Book Reviews

Social Experiments: Method for Design and Evaluation, Leonard Saxe, and Michelle Fine, with introduction by Donald T. Campbell. Beverly Hills, California, Sage Publications, 1981, 266 pp.

Applying social science to the definition and resolution of social policy issues has a modestly long history.[1] Using social science methods for the evaluation of government programs is of somewhat more recent vintage.[2] Many texts, handbooks, annuals, journals, and other publications have appeared in the last 10 to 20 years on the methods of and problems encountered in program evaluation.[2-7]

Schools of program evaluation methodology have emerged. For example, Guttentag[8] has emphasized decision theory approaches; Patton[9] has emphasized qualitative methods; Scriven[10] has emphasized comprehensive frameworks for evaluation of expected and unexpected outcomes. Campbell has been the most reknown proponent of "true" experiments as the primary method for program evaluation. Campbell,[11,12] his students,[13,14] and admirers[15,16] have produced an enormous literature on this methodological approach to program evaluation.

Saxe and Fine have written what might be considered a manifesto and a primer of experimental concepts as applied to social program evaluation. It is a manifesto in that the authors take a simplified view of the social policy-making process and exalt the experimental method as the only true approach to knowledge or to policy-relevant information generation. It is a primer in that the basic precepts of the experimental method are applied to the evaluation of social programs though careful exposition and the use of brief examples.

Although there is little new in this book for evaluation professionals, it is valuable for students and policy professionals without an evaluation background. This book provides a coherent position on the value of experimental techniques and explicates experimental methods in program evaluation. The first chapter is a polemic on the applicability of experimental techniques. Chapters 2 through 5 apply the basic methods of social experimentation to social program evaluation. Chapters 6 through 9 review the problems in the implementation of the experimental method through an identification of threats to experimental validity; Chapter 10 returns to a polemical consideration of experimental methods in contrast to those of other methodologic schools of evaluation. Some training in research design, measurement, and statistical analysis would enable the reader to more thoroughly understand and appreciate the arguments made.

To the extent that the book is designed to be a manifesto and a primer for students and non-science-trained policy makers, it cannot be extensively faulted. The authors do emphasize the evaluation of national rather than local programs, but this simply reflects their own experience. The limitations of the experimental method they propose, however, need to be recognized within a broader understanding of program evaluation.

The first limitation relates to the authors' statement of the complexities of the social policy-making or social decision-making process. An implied if not explicit assumption is that a set of conceptually coherent outcomes can be stated for all proposed social programs. In our pluralistic society, however, many groups have competing goals and values, differing levels of social power, and differing frameworks for targeting and justifying the use of public funds. Any piece of legislation and the resulting social program most often have goals that reflect an

Health Education Quarterly, Vol. 13(1):93–95(Spring 1986)

0195-8402/86/010093-03$04.00

amalgam of these various factors. Furthermore, legislators not only want to achieve important social ends but also want to bring money back to their various constituencies and to silence a variety of opponents. Attempting to sift through these various factors to identify a set of theoretically coherent outcomes is often a thankless if not impossible job. Similar kinds of competing interests exist in the implementation and evaluation of these programs at the local agency level.[17] An important next step in the maturing of program evaluation must be the development of a sophisticated understanding of the policy development and implementation processes and how evaluators might most effectively interact with this system.

A second limitation is that the authors confuse their experimental method with a more general social problem-solving process. The authors can be inferred to espouse a social problem-solving process that includes the following steps: problem definition, alternative solution generation, solution formulation, solution implementation with evaluation, problem redefinition and solution reformulation based on the evaluation, and continued program monitoring. The only method of evaluation the authors allow is the experimental method. Many other social science methods, however, can make contributions to each of the stages in this problem-solving process, including evaluation. For example, depending on the particular problem (e.g., teenage pregnancy), the work of a broad variety of behavioral and social scientists can contribute analyses from surveys, laboratory studies, and participant observation to define the problem and to generate a broad variety of alternatives for potentially redressing the problem. Although social and behavioral scientists can contribute to the formulation of a solution, a broader political process must take place within and between the various constituencies to potentially reach a consensus. Experts in organizational and management science should contribute to the implementation of the solution, and many kinds of evaluation can take place.

This book's exclusive emphasis on experimentation as the sole path to social problem knowledge leads to a variety of questions. Can no innovation be implemented unless it is submitted to rigorous experimental evaluation? Do small innovations require thorough, sophisticated experimental evaluation even if these are costly? What level of cost or level of controversy of an innovation necessitates an experimental evaluation? What about enormously complex innovations? For example, community mental health centers provide services for many types of problems and attempt to vary those services to meet the specific needs of local groups. How does an evaluator systematically vary such a complex program, ensuring comparability of methods, training, enthusiasm, etc. from site to site? It would appear that something like the national community mental health center program was a system implemented to facilitate service delivery. The individual programs (e.g., alcoholism counseling) of the CMHC may be submitted to experimental evaluation, but the system itself must be held to some standards of financial and managerial accountability and service delivery efficiency and effectiveness.

Should all programs be held accountable to experimental evaluation immediately? For example, it often takes a year or longer for a management structure to be developed, staff to be hired and trained, clients to be identified and informed of the service, and modifications to be carefully made to make the services more responsive to the needs of local clients. During this development period, the management and staff would benefit from feedback from clients on their perceptions of need and of the services received to facilitate making the services responsive. It seems unrealistic to apply a rigorous experimental design during this formation period, but the authors make no provision for the formative evaluation procedures so useful in program refinement.

The authors would presumably argue that programs not passing some experimental evaluation should be terminated. An important question is what levels of outcome or change are necessary to achieve continued support? Are programs that pass an initial experimental evaluation forever free of further evaluation? Probably not. Clients' needs change, agency staff motivation wanes, fashions in therapy evolve, and there are wild swings in national political philosophy. Are programs condemned to continuous and costly experimental tests of their services? Are other methods of program evaluation acceptable to the authors? Could these other methods be more appropriate in light of the changing standards by which the programs will be evaluated?

At several points in the book, and particularly in the last chapter, the authors recognize some limitations of the experimental method. Few solutions are proposed for these problems. For example, if a program is not implemented as designed, the authors recognize that this is a problem of program construct validity. No mention is made, however, of a variety of quality control procedures that could be implemented to minimize this problem. Of course, the book would be immense if it were going to provide prescriptions and proscriptions for all the problems identified.

Even a brief reading of this text would reveal how enormously complex a social problem-solving process can be. It is little wonder, therefore, that the authors have attempted to simplify the process and present only one set of tools for dealing with the problems. It is clear, however, that experimental methods are more appropriate for evaluating single-component interventions (e.g., police-patrolling policies) as opposed to complex service delivery systems (e.g., community mental health centers).

Nothing in this volume specifically discusses health education programs and their evaluation. Health educators considering an experimental evaluation of a particular program will be well advised to review this book to ensure that their evaluation applies the method appropriately and to anticipate (and subsequently correct for) the many threats to validity reviewed by the authors. The general analysis of social policy and the formulation of the experimental ideology are applicable to health education needs and programs. This book does a good job of making a strong case for the use of the experimental method. It is one of a variety of important social science tools for evaluating programs, but not the only one.

Tom Baranowski, PhD
Departments of Preventive Medicine and Community Health and Pediatrics
The University of Texas Medical Branch
Galveston, TX 77550

References

1. Weiss CH: *Using Social Research in Public Policy Making*. Lexington, MA, Lexington Books, 1977.
2. Suchman E: *Evaluation Research*. New York, Russell Sage Foundatin, 1967.
3. *Evaluation and Program Planning*.
4. *Evaluation Review*.
5. *New Directions for Program Evaluation*.
6. Cook TD, Del Rosario ML, Hennigan KM, et al (eds): *Evaluation Studies Review Annual*. Beverly Hills, CA, Sage, 1978.
7. Guttentag M, Streuening EL (eds): *Handbook of Evaluation Research* (vols 1, 2). Beverly Hills, Sage, 1975.
8. Guttentag M: Evaluation and society. *Personality Soc Psycho Bull* 3:31–40, 1977.
9. Patton MQ: *Qualitative evaluation methods*. Beverly Hills, Sage, 1980.
10. Scriven M: The methodology of evaluation, in: *Perspectives on Curriculum Evaluation* Chicago, Rand McNally, 1967.
11. Campbell DT: Reforms as experiments. *Am Psychol* 24:409–429, 1969.
12. Campbell DT: The social scientist as methodological servant of the experimenting society. *Policy Stud* 2:72–75, 1973.
13. Cook TD, Campbell DT: *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Chicago, Rand McNally, 1979.
14. Cook TD, Reichardt CS (eds): *Qualitative and Quantitative Methods in Evaluation Research*. Beverly Hills, Sage, 1971.
15. Riecken HW, Boruch RF (eds): *Social Experimentation: A Method for Planning and Evaluating Social Intervention*. New York, Academic Press, 1974.
16. Bennet CA, Lumsdaine AA (eds): *Evaluation and Experiment: Some Critical Issues in Assessing Social Programs*. New York, Academic Press, 1975.
17. Windsor RA, Baranowski T, Clark NM, et al: *Evaluation of Health Promotion and Education Programs*. Palo Alto, Mayfield Press 1984, Ch 2.