals to which an improper ruling can be protested; it is expensive; and lastly, most educational decisions are not amenable to the binary choice of a winner/loser or go/no-go adversary contest. Educational decision makers need many more options concerning the future of a program than just those of maintenance or termination. While it is an enticing concept, the ultimate fate of the Adversary Model will have to await more reports of its use.

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