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DIRECTIONS IN CURRICULUM EVALUATION*

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HISTORICAL BACKGROUND

Various writers claim that curriculum workers often have an inadequate appreciation of curriculum history and that future curriculum efforts are likely to improve if they build on an understanding of the past (Bellack, 1969; Franklin, 1977; Tanner, 1982). In this paper, a historical perspective is taken on the relatively recent field of curriculum evaluation in the hope that even a preliminary consideration of some historical aspects of this field might facilitate improved ways of conceptualizing and conducting curriculum evaluation in the future.

HISTORICAL BEGINNINGS: CLASSIC 1960s PAPERS

Although curriculum evaluation is an old practice, it is quite a new field. In fact, Popham (1975) suggests that the field of curriculum evaluation began with the appearance of Scriven's (1967) "The Methodology of Evaluation" and Stake's (1967) "The Countenance of Educational Evaluation." Popham's estimates certainly are consistent with Fraser's (1982) Annotated Bibliography of Curriculum Evaluation Literature in that all 39 books abstracted appeared after 1967, and that only seven of the 174 individual papers abstracted were published prior to 1967.

There is no doubt that the curriculum evaluation literature appearing since 1967 has historical antecendents in important earlier ideas. In particular, Walberg (1970a) acknowledges the seminal influence of Ralph Tyler's thinking on later work (e.g., Tyler, 1949, 1951). While acknowledging the importance of these earlier ideas, the focus here is upon the literature that has appeared since the sudden upsurge in interest in curriculum evaluation in the 1960s.

Several commentators claim that the sudden expansion of the curriculum evaluation field was a response to the need to evaluate the large-scale projects developed as part of the "curriculum reform movement" after the launching of Sputnik in the early 1960s. The complexity of curriculum packages, together

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with the need for formative evaluative information to guide rewriting (Cronbach, 1963), contributed to a recognition that classical approaches to evaluation were too simple for the task and more appropriate for summative evaluation (e.g., Harlem, 1975).

Guba and Lincoln (1981, p. 9) assert that Scriven's (1967) publication is "the single most important paper on evaluation written to date," and Smith (1980) was able to identify 160 articles on evaluation citing Scriven's paper. One important contribution made by Scriven was the introduction of the terminology "formative" and "summative" and the idea that formative evaluation could be just as important as summative evaluation. Another contribution was the notion that, rather than simply accepting stated goals, there is a need to evaluate the instrinsic worth of curricular goals. Scriven's (1967, p. 52) statement that "if goals aren't worth achieving then it is uninteresting how well they are achieved" was strengthened and expanded later when he espoused a goal-free evaluation model in which the evaluator should study all effects, not just those intended by the curriculum developer (Scriven, 1973). These writings helped to legitimize the idea that evaluation can (and even should) be done even in the absence of information about objectives.

Smith (1980) found that Stake's (1967) paper received as many as 85 citations. In his model for evaluation, Stake retained outcomes but also broadened his conception of evaluation to include transactions, antecedents, and contingencies. In fact, major contributions made by Stake (1967) were his attempt to broaden conceptions of evaluation by criticizing evaluations for looking at education "with a microscope rather than with a panoramic viewfinder" (p. 536), and his distinction between description and judgment as the two "basic acts of evaluation" (p. 525).

Cronbach's (1963) paper entitled "Course Improvement Through Evaluation," although published some years prior to the work of Scriven and Stake, is one of the most widely known articles in the field. Cronbach's central theme is that the most important decision served by evaluation is course improvement; this purpose is considered more important than using evaluation for decisions about individuals or administrative regulation. In this classic article, Cronbach also advocates that evaluation should be noncomparative and multidimensional (i.e., it should include a separate measure of each important objective).

Although it is possible to identify a small number of classic papers on evaluation in the .1960s, the dramatic increase in the number of writings on curriculum evaluation in the 1970s and early 1980s makes it unwise to attempt to cover this voluminous literature here. Consequently, in providing an overview of a sample of the existing literature, use is made here of two organizing themes, namely, the distinction between quantitative and qualitative methods of evaluation, and the underlying discipline upon which evaluation models are based.

QUANTITATIVE vs. QUALITATIVE METHODS

Although the terms "quantitative" and "qualitative" may be far from ideal, their usage has become reasonably well established in the literature. For example, there are books entitled Qualitative Evaluation Methods (Patton, 1980) and Qualitative and Quantitative Methods in Evaluation Research (Cook and Reichardt, 1979). The distinction between quantitative and qualitative evaluation methods is described by Reichardt and Cook (1979):

> By quantitative methods, researchers have come to mean the techniques of randomized experiments, quasi-experiments, paper and pencil

> "objective" tests, multivariate statistical analyses, sample surveys, and the like. In contrast, qualitative methods include ethnography, case studies, in-depth interviews, and participant observation. Each of these method-types - i.e., quantitative and qualitative - has acquired a separate constituency of advocates who argue that it is their preferred methods which are best suited to evaluation. (p. 7)

There is no doubt that quantitative methods still have a firm foothold. For example, in the lead issue of the new journal Evaluation Quarterly, Rossi and Wright (1977) assert that:

> There is almost universal agreement among evaluation researchers that the randomized controlled experiment is the ideal model for evaluating ... If there is a Bible for evaluation, the Scriptures have been written by Campbell and Stanley ... (p. 13)

Quantitative evaluation methods have been undergoing continuous improvement and refinement over the years. Some of the more notable publications in this area are Walberg's (1970b) model for research on instruction, Cooley and Lohnes' (1976) book on evaluation research, and a new book in which Abt and Magidson (1980) apply Tukey's techniques of exploratory data analysis and Joreskog and Sorbom's structural equation modeling in a curriculum evaluation study.

In the 1970s, there appeared a sizable number of publications whose major thrust was to argue that the quantitative approach has certain major shortcomings that can be overcome by adopting more qualitative methods to curriculum evaluation. For example, Hamilton (1976) claims that there are several criticisms or doubt about the use of qualitative methods. First, measurement considerations tend to direct attention away from some important aspects of a program toward those that can be more easily measured. Second, the aims of the evaluator and developer sometimes come into conflict when the evaluator attempts to enhance experimental control by discouraging redevelopment in midstream. Third, the classical evaluation approach tends to focus on the concerns of administrators and researchers rather then on the practical questions asked by teachers. Fourth, attention is given to intended outcomes at the neglect of unanticipated consequences. Fifth, the assumption that everyone can agree on aims is untenable.

Similar criticisms of quantitative methods have been advanced by various writers in England (Parlett & Hamilton, 1972; Jenkins, Kemmis, MacDonald, & Verna, 1979), especially in a book aptly entitled Beyond the Numbers Game (Hamilton, Jenkins, King MacDonald & Parlett, 1977). In particular, British workers have advocated quantitative alternatives referred to as illuminative evaluation (Parlett & Dearden, 1977) and the case study approach (MacDonald & Walker, 1975; Norris, 1977; Simons, 1980). Similarly, U.S. writers have criticized quantitative methods and proposed more qualitative alternatives referred to as responsive evaluation (Stake, 1975), naturalistic evaluation (Guba, 1978; Guba & Lincoln, 1981), and the case study approach (L.M. Smith, 1978; Stake & Easley, 1978).

For example, Parlett and Hamilton's (1972) criticism of the quantitative approach includes the following colorful quotation:

> Students - rather like plant crops - are given pre-tests (the seedlings are weighed and measured) and then submitted to different experiences (treatment comditions). Subsequently, after a period of time, their attainment (growth or yield) is measured to indicate the relative efficiency of the methods (fertilizers) used. (p. 4)

In contrast, their proposed qualitative alternative called "illuminative" evaluation is claimed to have the following characteristics:

> The aims of illuminative evaluation are to study the innovative programme: how it operates; how it is influenced by the various school situations in which it is applied; what those directly concerned regard as its advantages and disadvantages; and how students' intellectual tasks and academic experiences are most affected. It attempts to discover and document what it is like to be participating in the scheme, whether as teacher or pupil; and in addition to discern and discuss the innovation's most significant features, recurring concomitants, and critical processes. (p. 9)

The various qualitative approaches proposed for curriculum evaluation have several common threads. First, data collection emphasizes informal observation and informal interviews more than formal tests and questionnaires. Second, there is a greater interest in individual students, teachers and schools rather than in aggregating information and generalizing across wide groups. Third, reports tend to be geared toward non-technical audiences. Some of the salient qualities of qualitative methods are described by Welch (1983):

> At all times, I tried to be as nondisruptive and unobtrusive as possible. My primary data gathering instruments were a notebook and a tape recorder ... The goal of our research was to provide a personal and experiential perspective. We took things as we found them and tried to portray them to others. (p. 98)

It is possible now to reflect on the past, evaluate the contribution made by the literature on qualitative and quantitative approaches to curriculum evaluation, and make tentative suggestions for the future. There is little doubt that the literature on qualitative evaluation has made some positive contributions to the field. In particular, it has clarified some of the genuine problems associated with the quantitative approach, helped in establishing a rightful place for qualitative methods in evaluation, and increased understanding of how to use qualitative methods in evaluation research.

Nevertheless, several key criticisms can be made of some of the literature on qualitative evaluation (see Parsons, 1976; Crittenden, 1978). First, many of the criticisms of quantitative methods are not necessary criticism inherent in the approach *per se* but, rather, criticisms of bad practice within the approach. Second, some criticisms of quantitative methods are naive because they are based on Tyler's earlier conceptions of evaluation (e.g., Tyler, 1949, 1951) rather than upon more recent and sophisticated advancement in quantitative evaluation methods (e.g., Cooley & Lohnes, 1976; Abt & Magidson, 1980). Third, much of the literature on qualitative evaluation has tended to portray quantitative and qualitative methods as mutually exclusive polar extremes that cannot be reconciled. For example, examination of the bibliographies of two new books on evaluation by Simons (1980) and Abt and Magidson (1980) shows that, of the 262 different references contained in the bibliographies of these two books, as many as 260 references are unique to one book or the other, while as few as two references are common to both books (these are Campbell and Stanley's Experimental and Quasi-Experimental Designs for Research and Coleman's Equality of Educational Opportunity). Consequently, this literature has done little to enhance our understanding of the circumstances under which qualitative methods are likely to be more or less useful than quantitative ones and, more importantly, when a combination of qualitative and quantitative methods is likely to be more fruitful than the use of either approach alone.

In their article "Beyond Qualitative Versus Quantitative Methods," Reichardt and Cook (1979) make the following very sensible comments:

> We have seen that the choice of methods should not be determined by allegiance to an arbitrary paradigm. This is both because a paradigm is not inherently linked to a set of methods and because the characteristics of the specific research setting are equally as important as the attributes of a paradigm in choosing a method. We have also seen that a researcher need not adhere blindly to one of the polar-extreme paradigms that have been labeled "qualitative" and "quantitative" but can freely choose a mix of attributes from both paradigms so as to best fit the demands of the research problem at hand. There would seem to be, then, no reason to choose between qualitative and quantitative methods either. Evaluators would be wise to use whatever methods are best suited to their research needs, regardless of the methods' traditional affiliations. If that should call for a combination of qualitative and quantitative methods, so be it. (p. 19)

Similarly, in a recent book from the Stanford Evaluation Consortium, Cronbach and his colleagues advocate that the large majority of evaluations should include both quantitative and qualitative methods at appropriate times and in appropriate amounts. "Those who advocate an evaluation plan devoid of one kind of information or the other carry the burden of justifying such exclusion" (Cronbach et al., 1980, p. 223). Other sources that acknowledge the value of combining both qualitative and quantitative approaches include Jick (1979), Smith and Fraser (1980), and Madey (1982).

UNDERLYING DISCIPLINES

Another common theme or argument in the evaluation literature of the late 1970s and early 1980s is that classical evaluation methods have been based on the methods of the scientist, and that benefits might result from exploring whether the methods used by others (e.g., artists, lawyers, journalists) might be useful in evaluation (N. L. Smith, 1978; Worthen, 1978). Much of the recent work in this area has been based on a project at the Northwest Regional Educational Laboratory and has led to the publication of the book Metaphors for Evaluation (Smith, 1981a). This book, together with Smith (1981b), explores the use in evaluation of methods used in investigative reporting, law, architecure, geography, philosophy, literary and film criticism, and watercolor painting.

One of the most well-known attempts to use another discipline as a "metaphor" for evaluation is Eisner's connoisseurship and criticism approach based on the arts. Eisner's ideas first appeared in the early 1970s (Eisner, 1972) and now are widely available through publication of The Educational Imagination (Eisner, 1979). Connoisseurship in art involves the ability of appreciating the subtle qualities in a work of art, whereas criticism involves the disclosure to the public of the qualities perceived by the connoisseur. Similarly, educational connoisseurship is "the art of appreciating what is educationally significant" (Eisner, 1979, p. ix) and involves the ability to perceive what is subtle and important. Like the wine connoisseur, the educational connoisseur needs perceptual acuity and relevant experience. Whereas connoisseurship is the art of appreciation, criticism is the art of disclosure. That is, criticism is the public side of connoisseurship because it involves "the illumination of something's quality" and the "vivifying" of an educational program in order that audiences are able to see more than they would have without the benefit of criticism. The three major components of educational criticism are a descriptive aspect (involving portrayal in words), an interpretative aspect (involving the meaning of a situation to those involved), and an evaluative aspect (involving appraisal of educational values).

An important contribution of Eisner's (1979) book is its inclusion of concrete examples of educational criticisms written by some of Eisner's postgraduate students from Stanford University. Further clarification of this approach can be obtained from examining the non-discursive, metaphorical language in the following extracts and contrasting them with the style of traditional educational reports:

This classroom is almost a caricature of the society.

> The curriculum is served up like Big Macs. Reading, math, language, even physical and affective education are all precooked, prepackaged, artificially flavored ...
>
> Each day is remarkably like the day before and the day after. The school year seems to have been made with 174 pieces of carbon paper. The same things are done at the same times in the same ways in the same books. Only the pages change.
>
> On some enchanted mornings the contracts take a nap and a different kind of feelings fills the air. On one of these mornings Miss Rogers introduced us to her violin. She began to play it as we sat transfixed, floating from the room through our ears. We drifted to a magic land where sounds change into colors, and the colors are fleecy soft. (pp. 224-230, 244)

Also, during the 1970s, several writers advocated adversary or judicial evaluation methods based on the law as a metaphor (Owens, 1973; Wolf, 1979). In fact, the law offers several established methods (use of expert testimony, cross-examination, weighing of conflicting evidence), which could be useful in evaluation. According to Wolf (1979), the main merit of judicial evaluation is that :

> the law, as a metaphor, offers many important concepts (fact-finding, adverserial proceedings, cross-examination, evidentiary rules and procedures, structured deliberations, etc.) that ... add certain dimensionality lacking in more conventional forms of social injury. In contrast to more "scientific" methodologies, which generally exclude human testimony and judgment ..., the "legal" model places a premium on these forms of evidence. (p. 21)

Furthermore, in the U.S.A., this method has been implemented in a quite elaborate way with two sides (presentation and defense) involved in presenting their cases to a judge and jury, calling witnesses, etc. But this is not essential, and there is no reason why aspects of the legal model could not be incorporated into an evaluation without the need for such elaborate procedures.

Of course, there are aspects of the legal metaphor that are not ideally suited to educational evaluation. For example, the pageantry of the courtroom seems inappropriate. The indictment mentality in which the curriculum stands charged of some "crime" can be a problem. Having a prosecution and defense can lead to excessive polarization and shift attention away from points of agreement and middle ground. The jury may be persuaded more by the eloquence and personality of case presenters than by the evidence itself. Popham and Carlson's (1977) suggested solution to this dilemma is to involve both teams in arguing both sides of the case.

Guba (1979, 1981) proposes investigative reporting as a source of evaluation methodology. Guba argues that investigative journalism has sufficient similarities with education to make it a potentially useful

metaphor, and that there are also sufficient differences to provide new perspectives and insights for evaluation. For example, there are legal parallels in that evaluators may be required to defend their data in cases where it presents an unflattering or damaging picture. Ethical parallels could include situations where subjects withhold information or deceive, or where the evaluator might be tempted to breach ethical principles in order to obtain needed information. An operational parallel could be the key interview, which is used in investigative journalism to get a subject's response to allegations or to uncover new information available only from this knowledgeable source. In evaluation, this technique could be useful with uncooperative informants or for testing a draft report with persons it most directly affects. Another operational parallel is reporting. Because journalists recognize that a publishable story requires not only the facts, but also good writing and awareness of what audiences want, the evaluator might be well advised to learn how investigative reporters organize their reporting.

The work on metaphors for evaluation is still evolving, and opinions about the merit of this work are divided. What is needed now is for curriculum evaluators to try out some of these new approaches and to report their experiences so that it can be better understood whether and in what circumstances these new approaches will prove useful in curriculum evaluation practice.

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