

## Needs Assessment and Educational Change

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Penaksiran keperluan telah menjadi satu isu yang kian menjadi penting dalam proses perubahan pendidikan. Penyelidikan dalam penaksiran keperluan masih kurang. Kajian-kajian berhubung dengan penaksiran keperluan dalam bidang perkembangan kurikulum, perubahan organisasi dan tingkahlaku pelajar adalah diperlukan. Kertas ini cuba menggambarkan cara penaksiran keperluan dan secara ringkas meneliti perhubungan di antara keperluan dengan penaksiran keperluan dalam proses perubahan pendidikan.

### Introduction

Change breeds change and the process continues. Change is perhaps the most pervasive and perplexing characteristic of modern culture. The dynamic aspect of modern society demands that individuals and institutions deal effectively with change if they are to survive and flourish.

The problems related to educational change are particularly acute for academic organizations serving the general public. These organizations are designed to respond to the needs of the public and these needs are changing so fundamentally and rapidly that new structures, services, and delivery systems are constantly demanded. The various educational systems serving the general public are certainly prime examples of organizations experiencing such demands related to change.

Increasingly, the public has expected its educational systems to meet the growing number of individual and societal needs. These expectations have often exceeded the ability of the educational systems to fulfill them.

Given the need for educational change, institutional administrators must then decide either to develop an appropriate innovation internally or seek out an innovation developed outside their systems adequate to their needs. This is, then, a major issue of growing concern in the employment of any strategic approach to organizational change used in the diffusion and adoption of educational innovations. This is the issue of "needs assessment".

### Needs Assessment — State of the Art

In the past decade the topic of needs assessment has appeared more frequently in educational change literature. In a review of 100 empirical studies of change completed since 1970, Paul (1977) was able to generalize that "recognition of school needs and congruence of the change program with needs facilitate change" (Paul, 1977, p. 46). The studies reviewed showed need recognition to be the first step toward successful academic change and school improvement. French and Bell (1973) indicated that most organizational change models include the diagnosis of needs as a basic component in the change process.

In theory, a comprehensive needs assessment, involving parents, students, community and staff, provides optimum results in the identification of needs. Kaufman (1972) emphatically pointed out that:

In conducting a discrepancy analysis (needs assessment) we should include all partners in attempting to achieve educational success. The partners include, at least, the learner, the parents and community members and the educators. An effort to determine needs that does not include all the partners in education runs the risk of presenting a seriously biased starting point for educational design. (Kaufman, 1972, p. 30)

English and Kaufman (1975) also argued that all partners to education should be involved in needs assessment if for no other reason than that the schools belong to the people and exist for the welfare of the students.

Needs assessment is certainly not new to education. A dramatic surge of development in needs assessment had occurred in the last ten years. This surge was evident in the numerous models developed, studies initiated and interest shown in the educational community.

While there is a good deal of activity in the field of needs assessment and some studies reported, research in needs assessment is greatly lacking. Few models have been tested for validity and reliability. The work that has been done at the theoretical level reveals little impact on what occurs in the field. Scant research is available concerning the procedures of needs assessment. Longitudinal studies on the impact of needs assessment in the area of curriculum development, organizational change and student behavior are badly needed. Cost-benefit studies of various needs assessment approaches are also in short supply.

Houston et. al. (1978) reviewed more than 1,100 ERIC Documents, 100 journal articles, and 200 plans and reports on needs assessments and noted that:

Needs assessment as a basis for instructional improvement is not a recent approach. Many papers have been written about it. Numerous local and state studies have been conducted. However, each appears to be an independent, first generation effort; few studies have relied on prior experience for improving their approach. (Houston et. al., 1978, p. xiii)

The future value of needs assessment will depend largely on whether or not educational researchers will engage in research in these important areas.

While most approaches to needs assessment focus on the present and on what schools should be doing now, recent research, particularly in the United States, indicated that there is a trend toward looking to the future to anticipate needs arising from a changing society. Accompanying this trend are some efforts by researchers like Witkin (1975a, 1975b) and Kaufman (1977) to look at outcomes of education rather than processes, which allow for some questioning of the entire institution of schooling.

### **The Concept of Needs Assessment**

A "need" is defined as the measurable discrepancy (or gap) between current outcomes (what is) and desired or required outcomes (what should be). This concept was developed by Roger Kaufman (1972) in his book **Educational System Planning**. This definition of need underlies most of the needs assessment models currently in use.

The term "needs assessment" is defined as a process designed to determine: (a) a desired or required situation in the area being assessed; (b) the present or real situation; and (c) a priority ranking of the kinds and degree of discrepancies between (a) and (b).

English and Kaufman (1975) have also defined needs assessment as:

The formal process for identifying outcome gaps between current results and desired results, placing those 'gaps' in priority order, and selecting the gaps of highest order for closure. (English and Kaufman, 1975, p. 64).

These definitions of needs assessment indicate four general stages in a needs assessment process: (1) determination of desired or required state of affairs; (2) determination of the real or current situation; (3) analysis of the discrepancies between these two states (needs); and (4) a priority ranking of these needs for subsequent action planning for educational change.

A major task for model and process builders is to design activities and strategies which ensure that the product or products of each stage are as accurate as possible. In discussing this concern about the ultimate validity and usefulness of various needs assessments, Kaufman (1972, p. 36) stated that "the data must represent the actual world of learners and related people, both as it exists now and as it will, could or should exist in the future."

Needs assessment is seen as tool to aid in planning successful change efforts in educational development. It can help provide change agents a means to lower the risk of designing or proposing solution for which there are no related problems. Witkin (1975a) and Kaufman (1977) have noted that this function alone establishes needs assessment as a valued component in the process of educational improvement.

While it is important that the needs assessment product be an accurate picture of current needs, it is equally important that those who participate in the needs assessment effort perceive the product (the identified needs) to be accurate.

Rogers and Shoemaker (1971, p. 148), commenting on the rate of adoption of innovations, observed that, "when felt needs are met, a faster rate of adoption should occur" and that "change projects not based on felt needs often go awry or produce unexpected consequences."

A needs assessment does not exist in a vacuum. It is a part of a larger educational change process. This larger process is best served when needs surfaced in the assessment process are perceived as representing the real situation by a majority of those who comprise the system to be changed.

It is not only important that the identified needs be perceived as accurate, but it is also equally important that participants feel committed to their solution. This is especially true of participants who are also directly involved in implementing innovations which result from need solutions. Witkin (1975a, p. 101) pointed out that "commitment of participants and of those who will later be asked to implement the recommendations is essential." The desired effects (perceived accuracy and commitment) are dependent, in large part, on the process used to facilitate each step of the needs assessment process.

### **Needs Assessment and the Educational Change Process**

A place for needs assessment in the educational change process seems obvious to many. Baldrige and Deal (1975, p. 14), however, contented that "To mention the requirement for careful needs assessment seems ridiculous. After all, is not all change preceded by such analysis? Unfortunately, this is not always the case."

In fact, innumerable change processes involved with the diffusion and adoption of educational innovations have taken place without a needs assessment or with a needs assessment that did not meet certain defined criteria. What then is the relationship of needs assessment to the educational change process? How important is needs assessment to the success of educational change efforts?

One approach to understanding the relationship of needs and needs assessment to the educational change process is provided by Rogers and Shoemaker (1971) in their classic

study of the communication of innovations. To understand the change process, their study indicated that it is important to determine the source for change. Two factors are involved in this analysis: (a) recognition of need; and (b) origin of the new idea or innovation. The source for these can either be internal or external to the educational system undergoing change.

Rogers and Shoemaker (1971) developed a paradigm of types of social change as shown:

	Origin of the new idea	
Recognition of need for change	Internal to the SYSTEM	External to the SYSTEM
<b>Internal:</b> Recognition is by members of the social system	IMMANENT CHANGE	SELECTIVE CONTACT CHANGE
<b>External:</b> Recognition may be by change agents outside the social system	INDUCED IMMANENT CHANGE	DIRECTED CONTACT CHANGE

*Source:* Rogers, E.M. and Shoemaker F.F., **Communication of Innovations: A Cross Cultural Approach**. 2nd. Edition, New York: The Free Press, 1971.

Immanent change occurs when members of a system identify their own needs and designs, diffuse and adopt their own innovations to meet their needs. For example, a school system may identify its own need for a gifted program and design its own program for use through-out the system. Selective contact change occurs when members of a system identify their own needs and adopt an innovation appropriate to their needs designed outside the system. For example, a school system may identify its need for a gifted program and adopt a successful gifted program designed by another school district.

Induced immanent change occurs when sources outside the system identify or impose a need and those internal to the system design the appropriate innovation. For example, a state department of education may mandate a gifted program for a particular district and district personnel design their own program. Directed contact change occurs when both the need and the innovation come to the system from outside. For example, a state department of education may mandate a gifted program and heavily regulate the kind of program necessary for compliance with the mandate.

Educational changes which tend to be effective, easily internalized and require the least amount of supervision result from immanent change. The next most effective source is selective contact change, followed by induced immanent change with directed contact change or mandated change generally yielding the least productive results overall.

Since immanent and selective contact change each includes internal need recognition by the system undergoing change, the analysis suggests that needs assessment is an important step in a successful educational change process.

The choice of a needs assessment model in a specific case is dependent on the type and the scope of change effort which an educational organization wishes to address. Each needs

assessment model has certain assumption which need to be identified and understood to judge whether or not it is appropriate to the task.

One attempt to classify the various needs assessment models according to their assumptions has been undertaken by Kaufman (1977). He has identified and matched the assumptions of needs assessment models to his six-step generic problem solving model. At each of the six steps in the planning model — needs assessment, identification of alternatives, selection, implementation, evaluation, and revision —; a certain type of needs assessment is most appropriate. Kaufman has noted that there are no “right” or “wrong” models of needs assessment, rather there are some more appropriate than others, depending on the scope of the problems which an educational organization wishes to address. Kaufman’s classification of needs assessment is designed as an aid to educational change agents in selecting the most appropriate type of needs assessment for their purposes.

It is not enough to simply surface accurate organizational needs, these needs must also be perceived as accurate and important by organization members. If they are not so perceived, organizational members, especially those directly responsible for educational change implementation, are less apt to be committed to change efforts directed toward need solutions. This perceived accuracy and commitment, so important to the change effort, is seen as a product of a process that facilitates effective participation of all those involved in the change effort. The key to effective participation is a well-planned and well-executed system of communication, especially group processing.

## Conclusion

While the past decade has seen a dramatic surge in the development and use of needs assessment procedures, research efforts in the areas of validity and reliability of the models, impact data on curriculum development, organizational change and student behaviour, and cost-benefit analysis have not kept pace. This lack of research decreases the value of needs assessment as a tool for those involved in educational change.

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