

INSTRUCTIONAL PROGRAM EVALUATION:
SOME CONSIDERATIONS¹

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Editor's comment. Dr. Hall is Director of Research, Development, and Evaluation, one arm of the Instructional Division of the Dade County, Florida, school system. Instructional program evaluation is one of the three functions of the unit. The other two are research and development.

The Research, Development, and Evaluation unit provides to each program which it services ongoing feedback for the purpose of improvement. It may conduct evaluation studies on pilot programs, demonstration prototypes, or simulations prior to the full scale launching of new programs, thus contributing to their refinement while they are in the formative stage.

Dr. Hall's unit is at least semi-independent. Program operation is the responsibility of the instructional personnel. The Evaluation unit furnishes the instructional personnel information about the effectiveness of their instruction. The responsibility for further evaluation and feedback rests with Dr. Hall's unit. While other schools make quite different administrative provisions for the evaluation of instruction, this pattern has the merit of fixing responsibility for quality evaluation and bringing together a staff competent to do the job.

The following paper represents Dr. Hall's experience in operating such an evaluation unit in one of our large school systems.

The purpose of this paper is to stimulate thinking about a difficult and complex problem. The ideas presented here are those of a public school person who is devoting a great deal of attention to the questions associated with evaluating instructional programs. The Elementary and Secondary Education Act of 1965 requires certain kinds of formal evaluations. This has come at a time of increasing interest by our school systems in developing better procedures for getting good information about instructional

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programs. Presented here are six considerations in approaching this task.

The first consideration is getting a definition of the term, "evaluation." This is basic, essential, and difficult. Instructional program evaluation can be defined as the research-like process that we use to objectify reality; that we use to gain information to assist in making decisions to retain or change the status quo of instruction. Evaluation is an effort to provide more rational bases for decision-making. Evaluation can be viewed as a function of decision-making which ranges from most informal and most subjective, to most formal and most objective. Evaluation in public school systems is a service to those who make decisions about instruction, to those who seek to improve instruction.

The second consideration is getting an understanding of the reasons for having formal evaluation. A primary reason for conducting formal evaluation in a school system is to know with more confidence the effect on learners of particular combinations of resources and methods that have been brought together in an instructional program. A second major reason is to provide a constant feedback of information to program staff needed for the continuous improvement of an instructional program. A third reason is to reveal possible undesirable outcomes of a program. This is something that requires alertness and imagination but which is often overlooked. Formal evaluation can spotlight the successes in an instructional program and help planners avoid mistakes in future programs.

Formal evaluation is needed because most policy-level decision-makers do not have the opportunity to make direct observations of instructional programs. Formal evaluation is needed to describe the variabilities and complex interactions that take place in the total school program of instruction in a school system. Intervention programs such as those provided under ESEA Title I have an effect on all of the school programs, and it cannot be assumed that these have an over-all positive effect. What is needed is continuous system-wide evaluation of all of the instructional programs so that we can identify the effects of interventions. Finally, formal evaluation of instructional programs is needed because modern administrative practice requires objective product and process information for sound decisions relative to deployment of limited resources, supervision of instruction, and the general problems of quality control. In this is included some kind of cost-effectiveness information.

The third consideration in conducting formal evaluations of instructional programs is knowing who the users of evaluation information are or will be. A formal hierarchy

of decision-makers runs from federal authority through state authority to local authority represented by boards of public instruction, through school system central administration, school center administration, to teachers and learners. This is the legally defined hierarchy of decision-makers. These different kinds of decision-makers make different demands on evaluators. State departments of education will ask for one kind of information, superintendents and school boards want other kinds of information, supervisors and principals want other kinds of information, teachers need more immediate kinds of data on pupils and the effects of different methods, and learners need information about their progress and abilities. No set of requests from any of these decision-makers constitutes a comprehensive evaluation design. The responsibility to develop a comprehensive design for evaluation must be placed with independent evaluators.

Evaluation information provided for decision-makers is used to manipulate the independent variables of an instructional program consisting of instructional goals, time, facilities, materials, teachers, and learners. And you will note that teachers and learners are manipulators of instructional program variables and also are manipulated as variables by other decision-makers.

The fourth consideration is the question of who should conduct formal evaluations. Evaluators must be objective, detached, and non-directive. Formal evaluations may be conducted by an outside agency which the school system might employ for this purpose, or may be provided by an inside, autonomous evaluation unit, or, as is generally the situation now, data is provided by program staff, the people who actually work in the instructional programs. This last approach is less than desirable--sometimes even destructive in the process of improving instruction. Public school people with the necessary skills and wisdom working independently of instructional programs will probably do the best job of evaluation. There have been difficulties with outside agencies providing evaluations, and there are the traditional difficulties with program staff evaluating their own work.

The fifth consideration is obtaining the necessary support for an effective program of evaluation. In order to conduct an effective evaluation, a congenial setting is required--a state of mind and attitude on the part of professional people which permits desirable conditions for data gathering. This congenial setting requires a climate or an administrative philosophy committed to the need for evaluation. Obtaining this climate is often difficult as many decision-makers and many school system administrators are reluctant to have formal evaluations of instructional programs.

A flexible budget is needed because in these early years of developing formal evaluation we will be constantly modifying our approaches, constantly improving ourselves. We need flexibility of financial support. We need in this budget, money for statistical services, computer time, consultant help, materials, and equipment. We need to recruit qualified personnel. We need money to train personnel because very few people have been prepared for this kind of job. Universities in preparing researchers do not train people to conduct program evaluation with this immense, complex jungle of variables and effects. We need office space and work space.

We need access to the decision-makers. It is possible that school systems will establish evaluation units, isolate them, and have them write nice reports to circulate to other evaluators and state department officials, but to be of full value, evaluators must have access to the decision-makers.

Limits on the way we use the resources that are allocated for this formal evaluation should be set. When people learn about the benefits and the kinds of information that formal evaluation can generate, there is a tendency for everyone to make demands on evaluation teams. Resources must not be spread so thin in trying to help everyone that in the end no one is helped.

The last consideration and probably the most important, is the clarification of the process of formal evaluation. Formal evaluation can be viewed as a form of scientific experiment, which requires sophisticated design, techniques, statistics, and well trained teams of investigators. If we don't use these scientific techniques, the results which we obtain will be meaningless, with the possibility of bad information being destructive in the end. Because formal evaluation is difficult, we should not abandon the effort, and if we cannot conduct the sophisticated investigations that we want in the beginning, we should start by developing the experience, the know-how, the resources, and the capacity to investigate, and then move forward.

This process of evaluation has been described as having several steps, the first one being assistance to program planners. This may or may not be a legitimate function for an evaluator, but there are certain things that evaluation personnel can provide to planning personnel. Evaluators can provide related research findings, they can provide previous evaluation data, they can provide background data on pupil needs and characteristics, and they can help program planners in clarifying their objectives and translating

objectives into some kind of measurable terms. Evaluators can assist program planners in modifying objectives, or expressing new objectives if the program changes. Another important service that evaluators can provide for program planners is in insisting that the design of an instructional program and the selection of objectives not be based on availability of instruments. This is a compromise that we should never make. We should plan the program on the basis of what the students need to learn, and then let the evaluator find instruments or develop instruments necessary to measure this.

Evaluation personnel must work at breaking down some of the walls that might exist between evaluators and program staff and work at creating mutual respect and faith. The service aspect of formal evaluation must be emphasized. Fear and suspicion that program staff might have will be removed when more formal evaluation is introduced into a school system. The important services of providing constant feedback to program personnel so that they can make the necessary changes to improve their instructional program will do much to create mutual respect.

Clarifying program objectives is essential for the success of any form of evaluation and will provide for more successful implementation of instructional programs. The evaluation personnel must force the program staff to the wall if necessary in order to get them to admit to what it is that they are trying to do. It can be painful but it must be done. Clarification of objectives is necessary for evaluation design and also necessary to help the program staff avoid being diverted from their original purposes.

The heart of the evaluation process is design and instrumentation. There are difficult questions in this area and we cannot have sophisticated evaluation until these difficult questions are answered. One suggestion for creating a framework or approach to looking at a formal evaluation is breaking down an instructional program into three aspects: the program antecedents, the transactions, and the outcomes. The program plan becomes the intended antecedents, the intended transactions or treatments, and the intended outcomes. The observing of outcomes must include alertness to possible side effects and possible negative effects. A distinction between process evaluation and product evaluation can be applied here, product evaluation being the measure or observation of outcomes, process evaluation being the observation of the treatments or transactions of the program.

An evaluation design must be comprehensive and must prescribe explicitly the conditions and work required for getting the desired information. It must include the methods

for gathering data. It must include a time schedule, sampling methods, and must include the important consideration of instruments, whether we use established instruments or develop instruments.

Other steps in the process include the gathering of data and the processing of data. The best hope which we have in this area is the creation of data banks with computer systems to do the necessary storage, retrieval, and processing of these huge quantities of data that are present in any comprehensive program.

Data analysis and reporting are the final and vital steps in the process. Evaluators have responsibility for producing reports. Evaluators and program staff can cooperatively develop the reports necessary for the different kinds of decision-makers. Certain readers of evaluation reports can understand a complete technical report; others need brief summaries in simple language. Decisions in school systems are made on a calendar basis and if evaluators are to influence decision-makers with good information they must meet deadlines.

A further step in the process has been suggested: Evaluators should recommend to decision-makers and to program planners what the future of programs ought to look like, including suggestions for modifications, changes, and the creation of new programs. Whether this is a legitimate function of an evaluation unit is open to debate. Evaluators do have an opportunity to view programs at close range. On the other hand, evaluators may tend to influence planners to create programs that are more easily evaluated--the great evaluation sin.

One last comment. Considering the present state of the art of program evaluation, to evaluate at all involves compromises of the ideals we have for formal evaluation. In spite of this limitation every opportunity, every device, every piece of information must be exploited to get evidence of how programs are functioning and the effect they are having on learners.