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ABSTRACT

A model is presented, drawn from the fields of both educational evaluation and business management, specifying the necessary processes for evaluating an eduational organization. The model is concerned with determining the needs of the community and judging the results of the organization in terms of those needs. It looks at the organization in terms of its ability to generate new solutions and to keep that process going. Finally, it defines the organization and its processes primarily in terms of the organization's people, their knowledges, and interrelationships. (RC)

EDUCATIONAL ORGANIZATION EVALUATION MODEL

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EVALUATION MODEL

With the increasing number of sophisticated educational evaluation models available, any new model should be justified before being developed and certainly before its presentation. Since the object of this paper is to present just such a new model, its first step should be to establish the need for the model. The major thrust of model building in educational evaluation has been toward general models. Certainly those of Scriven (1967), Stake (1967), Provus (1971), Stufflebeam, et al. (1971) and Hammond (1967) lie at this level. Considerable attention has been paid to the evaluation of educational products. Grobman (1968) has presented an account of the procedures used in the BSCS project. Scriven has recently proposed a comprehensive product evaluation profile. Of the few evaluations published, most seem to be of educational products if one defines that broadly to include course work. Of the more specific evaluation activities, evaluation of students has received considerable attention, perhaps most comprehensively by Bloom, et al. (1971). Although receiving less attention, evaluation of faculty has also received considerable attention and an extensive literature on that subject exists. (Miller, 1972)

Between the general models of the evaluation process and the specific models and methodologies for evaluating people, products and processes, there seems to be a gap. Specifically, this gap lies at the level of the educational organization. The general

models do not define for an organization the specific areas that it should evaluate. At the same time, the specific procedures for evaluation of students, faculty, products, etc. tell how to evaluate but not when or to what end. There are two existing responses to the problem of evaluation of educational organizations. The first is the accreditation/self-study model. This model is widely used and has a number of advantages. However, as Worthen and Sanders (1973) have pointed out, the accreditation model's objectivity and empirical basis are questionable, its attention to process is not balanced by equal attention to the consequences of education, and its replicability is questionable. It also suffers from being in large measure, an externally imposed process. The conclusions resulting from it are frequently resisted within the educational organization itself. The other existing response is institutional research. Offices of institutional research have demonstrated their usefulness in the university context (Dressel, 1972), but are largely unknown below that level. Both the accreditation teams and institutional research offices, typically operate without detailed models. Thus, there is a need for a model for evaluating educational organizations.

In contrast to education, a number of writers in the business management field have explored the processes involved in evaluating organizational activities, e.g. Drucker (1964, 1974), Likert (1967, 1960) and Humble (1968).

These models' use and influence in the business community can attest to their effectiveness in that context. However, the transi-

tion from a business to an educational context has frequently been difficult due to the differences between the profit and community service orientation. From the standpoint of evaluating an organization, the business context has the important advantage of having a widely accepted standard, profit or return on investment, with which to work. There is no equivalent standard for judging the performance of non-profit and public educational organizations. As it turns out, business organizations, especially large ones, must increasingly confront this same problem of standards. Their internal operations do not, for the most part, make a direct, unambiguous contribution to the ultimate goal. These models are various attempts to confront the problem of arriving at standards by which organizations can be judged. Thus, they have much to contribute to a similar problem in educational organizations. The purpose of this paper is to draw from the fields of both educational evaluation and business management to produce a model specifying the necessary processes for evaluating an educational organization.

Model Evaluation

One of the hopeful things about the educational evaluation community is its tendency to apply its ideas to own products. I hope that you will share in this practice by evaluating this model both as you read about it and after you finish. Worthen and Sanders (1973) have compiled a table critiquing most of the prominent educational evaluation models. Figure 1 is adapted from their table

and lists both desirable and undesirable aspects of the educational evaluation model itself. I suggest you consider to what degree the model about to be presented possesses these characteristics. I will return to the question of evaluating this model at the end of the paper.

Model Assumptions

The key to any model lies in the assumptions upon which it is based. Sometimes model assumptions are not well defined. But clearly different assumptions will result in different models, and a model will be far less useful to someone who does not share its assumptions than to people who do. As for this model, it is based on four main assumptions about organizations, their purposes and functioning.

1. An organizations purpose and its results lie not in itself, but in the community in which it exists. In one sense, this is obvious. In any society with a division of labor, people and organizations must exchange and thus are interdependent. But some of the implications of this fact are not obvious. The most important is that one cannot tell from a perspective internal to the organization what services are useful to the outside community. Without knowing how the services or products of the organization are valued, it is impossible to tell which activities and costs within the organization are productive and which are waste. All one can tell from within the organization is that costs are being

generated. An important error to be avoided is equating these costs generated by the organization with the benefits received in the community. In almost all organizations, effort is wasted and thus produces no benefits in the community.

2. Results are produced by a combination of repeating past processes and by creating new ones. The repeating of past processes is the way most things are done most of the time and thus it predominates. Unfortunately, pure repetition can only result in things getting worse as new situations make old solutions less applicable. Creating new processes comprises a far smaller amount of the time spent in organizations, but at the same time it is the only way in which mankind can hold its own or make progress.

3. The progress value of new ideas is used up as the ideas are implemented. In terms of the idea itself, its ability to create progress is high before it is applied. Frequently it retains significant potential for new progress as it is used in new situations or combined with other ideas. But eventually all useful applications are found and exhausted. The idea may even become counter-productive as situations change but its application continues even though it has become inappropriate. The same process occurs in terms of organizations. Initially the organization which originated the idea makes use of it and is more productive than other organizations. But as the other organizations see the idea's usefulness, they adopt it and gain productivity. Again, the originating organization can eventually become less productive if it holds on and continues to apply the idea after it has become inappropriate.

4. What is distinctive about organizations are their people and the interrelationships between those people. Facilities and equipment can be duplicated. Even knowledge is a resource widely available in the culture. Successful organizations are frequently copied as to their exterior configurations, but the successful organizations distinctiveness persists because it lies in the unique relationships between the people in the organization.

This model is geared to evaluating organizational effectiveness in terms of these assumptions. It is concerned with determining the needs of the community and judging the results of the organization in terms of those needs. It looks at the organization in terms of its ability to generate new solutions and to keep that process going. Finally, it defines the organization and its processes primarily in terms of the organization's people, their knowledges and interrelationships.

The Model

The model envisions the organizations interacting with the community across two major interfaces, as illustrated in Figure 2. The first is the resource interface. The organization draws resources from the community. The most important resources that educational organizations receive, are the time of the student, teachers, and administrators and buildings in which they are housed.

The second interface between the community and the educational organization is the point at which the educational organization's products

or output is returned to the community as students leave the school. Resources have been utilized to produce changes, typically in the behavior of the students.

The goal is for the organizations interaction with the inputs to transform them so that they are more valuable (in which form they are then called the outputs). In general, that goal is easily met and assessed. The more demanding goal (and correspondingly harder to assess) is whether that increase in value is a greater one than could have been achieved elsewhere. In other words, we have long had the knowledge sufficient to effect some increase in value through education. There are innumerable ways to teach reading for instance; most of which work in some degree. The question that needs to be answered is whether the methods used by the organization are better, that is, produce more value for less cost, than alternative ways.

One way to approach this cost-benefit analysis is to break its consideration into two parts, the inputs and the outputs. In both cases there will be standard usages. For instance, students plus teachers plus books plus a classroom equals the standard way of producing better readers. There are fairly clear definitions of each component as well as the expected change in the students. If our goal is to produce more value for less resources, we can attempt to find resources or inputs that are not standard and cost less in an attempt to accomplish the same goal for less. Or, we can turn our standard resources to producing outputs that are not standard and are more valuable. Or we can attempt to

do both. In the case of the readers, we might find that student tutors using programmed texts produce the same result at far less cost. Alternatively, we might find that instead of teaching reading, we might teach auto repair, and the students learn about as much reading and have a salable skill. Finally, we might use mechanics, student tutors and programmed tests to teach auto repair and find that we gain at both ends of the process. We have used less resources to produce a more valuable end result. If we then pull together the results from the various programs, we have not only a clear assessment of the organization's worth (i.e. what values it produces over what could be produced with the same resources in alternative uses), but also a clear guide to action.

To produce such an evaluation, we now must return to the community to assess its needs and resources. In business, the process of identifying needs is called a marketing analysis or survey.

In education a very similar basic idea is called needs analysis or assessment. There are a number of systematic models in this area as well. (Hammond, 1967; Groteluesbchen and Gooler, 1972 and Poham, 1972). See also Bailey and Ellis (1974) for a brief review of the literature on this subject. Most methods aim at existing needs that can be satisfied by existing methods. At any given time, most of those needs will have been met. The best that can be expected is that some small improvements for isolated groups of people will be possible. The real large scale

improvements that are possible are going to be in identifying needs that people are not aware of or are resigned to living without or which by finding new methods to meet old needs. The point is that this is not simply a systematic process requiring little imagination. Heuristic methods that look for the unexpected are essential. There must be the addition of imagination and vision to make it a process of great value.

From the needs analysis we get the information on needs from which we can begin our analysis of the organizations products. Again the processes involved have been developed extensively by others. Gottham and Clasen (1972) have taken Tyler's paradigm and given detailed steps as to how to utilize it. Grogham (1968) gives a lengthy account of how to evaluate curriculum materials. A very useful tool to summarize and integrate much of the information is the Product Evaluation Profile developed by Scriven (1974). Drucker (1964) also has a methodology derived from business management studies that can be usefully applied.

However, an organization is not simply its environment nor its products. The organization exists to transform the inputs into more valuable outputs. There are two aspects of the organization that are pertinent here. The first is that the process generates costs. The second is that the only thing that can really be distinctive in any organization are its people and their interrelationships.

Lets break this people distinctiveness into two parts, the knowledge of the people and their interrelationships. The first part of this pair is the most fundamental. If the knowledges and

skills, broadly defined, of the people in an organization are inappropriate to its task, no amount of money, materials or organizational structure can make it productive. There are only two available alternatives. The first is to create the appropriate knowledges and skills for the task at hand. The second is to find a task that the knowledges and skills fit. Evaluating an organization on this dimension is not a task that thas been extensively pursued. And yet it is a critically important task. Since almost inevitably there is a tendency for people within an organization to let their skills to become dated or irrelevant.

By definition of what it means to be an organization, the fruits of the knowledges and skills of the people within it are realized through an organizational structure. Organizations exist to enable an organized group of individuals to do things that the same individuals could not do individually. As such, they date back far past the origin of humankind. However, as numerous studies have shown (Chandler, 1962; Penrose, 1959) some organizations are less effective than an individual and, more commonly, many organizations operate at a far lower level of productivity than is optimally possible. Thus, there are rare instances where an organization actually decreases a persons effectiveness, but, more usually, organizations simply do not gain the high degree of effectiveness that is possible. An appropriate organizational structure is the critical element in determining whether the knowledges and skills of the people can be effectively applied to the task. Of course, the ability to create and maintain an effective organizational structure is a set of

knowledges and skills that some individual (s) within the organization must have. Likert (1967) has suggested that a system of human asset accounting be created to measure the resources tied up in the knowledges and skills of the people in the organization as well as the effort invested in creating a good organizational structure. An enormous investment of time and money will have been made to bring together people with the right skills and then create an organization to maximize their effectiveness. That investment is not recorded on any books of organizations either public or private. Since it is not accounted for, it is often forgotten. Since an organization's results are always outside the organization, it can never tell whether its actions are producing value or mere waste from an internal analysis. All it can tell is that its actions cost. There is inevitably some waste and frequently enormous waste in any process. While some useful attacks can be made on this problem from a purely internal analysis, the most important analysis will be from an outside perspective. Drucker (1964) has a useful system for an overall analysis and categorization of costs. Beyond his general scheme there is the whole field of accounting with its subdivision as well as various branches of industrial engineering and operations research. But unless there is a clear understanding that costs results, none of these tools will be used. Unfortunately most educational organizations have not or are only beginning to vaguely realize this fact.

Once the data has been collected, the problem of integrating the results remains. This integration can be approached with two

different intentions. The first is with the goal of judging the organization, typically on a good-bad or go-no go dimension. This type of judgmental approach has been used most frequently on educational products in the past for the very excellent reason that there are frequently judgmental questions such as whether to adopt a particular product or not. In education, about the only equivalent judgment of organizations is the accreditation process. The difficulty here is in specifying what is important. How much success in one area trades off for lack of success in another area? It is important that the process of specifying standards occur. The model suggests areas in which standards must be set.

The second approach to integrating the results of the studies is from the perspective of the decision-maker. This perspective probably has a far greater utility since decision-makers have the responsibilities for improving their organizations on a continuing basis. Integrating the results from this perspective is a two step process. The first is identifying the discrepancies that have been isolated. The second is identifying the appropriate action to be taken in response to these findings.

There are four general types of actions that can be taken based on the information generated by this model of evaluation. The most important type of action is the allocation of resources. The easiest decision is to congratulate successful operations but take their key people and resources to throw in support of the failing operations in an attempt to salvage them. The fallacy of such an approach is relatively clear. The correct approach is to support success and abandon waste as quickly as is feasible. But whatever is done that decision will probably be the most important result

of the evaluation. The other types of actions involve creating something new. New products or programs can be developed. New knowledge can be acquired. New organizational practices can be developed. Each of these actions can be taken in response to the discrepancies that are discovered in the evaluation process.

What types of discrepancies are typically discovered? The first type of discrepancy is between the products or programs of the organization and the needs in the community. This type of discrepancy can point out any one of three actions and most likely all three. First it can point out new products or programs that need to be developed. It can also point out products or programs that are successful but are not being supported sufficiently by the organization to take advantage of their success. Almost inevitably there will be failures that need to be terminated or drastically modified as soon as possible.

The second type of discrepancy is between the knowledges of the people within the organization and the knowledges required by the situation. It points to the new knowledges that must be added to make the organization be effective. Alternatively, it can point to new directions of development that are more appropriate to the existing knowledges. The idea of adding knowledge to existing knowledges in order to be effective at what the organization is doing now seems the easiest and most sensible. However, the difficulty in changing what the people in the organization are good at should not be underestimated. A change of direction toward the development of products or programs that use the existing knowledges

may easily be the best direction especially if the knowledges have changed to a marked degree.

One would expect that a discrepancy discovered in the analysis of the organizational structure would lead to new organizational practices. That is the most common result, but it is not the only possibility. Problems in the organizational structure may point to the need for new knowledges, especially in the handling of people. They may also point to the need for new developments. The organizational structure may not be geared to doing well some of the things that are done now, but is capable of being extremely effective in other areas. Again, it is often more effective not to tear apart the organization simply to be able to continue doing what was done before. As is true of knowledges, organizational structures are not easy to change for the better. If they can be adapted to a more appropriate task, that may be the more useful solution.

The final general category of discrepancies is that of costs. The most common discrepancy in this area is the identification of wasteful activities. The appropriate decision is cut them out. The effectiveness of this decision depends greatly on the committment to it. Beyond simply eliminating waste, discrepancies in the cost data can call for new developments, knowledges and organizational structures. New developments can be useful when existing processes are inflexible, excessively costly, or where other products can be spun off from them to take advantage of work that is involved in their production. New knowledges may be required in areas that were previously marginal but now are major activities. New organizational

structures may cut costs.

Thus the integration of the results from the standpoint of the decision-maker is going to be in terms of actions. While it is not a requirement, the evaluation is an obvious jumping-off point for a major planning process. The data and the implications of the evaluation will provide the factual content necessary. The evaluation process is likely to have gone an important way toward generating the interest and establishing the necessary attitude to support the planning process.

CONCLUSION

By way of summary, let me evaluate the model that I have proposed in terms of the standards contained in Figure 1. Naturally I will rate it as an advocate. It possesses all of the desirable characteristics. From an overall standpoint it is capable of both formative and summative evaluation. If fully carried out, it produces an evaluation of the organization. At the same time, that evaluation is a guide to action for improving the organization, its products and processes. The model is generalizable to all types of educational organizations. It is not tied to a specific type or size of organization. The model does directly assess the worth of the educational organization. It provides for not only collecting data but for integrating the data into judgements. Finally, it is wholistic. It provides for including not only all aspects of the organization but for the community in which the educational organization operates.

In terms of undesirable characteristics, there is unquestionably

a problem with both the clarity of the presentation and of the concepts themselves. The model is an attempt to integrate material from two distinct fields; each with its own distinctive concepts. Inevitably there will be misunderstandings. This model also suffers from not having been entirely converted into a working set of methods. It is only in the initial stages of field testing. Thus, it requires further refinement and clarification. This paper is a step in that direction. It is less vulnerable to criticism on the other undesirable characteristics. The model is concerned with values from its first step, looking at the needs of the community, to its last, integrating the data into judgements of worth. Nor can it be criticized for not evaluating. It evaluates products and services of the organization, its processes and organizational structure, the knowledge of its people, in terms of their ability to meet the needs of the community. Finally, it maintains a balanced focus on process and outcome. It relates the organizations processes to its products and judges them as an integrated whole.

If this model does indeed possess all the virtues just ascribed to it, the next step is to produce a methodology with which to implement it. Due to considerations of length, this will not be attempted in this paper. However, a preliminary version is currently being field tested. The various methodologies mentioned in the paper can be used on an interim basis, especially valuable are the ones contained in Drucker (1964) and Scriven (1974).

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Good Characteristics:

1. Incorporates both formative and summative Evaluation.
2. Generalizable to many evaluation situations.
3. Directly assesses worth of evaluated activity.
4. Wholistic.

Bad Characteristics:

1. Lacks clarity and has overlapping concepts.
2. Places little emphasis on values.
3. Not evaluation - descriptive or planning information.
4. Focuses on process or outcome to exclusion of other.

Figure 1. Evaluation model characteristics. (Adapted From Worthen, B. R., & Sanders, J. R. Educational Evaluation: Theory and Practice. Worthington, Ohio: Charles A. Jones Publishing, 1973.)

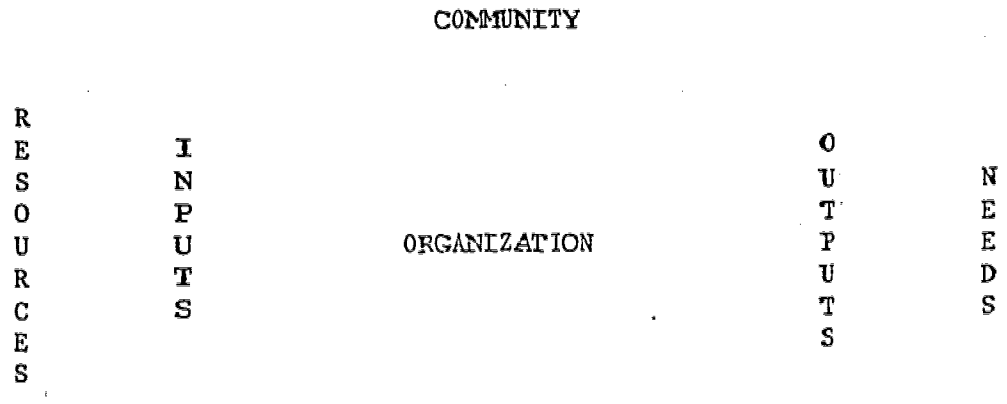

Figure 2. Community - Organization interfaces.