yes, a change agent can evaluate!

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"To err is human." To fear evaluation of one's errors is also human. In this respect, educators and consultants are altogether too human. Frequently, the admonishment, "you can't evaluate my job" is little more than an indication of the fear of what an evaluation might reveal. Yet, there's more than a grain of truth in this claim.

Evaluation of any educational activity is a difficult process. This is especially true in the case of the individualized problem-solving, quasi-educational situation of the change agent. The bulk of the literature methodology is geared toward the typical classroom. But, this doesn't mean that concepts and techniques of educational evaluation are useless in this situation . . . they *are* valid. The problem is translating them into more meaningful terms and restructuring them into more useful forms.

Differences and Difficulties

Education is often defined as causing a change in behavior. While this definition is really too broad and all-inclusive, it allows us to view many change agents as educators. However, a basic difference exists between the "change agent" and the "instructional educator." The former usually teaches on an individual basis and the latter largely on a group or classroom basis.

Change agent education is generally more personalized and intensified. Learning experiences are designed for specific learners in specific situations. In cases where intensive help is given, several change agents may work with the same client on interrelated and inseparable problems.

Other Variables

In these cases, the learner or the client becomes the focal point for program evaluation. The individual change agent frequently can't be held solely responsible for the success or failure of a client or program. The responsibility must often be shared with others.

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Suppose a program to boost the sales of a small manufacturer has failed. The cause of this failure could be a poor marketing program based on the advice of the marketing consultant. On the other hand, it could have been failure on the part of the financial consultant to ensure that the firm had adequate working capital to meet the needs caused by a highly successful marketing program. Or, perhaps failure was brought about by the production consultant's inability to properly advise or educate the firm's production department. In addition, outside variables such as actions of competitors, material shortages, shifts in the market place, introduction of a new product or firm, or government intervention could have been responsible.

In short, the behavior of the learner or the results of the program may prove to be incomplete or incorrect evidence on which to base an evaluation.

Time Reference   Another difficulty in evaluation is the time reference. At which point in time is a program to be evaluated and judged? For example, a program was implemented in northern Wisconsin to provide jobs for Indian women on a reservation. Twenty-two jobs were created. A year later, there were none. The manufacturer closed down the operation. Was the project a success or a failure? Was the short-lived nature of the project caused by the lack of sound advice by the consultant, or was it caused by variables beyond his control?

Properly used, evaluation can be—and should be—more than a tool for measuring performance and establishing value.

What Constitutes Failure?   An additional, but by no means final, difficulty in change agent evaluation is determining when failure to achieve the desired objective or behavior represents a program failure.

For example, several years ago, the only manufacturer—and main source of employment—in a small Wisconsin town was forced to close its doors. A consultant spent several months trying to help reopen the plant. He failed. He knew before he implemented his program that the chances for success were small. However, the seriousness of the situation and the economic impact on the community justified commitment of resources despite the high risk. How does one evaluate this program?

The "golden age" of education has become slightly tarnished. Taxpayers and businessmen alike are no longer willing to spend immense sums of money for school training programs or consulting services. This isn't to imply that education is entering the "dark ages" . . . it simply means that people and institutions want to know what and how much they're getting for their money.

The change agent can't escape the need for the responsibility for some form of formal evaluation. Although no program is perfect, without some planned evaluation, maximum efficiency and effectiveness are virtually impossible.

Establishing Objectives

The process of evaluation begins with the first stages in program development. For objectives to be stated at any level, the change agent (programmer) must first establish "need." Tyler defines need as, "the difference between what is and what should be."[2] In addition to defining overall goals (or needs), the organization's objectives must be established at clientele, project, and individual change agent levels. In each case, the process is the same.

Since objectives don't occur by accident, and aren't permanent, a standard and formal procedure to establish objectives (and the priority between objectives) is needed. This procedure is essential if there's to be the continuity, sequence, and integration of effective organization.[3]

Determining What Is

The first step in determining "what is" at the agency level can often be done by analyzing published economic data—population, average family income, unemployment, type and size of farms, and the average weekly manufacturing wage. These same sources can also provide useful outlines for determining what should be.

Published information at the clientele or program levels is often nonexistent. So, the client is usually the data source. This information should be gathered early in the agency-client relationship and updated annually or semi-annually. The current client situation can be expressed many ways and is subject to analytical bias from a particular viewpoint. Therefore an audit must be made based on previously determined and agreed on criteria. Criteria between areas of specialization will vary, and the consultant serving that area must assume major responsibility for its selection.

Determining What Should Be

Determining what should be is a responsibility shared by the change agent and the client. Client participation is desirable for several reasons. First, it helps the client by improving his skill in establishing his own objectives. Second, it tends to legitimize a program enabling the change agent to gain the client's acceptance. Third, it puts the change agent and the client in a better position to establish objectives, since the client can usually best determine his own destinations and the change agent is able to provide the knowledge of how to arrive at it.

First Stage— Goals and Objectives

Evaluation is sometimes defined as ". . . the provision of information through formal means, such as criteria, measurement, and statistics to serve as rational basis for making judgment

in decision situations."[4] This is called context, pre-planning, or program determination evaluation. Whatever the title, the purpose of evaluation at this stage is to help establish goals and objectives.

Second Stage— Priorities

The second stage in evaluation is to establish priorities. Once objectives have been determined, the agency's available resources have to be allocated among these objectives. Therefore, it's essential the change agent evaluate his capabilities and those of other agencies available to him.

Given the objectives of the identified projects (clients) and the resources available, the change agent can now establish priorities and design a program to reach these objectives. According to Stufflebeam:

> . . . alternative designs are assessed in terms of their resource time and budget requirements; their potential procedural barriers; the consequences of not overcoming these barriers; the possibilities and costs of overcoming them; relevance of the designs to program objectives; and overall potential of the design to meet program goals.[5]

This procedure assumes that programs to be conducted during the planning period are known in advance. However, this may not be the case. To the extent that a program is characterized by change or fluctuations, the overall program must be highly flexible. An unexpected crisis, such as a plant closing or crop failure can cause an overnight shift in priorities or program direction. The impact of the energy crisis on priorities and activities of many change agents during the winter of 1973-74 is a good example.

Two strategies can be used to deal with these problems. One is to recognize that a portion of the resources allocated to a planning period will be used in programs not yet identified. The other is to fully program with built-in flexibility for changing priorities.

At this stage, program cost in staff time and financial resources must be projected. In addition, program impact— both negative and positive—should be estimated and its relative merits established. While the procedures available at this stage may vary, they should be formal and systematic and reviewed on a regular basis.

Third Stage— Feedback

Evaluation during a program plays a vital role in maximizing outcome. Often referred to as the process or implementation stage, evaluation at this point should provide the feedback necessary to monitor ongoing projects. Evaluation at this stage is especially critical in programs subject to change or shifts in emphasis.

Problem areas are frequently interrelated and sensitive to changes in other areas. In many cases, the solution of a

problem in one area may precipitate a problem in another. For example, a program designed to boost the sagging sales of a firm might cause a shortage of working capital or a production crisis. Thus, it's essential that programs be monitored and communications with other programming-related areas be maintained. Unless this stage is characterized by cooperation and communication on both an inter- and intra-agency basis, the results of the program or project are likely to suffer.

Final Stage— Summary

The final stage in the evaluation process is sometimes called "summary" or "wrap-up" evaluation . . . and is often mistaken for the total process. This can be a fatal mistake. Unless proper attention is devoted to evaluation during the earlier stages, evaluation at this point may become a numbers game.

Final evaluation determines the effectiveness and efficiency of the program. Effectiveness asks: "What were the results of the program?" and "Did it meet its objectives?" This is quite a different issue from efficiency, which asks: "Was it worth it?" and involves a comparison of the inputs and outputs of the program. At this point, the program's "value" is established.

Role of Evaluation

Establishing Value

To establish value implies that a standard of measurement or criterion exists.[6] A criterion may be a base, ideal, or a common standard. It may also be either positive or normative. I'll say more about criteria later. At this stage, it's enough to say that for the evaluation process to be complete, the results of the programs must be compared to or evaluated against something else.

Unless some time and effort is devoted to collecting evidence, no real evaluation can take place and value can't be established. When this happens, the resources allocated to the particular social, economic, and environmental change are used ineffectively and inefficiently. Therefore, no change agent can avoid the responsibility for evaluation.

At any level below the agency or total staff level, input information is essential to value determination. At the agency level, evaluation can be conducted on output alone, since inputs can be considered pre-determined. However, individual staff members can't be evaluated, nor can the efficiency of any program be, unless adequate evidence of input exists. Therefore, adequate records of input must be kept. These records or methods of gathering evidence should be uniform and should make it easy to translate diverse inputs into a common base.

Improving Performance

Up to this point, the emphasis has been on the *value* in evaluation. Evaluation has a second, and in many ways, a more important role . . . helping the change agent improve his performance and program output. In this capacity, two dimensions of evaluation serve as useful media for communication between staff members. Input evidence communicates what others have done or are doing with each client. Output evidence communicates

what has been achieved. Evaluation can also be used to provide direction at all levels of program development and at any stage during the evaluation process. In this sense, program improvement is a major benefit of evaluation.

If evaluation is to be a useful tool of the change agent, he'll have to borrow concepts and procedures from educational evaluation and adopt them to his needs.

Establishing Criteria

A major problem of change agent evaluation is the development of adequate criteria and evidence. A criterion is:

> . . . a standard for use in judging; a rule or test by which anything is tried in forming a correct judgment respecting it; employes a measure or test of a thing's quality.[7]

Evidence may be expressed in the behavior of the learner, or it may be inferred from the indirect. For example, accepting a suggested crop rotation method is direct evidence of behavioral change. An increase in crop yield is indirect evidence of a program's success. The latter is more subjective and judgmental.

Criteria can be divided into two elements. A program must be judged both in terms of its appropriateness and its effectiveness. A criterion based on how successful a community development specialist is in attracting new industry is an example of the latter type of criteria. It's quite a different question from the first . . . perhaps he should be discouraging industrial development and concentrating on social environmental or quality-of-life concerns instead.

Gathering Evidence

Like any other educator, the change agent must gather evidence to evaluate the appropriateness, the effectiveness, and the efficiency of his programs. Unlike other educators, he frequently finds standardized questionnaires, random sampling, or statistical analysis of little value in evidence collection and analysis. A large number of individual programs and a small number of clients limit the usefulness of these techniques. Therefore, the approach to evidence collection should be standardized and built into the program. Any project or program worth doing is worthy of some form of evaluation, be it ever so informal.

Much of the pain, agony, and expense can be removed from evidence collection if it's approached in a planned, formal manner.

Input evidence is far easier to collect and interpret than output evidence. It can be collected internally and on a routine basis.

Dollar/Time Concept

At the present time, there's no more easily accepted and understood unit of measurement than the dollar/time concept. When the procedure is systematized, the

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effort involved can be as little as that needed to fill out a daily or weekly time analysis report. The unit of time required can vary from an hour or less to days.

One of the major benefits of this dollar/time approach to input evidence collection is standardization and flexibility. Analysis can readily be made on a variety of levels—the program, client, individual change agent, or agency.

As indicated earlier, input and output evidence exist, and both are useful in determining the appropriateness of a program, its effectiveness, and its efficiency.

Input Evidence

Input evidence in the first sense is essential to program validation. This isn't program justification . . . validation implies that the consultant is faced with a number of feasible approaches to a problem among which he must choose. Second, input evidence is required for the agent to determine his functioning efficiency. Unless the agent knows, or can reasonably estimate, the resources devoted to a client or program, he can't evaluate efficiency.

Output Evidence

Output evidence or evidence of program results focuses on the client and the manifestations of program success or failure. This is essential to any stage, type, or form of evaluation.

Output evidence can be gathered and analyzed on the same basis or levels as input evidence. However, it's much more difficult and time-consuming to collect. Determining impact can also be highly judgmental. The presence of many internal and external variables and the nature of the agent's educational process compounds the difficulty.

Data collection may be done each day. As already noted, other variables reduce the degree to which direct evidence of impact and results can be gathered and increase the role of judgment. As the number of variables or possible explanations for a phenomenon expand, the need for judgment increases.

Generally, the need for judgment also increases as one moves up the levels of evaluation. For example, it's one thing to determine the impact of a change in production flow, and yet quite another to evaluate the impact that a center for economical development has had on the economy.

Regardless of the level, output evaluation analysis must be made in two ways, both of which require a great deal of judgment on the evaluator's part. Impact must be determined on the basis of what has happened and, second, on the basis of what hasn't happened. The urban youth agent or social worker who's successful in stopping gang wars is an example of the former, while the agent who prevents them from occurring is an example of the latter.

Summary

Evaluation is seldom used by the change agent-educator. When it's used, it's frequently misused. Often evaluation isn't

used properly because the process isn't understood and/or the change agent fails to adopt the process to his unique situation. One of the major reasons for this failure is the lack of evaluation literature written from the change agent's viewpoint. Little effort has been made to translate for the change agent the rather substantial body of knowledge on the subject developed for the traditional educator. If evaluation is to be a useful tool of the change agent, he'll have to borrow concepts and procedures from educational evaluation and adopt them to his needs.

Evaluation doesn't have to be an expensive, time-consuming or disagreeable task that concentrates on just the discovery of mistakes and program failures. Sure, evaluation takes a special effort. However, this effort can be held to a minimum when a formal, systematic process is built into the change agent's method of operation.

Properly used, evaluation can be—and should be—more than a tool for measuring performance and establishing value. As Bruner put it, "Evaluation is best looked at as a form of educational intelligence for the guidance of curriculum instruction and pedagogy."[8] For this reason alone, evaluation should become a major tool of the change agent in improving his own effectiveness and efficiency, and maximizing his contributions to his clientele and to society.

Footnotes

1. Morris L. Bigge, *Learning Theories for Teachers* (New York: Harper and Row, 1964), p. 1.
2. Ralph Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: The University of Chicago Press, 1969), p. 6.
3. *Ibid.*, pp. 84-85.
4. Daniel Stufflebeam, "Toward a Science of Educational Evaluation," *Educational Technology*, VIII (July 30, 1968), 6.
5. *Ibid.*, p. 17.
6. David G. Ryans, "Notes on the Criterion Problem in Research, with Special Reference to the Study of Teacher Characteristics," *Journal of Genetic Psychology*, XLI (September, 1957), 34.
7. Sara M. Steele, "Criteria—Crucial and Critical," in *Evidence and Evaluation*, Volume I (Madison: University of Wisconsin, 1968), p. 1.
8. Robert E. Stake, "The Countenance of Education Evaluation," *Teacher's College Record*, VI (April, 1967), 27.