
NEEDS ASSESSMENT AND HOLISTIC PLANNING

The external needs assessment links school efforts and results to social requirements and realities.

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There can be little doubt that needs assessments, in one form or another, are becoming a part of educational planning and development. There are kits, admonitions, plans, concepts, and junk (Witkin, 1977). Most needs assessment procedures, but not all (Scriven and Roth, 1978), use some form of a discrepancy model¹ that asks the educational planner to identify and document the gaps between "what is" and "what should be."

With these alternative procedures, controversy about "need" and needs assessment has surfaced—particularly over how the term "need" is defined and used. Scriven and Roth (1978) use "need" both as a noun (as a gap between actual and satisfactory) and as a verb ("A needs X"). Confusion is increased when they attempt to define needs in terms of process gaps ("treatment-need") and as a gap between actual and satisfactory (a "performance-need"). Users get confused as to whether a "need" is a gap in results or a way to eliminate a gap in results. By restricting the use of "need" to a gap in results, confusion can be avoided.

All gaps are discrepancies, but not

all gaps are "needs." Taking a closer look, gaps or discrepancies can be observed in a number of places within the complex parts of a school or school system. There can be gaps between present and required levels of resources (for instance, not enough money to purchase reading texts for learners). There can also be gaps in processes (learning materials are too difficult for one group but not another). And there may also be gaps in results (some high school graduates cannot read, write, or compute well enough to get and keep a job, while others can). Here are three different kinds of gaps. Is each an appropriate example of a "need"?

Although the literature has referred to these different kinds of gaps as "needs," it is more useful to restrict the term "need" to gaps in one of the three types of results: products, outputs, and outcomes. By so doing, we can avoid the troublesome problem of confusing means and ends. When means and ends are allowed to remain confused, we may either allow a means to become an end in itself or to select inappropriate ends. We might rush in with a well-intentioned solution (such as a reading program) and find out later that it doesn't close the gap! And we may have selected the wrong solution to the learning problem because we did not "trace" the problem (such as low reading scores) back into society where we might have found a more

basic gap in valuing behavior relative to what should be read. The most basic gaps to which a needs assessment should address itself are those found in society—gaps in values, aspirations, making a living, and the resulting standard of living. The subsequent "internal" needs assessment—assessing gaps within education—can be used to identify gaps in educational results and processes.

The basic referent for "what should be" is minimal self-sufficiency and contribution to society after students leave the formal educational system (Kaufman, 1972; Kaufman and Carron, 1980). This concept serves as the basis for external needs assessment (Kaufman, 1977) because its roots are in society, not within the school system. External needs assessment requires that educators begin planning with a determination of the requirements, current and future, for individual and collective self-sufficiency in society. This is a holistic approach that goes beyond the boundaries of the school and provides a link between curriculum, instruction, and society.

Self-sufficiency is defined as economic and social self-reliance (and hopefully contribution) when production (personal income) is greater than or equal to consumption (personal expenditures). It also includes personal factors such as self-concept, values, and preferences. Determination of self-sufficiency requires the

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use of indicators rather than absolute criteria. Moreover, self-sufficiency is culturally dependent. What may be self-sufficiency for one ethnic or socioeconomic group may not be adequate for another. For example, individuals in an underdeveloped, agrarian society may require different kinds of knowledge, skills, and income than those required in a developed, industrialized society. *Minimal* self-sufficiency can and should be defined for individuals given their societal context.

One limitation of an external needs assessment model is that current knowledge is not totally precise and complete. We only have available present economic indicators of self-sufficiency, and these do not represent a full array of all possibly important parameters. These economic indicators include measures of individual credit ratings, income level of specific individuals as compared to others, ability to get and keep a job, individual income-expense ratios, and expected levels of income and outgo (Hills and King, 1978), or freedom from requiring food stamps, welfare,

unemployment, or other types of transfer payments. Such measures may be derived from and decisions relative to alternative public educational programs may be determined on the basis of relating the individual good to the public good (Kaufman and Carron, 1980). There are other indicators of self-sufficiency in the intellectual and social domains of behavior. These include ability to seek and use information as a citizen and to establish and maintain positive social relationships in the home, on the job, and in society.

Forging a New Bond With Reality

Educators, legislators, lawyers, social workers, counselors, physicians, community psychologists, and clinical psychologists should start their planning and needs assessments with an external—societal—referent. This external starting place, minimal self-sufficiency in today's and tomorrow's world, represents an intended "outcome" for education.

An outcome is the impact an intervention has on society. Outcomes serve

as the basis for determining intended results as well as realistic criteria for assessing the effectiveness of educational agencies (Kaufman and Thomas, 1980). Outcomes are the "bottom line" criteria upon which to begin and then to evaluate planning, program implementation, and impact.

There are three types of results to bear in mind: outcomes, outputs, and products. *Outcomes* are results in society, such as citizens who are economically, socially, and intellectually self-sufficient. *Outputs* are the results an organization "delivers" to society, such as graduates who have acquired the skills, knowledge, and attitudes to be self-sufficient. *Products* are the en route results an organization produces as it attempts to meet its aims and purposes. Indicators of products include courses completed, skills acquired, and so on. *Processes* are the methods and means for obtaining results, such as curriculum and instruction. In order to achieve products, outputs, and outcomes through processes, inputs are required. *Inputs* are ingredients and starting requirements that a system

Figure 1. Relationships between organizational elements and results and some examples of each (Based on Kaufman and English, 1979).

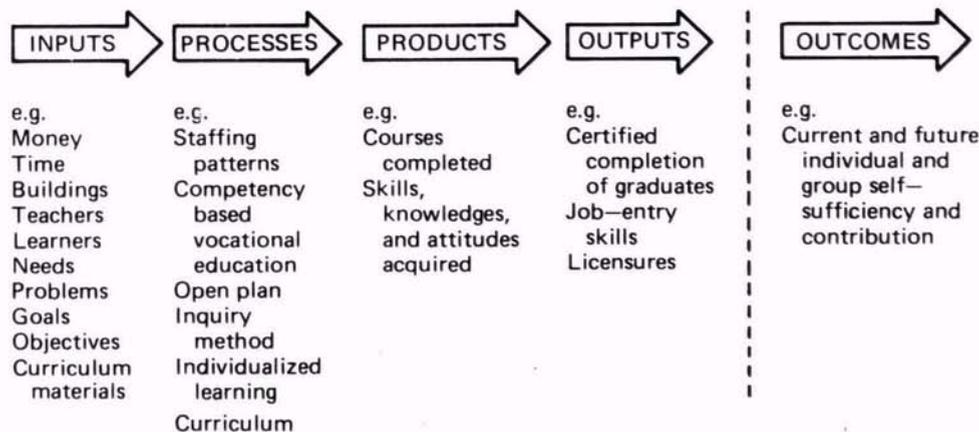


Figure 2. The suggested relationships between internal organizational efforts and results and external societal results (after Kaufman and English, 1979). Combining both internal and external viewpoints yields a holistic emphasis.

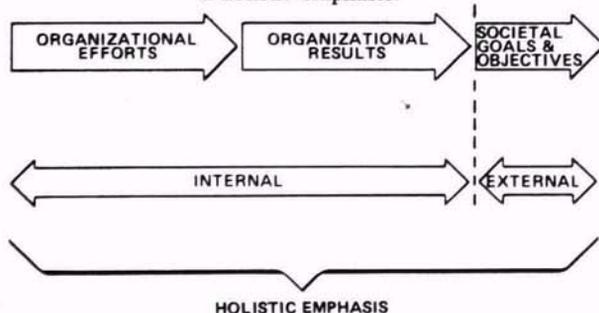
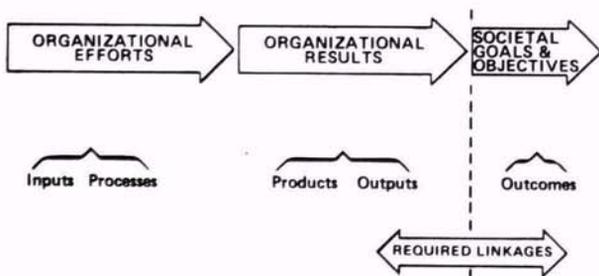


Figure 3. Bridging the internal-external interface by establishing required linkages between organizational efforts, organizational results, and societal results.



may use to achieve its purposes, such as money, teachers, goals, objectives, facilities, and the like. These five organizational elements describe what an organization does (inputs and processes), what it achieves (products and outputs), and the impact of these elements in society (outcomes). Figure 1 shows relationships among the "organizational elements," the different levels of results and some examples of each (Kaufman and English, 1979).

Input and process gaps should not be classified as bonafide "needs." Inputs and processes have been the subject of so-called needs assessments, but gaps in these areas relate only by inference to results-oriented needs assessments. Gaps in inputs and processes are "quasi-needs" at best. So discrepancy analyses concerned with them might be termed "quasi-needs" assessments with the caveat that they refer to assessing gaps in means and not ends.

Schools have been created to serve society. They are means to societal ends. Therefore, if educational organization efforts and results are going to have the most utility for society they should relate to societal outcomes—results external to the educational organization. The relationship between internal efforts and results and external societal results is shown in Figure 2.

If what we do in education is to have greater usefulness to learners, links must be established between what educational agencies do with learners and the requirements for individual and collective self-sufficiency and contribution in society. These linkages are depicted in Figure 3.

Some Philosophical Issues

Planning on the basis of an external referent is different from other planning methods and concepts (Simon,

1969; Kaufman, 1972; Provus, 1972; Kaufman and English, 1979). Most planning efforts start with an internal set of objectives and move to identify and meet organizational goals and objectives; thus they assume that internally derived goals, objectives, and results will satisfy external societal requirements. But do they? Linking the *internal* with the *external* is a difficult, not fully charted course. There are some who argue it is impossible or difficult at best, and even some who hold that it should not be attempted. The work of Scriven and Roth (1978) indicates their consideration of only the internal aspect of needs assessment. Although Popham (1975) indicates awareness relative to external considerations regarding selection of performance indicators and criteria, he seems to advise against their use on practical grounds.

The arguments against using an external referent seem to cluster into five sometimes overlapping areas.

Both sides of the arguments have little empirical data to support their positions; they are, therefore, philosophical. They will be resolved only when needs assessments using the external referent are tried (Kaufman and Stakenas, 1978).

Argument one: The economic utility referent of self-sufficiency is too narrow and restrictive, and does not represent the full array and richness that an educational system should provide for learners, because it is only an indicator and not sensitive to all people under all conditions.

Rebuttal: While it is true that an "indicator" such as self-sufficiency does not describe the full array of skills, knowledges, and attitudes a school could deliver, self-sufficiency is the *minimal* outcome requirement for a school. Intangibles such as critical thinking, self-respect, good citizenship, and art appreciation, while important, are much more meaningful when an individual is achieving or is on the way to achieving self-sufficiency. An external needs assessment does not rule out such intangibles; it requires only that self-sufficiency be the basic, "bottom line" for educational planning.

Argument two: The economic utility data for self-sufficiency is difficult if not impossible to obtain.

Rebuttal: Much individual information about income and financial worth is private and protected by law. There are, however, indicators of self-sufficiency that provide educational planners and evaluators with a more useful planning base than pure conjecture or good intentions alone. Indicators include individual credit ratings, samplings of a variety of net worth statements for individuals typical of a part of the target population, poverty-level data for a region or district or the absence of having to get unemployment, welfare, food stamps, or other charity. Thus, while the data might be expensive or difficult to obtain, useful indicators may be derived, and these provide a better planning base than what is currently being used.

Argument three: Organizational focus and change of this major magnitude is threatening to educators and parents, and thus will not be permitted.

Rebuttal: It is true that substantial change tends to be threatening to many individuals and that those who advocate or attempt it are often "punished" (Reusch, 1975). It also seems to be true that change-for-change's-sake is more threatening than change that makes sense to the individuals being asked to change. While much change that has been attempted in schools (and indeed in other social agencies) has not been wildly successful, change has occurred. We suggest that when change is introduced and seems rational as well as logical, much of the opposition will be reduced. By basing change requirements on external realities such as self-sufficiency and not on internal considerations such as busing, team teaching, behaviorism, modular scheduling, or computer-assisted instruction, people will have better reason for attempting change. Many of our previous attempts at change only proposed to exchange one "means" for another (busing as a substitute or adjunct to curriculum, for example). This type of exchange, rather than "deep change" (Kaufman and English, 1979; Kaufman and Stakenas, 1978) is less than productive in most instances and deserves resistance.

Argument four: The linkages between educational efforts and results and societal outcomes are not available, and are tenuous to build.

Rebuttal: There are neither data nor models which clearly link outcomes with the other educational elements of inputs, processes, products, and outputs. This has not been a central issue, and the procedures and models for so doing are only now being considered. This argument, then, has currency. However, with the understanding and commitment to planning using an external referent, such linkages can and will be developed (Kaufman and Carron, 1980). There is another aspect to this argument: perhaps some current curricular offerings might have to be changed. Justifying some existing courses and curriculum in schools might be increasingly difficult if one were to put primary emphasis for minimal products, outputs, and outcomes on self-sufficiency. Clear linkages do not currently exist, nor does any justification for the effectiveness of current offerings in helping today's

and tomorrow's citizens (Sobel, 1980).

Argument five: Educators should not set educational goals, but only carry out policy set by legislators, executive branches of government, or policy boards outside of the schools.

Rebuttal: It is true that in most cases legislators, de facto, set educational goals and objectives by the way in which they fund (thus "enable") education. By attaching how-to-do-it provisos to funding bills, they not only set the intended results but also prescribe the inputs and processes. Actually, they most often prescribe inputs and processes that shape the products and outputs. And when it doesn't work out well they blame education and tinker once more with inputs and processes. This situation is "what is." It does not have to be "what should be" or "what will be."

Legislators are not usually educational experts. They are elected representatives with a strong instinct for survival and usually a desire to help their constituency. They are neither evil nor destructive by nature, and they often legislate inputs and processes in frustration over not having some useful criteria by which to judge and provide for the schools (Carron, 1977).

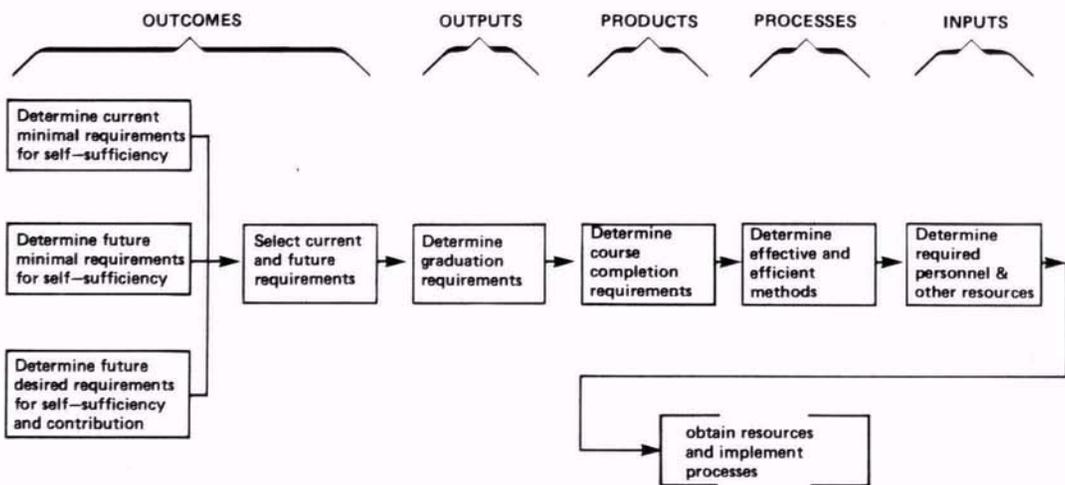
By using planning data from an external referent, the legislator and the executive branch will be able to make more rational, useful decisions about education. By involving them in the needs assessment and by providing them information on the basis of self-sufficiency (which makes sense to most lay persons), educators may forge a new bond with reality.

A frequently encountered subset of this argument is that planned change is impossible within a school or school system. If change is to occur, they argue, then it has to be prescribed at the highest levels. This concept has no support. Change is possible if people are convinced change is useful and desirable (Greenwald, 1973). A "victim" mentality which presupposes that change is impossible will usually result in a self-fulfilled prophecy. It does not have to be so.

Implications for Schools

The effectiveness and efficiency of schools may be dramatically im-

Figure 4. A strategy for educational system design.



proved by adopting a holistic view of the relationship between schools (as means or processes) and the societal end of self-sufficiency. By starting the educational design and development process with external considerations, we are more likely to select and organize inputs and processes that result in socially valued results and, consequently, increase public acceptance and support for the educational enterprise. A model for deriving and designing useful education is presented in Figure 4.

This process is dramatically different from the one currently used in education (and indeed training as well). It is a rational, effective procedure that should result in less "educational scrap" (Lessinger and Connors, 1978) and less public disdain for education. It does not make sense to begin and end educational needs assessment and planning at the front door of the schoolhouse. Learners do not stop there, so why should our planning and evaluation? ■

¹ There appears to be a misconception on the part of some that a discrepancy model is a deficiency or deficit model of need. Careful analysis of

definitions is required to make this determination. A discrepancy model does not have to be a deficiency or deficit model.

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