

Relating Needs Assessment, Program Development, Implementation, and Evaluation

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INTRODUCTION

The last 10 years have brought an increasing interest in assessing needs along with a responsibility for accomplishments. Consequently, several varieties of needs assessments have appeared, each with its own assumptions, scope, tools, and procedures (Witkin, 1977). In this paper we explain and differentiate among several types of needs assessment. Furthermore, we recommend one type—the external needs assessment—as a most useful starting point for planning and accomplishment. Finally, we present the steps for implementing this and other types of needs assessments.

Upon completion, you should be able to discriminate between needs assessments and quasi-needs assessments. You also should be able to describe the processes of external and internal needs assessments and relate them to organizational efforts and organizational results and then further relate these to organizational impact upon society (the Organizational Elements Model). Our intention is for you to discriminate among and be able to employ various models and techniques for developing a program of interventions based upon needs, implement it and evaluate it—all for an effective and efficient identification as well as a solution of any problem.

This unit consists of 10 sections:

- Sections 1-4 provide definitions and explanations of basic concepts that are used in this instructional unit.
- Sections 5-8 deal with the processes of needs assessments, planning, implementation, and evaluation (the "how-to-do-its").
- Sections 9-10 provide checklists to summarize the steps involved in needs assessments, planning, implementation, and evaluation.

Each section is numbered to identify it for later summary questions and review. If you think you already know the content, go directly to the questions embedded in each section and to those at the end of this unit. If you do not know it, proceed through the content and upon completion check your understanding by answering the questions at the end.

DISCUSSION OF BASIC CONCEPTS

1. Need Defined

The term *need* is used here in a unique and singular way: *Need* (a noun) is a gap between "what is" and "what should be" in terms of results (Kaufman, 1972). Defining *need* as a gap between desired *results* and observed *results* ensures that no solutions, how-to-do-its, or processes for closing the gap will be included in the need statement. It avoids the confusion of means and ends. Including any type of means,

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solutions, or processes in a statement of need will reduce the options for meeting that need and, thus, foreclose the possibility of finding new or creative ways of closing the gap. Furthermore, by using *need* as a verb (e.g., "We need more money"), we risk implementing a solution (money) that may not fit with the basic underlying gap in results (the real need). A need is a discrepancy—a difference in results—not necessarily a deficit or deficiency. An assessment that produces statements such as, "We need to provide more inservice training for the supervisors," or "We need more audiovisual equipment for our staff training program," would fall into a "wish list" category because the statements assume that important gaps in results exist—an assumption that a needs assessment should verify or reject with valid, objective data. Further the statements assume that these solutions will close those gaps ... by "wishing" for a solution vehicle instead of documenting a gap in results *before* considering possible means for closing a gap.

PRACTICE EXERCISE 1

1. Which of the following statements are "means" and which are "ends"?
- John should get a training program.
 - John should get more education.
 - John should be able to support himself and his family.
 - John's wife should learn how to keep spending within the family budget.

Answer:

Statement "c" is the only "end" statement that relates to a discrepancy between existing and desired results. Statements a, b, and d describe possible "means"—solutions to John's problem; "how-to" possible alternatives selected before clarifying the "what should be."

2. Which of the following are *not* "needs" as defined in this section?
- We "need" instructor training.
 - We have a "need" for a needs assessment.
 - 37% of our graduates are on unemployment, and our target was to have 90% fully employed.

Answer:

Items a and b are not "needs." They do not describe gaps in results.

2. External and Internal Needs Assessment

Derived from our definition of a *need*, the term *needs assessment* simply means *determining* gaps between current results and desired or required results and selecting the most critical gaps for closure.

There are two possible overarching referents for needs assessment: one that looks at needs from a holistic point of view outside the organization—in society, and one that looks at needs as seen within an organization. The first is called *external* needs assessment, and the second is termed *internal* needs assessment (Kaufman & English, 1979).

An external needs assessment attempts to identify the results that are important in order for someone to be, at least, self-sufficient, self-reliant, and not economically dependent once he or she is outside the organization (educational or industrial). The requirements for this "independence" should be used as the basis for planning (Kaufman & Carron, 1980). In other words, an external needs assessment considers what individuals will have to do to be self-sufficient once they exit the educational or training system. Can they get and hold jobs? Survive socially and personally? Maintain physical and mental health? Make contributions to their community and society? If there are gaps between what individuals can do in the current situation (the "what is") and what they *should* be able to do (the "what should be") with regard to the criteria of self-sufficiency and contribution, then action should be taken to close these gaps.

Once these external criteria are set, the internal varieties of needs assessment become useful because fewer assumptions are required regarding the organization's effect or impact on society. The social usefulness of organizational efforts thus can be increased and maintained.

An internal needs assessment attempts to identify gaps in organizational goals and objectives and, thus, enables one to correctly identify means for accomplishing the results previously determined through an external needs assessment. This linking of external and internal reduces the chance of developing "blue sky" internal objectives. Unfortunately, most efforts in needs assessment are currently of the internal variety only, i.e., restricting the investigation to gaps in accomplishing current goals and objectives within a particular organization. Internal needs assessment is best augmented with external needs assessment data (Kaufman & English, 1979) to ensure that organizations will be useful means to societal ends.

Consider a major automobile manufacturer that has been suffering great losses in sales. What will it do? Before considering doing anything, it would be wise first to take into account external criteria such as: What are major trends in societal requirements for cars (e.g., safety, fuel efficiency, environmental impact)? What is the customer looking for? How affordable is the product to the buying public? What is the cultural and physical environment demanding? Then consider an internal point of view that looks at the goals within the organization: how to produce more cars (of the correct type) in less time and at lower cost and sell them as profitably as possible. Since societal criteria will undoubtedly affect sales, they ought to be considered first. Increasing productivity without a receptive market might doom the company.

PRACTICE EXERCISE 2

Which of the following are external factors:

- a. 27% of the 1979 production was recalled because of safety hazards.
- b. Cars should be stylish and appealing.
- c. Car sales went down 23% in 1979.
- d. Car sales should be up 46% in 1981.
- e. Quality control shows a 31% rejection rate of transmissions.

Answer:

Only item a is an external factor. Items b, c, d, and e are internal factors (organizationally related).

3. The Organizational Elements Model (OEM)

In conducting an external needs assessment, it is necessary to relate both to people within the organization under study as well as to the reality of what people have to know and do outside that organization—currently and in the future. These relationships (shown in Figure 1) can be clarified according to an Organizational Elements Model

(Kaufman, 1979; Kaufman & English, 1979) that will serve as the major tool for relating needs assessments, program development, implementation, and evaluation.

The organizational elements are:

Inputs: The existing, available raw materials, ingredients, and starting conditions that an organization has on hand with which to achieve its mission:

- Needs
- Goals
- Personnel
- Learners
- Money
- Equipment
- Laws
- Policies
- Facilities
- Plans

Processes: The methods and means, the ways, and the how-to-do-its by which ingredients and materials are staged, managed, modified, and put into action such as:

- Instructional programs
- Management by objectives
- Staff development
- Participative management
- Supervision
- Production lines
- Curriculum
- Computer-assisted learning
- Systems approach
- System approach

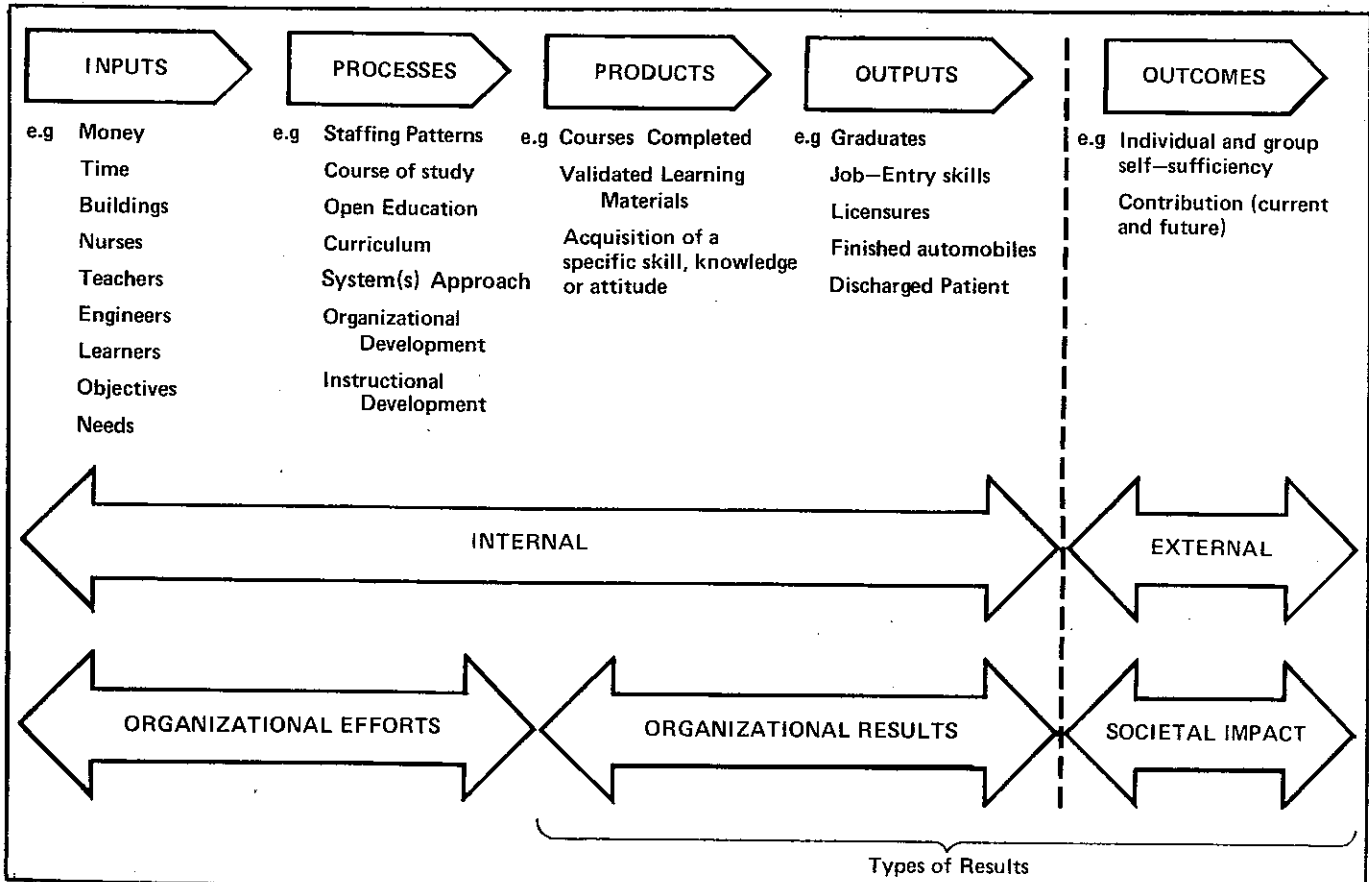


Figure 1. The Organizational Elements Model including some educational examples of each and the relationship between the elements and the Internal and External frames of reference. (After Kaufman, 1979)

- Products:** The enroute results (or things) an organization produces:
- Windshields, fenders, tires
 - Validated training materials or procedures
 - Completed course
 - Attained competency
- Outputs:** That which an organization may or does deliver to society; an aggregation of organizational products:
- Automobiles ready for delivery (or delivered)
 - Personnel with productive skills who work for the organization and live in the community
 - Graduates of an educational institution
- Outcomes:** The effects or impact of organizational results (outputs) in society:
- Positive balance of payments
 - Persons who are economically self-sufficient
 - Ecological balance
 - Profit (as an indicator of utility of outputs)

- c. 315 people last year committed suicide because of depression over inoperable tumors, and the number must be reduced to no more than 75 by next year,
- d. The current discharge rate of patients from the Block Memorial Hospital is 93%, and it should be 99% within 2 years.
- e. Scores on the functional literacy test for entering freshmen at the State University is 9.2 grade level, and it should be 10.8 or above.
- f. At this time 90% of all students pass physics, and at least 96% should.

Answers:

Item f deals with a gap in products.
 Item e is a gap in inputs (entering freshmen characteristics).
 Item d deals with a gap in outputs.
 Item c deals with a gap in outcomes.
 Item b deals with a gap in processes.
 Item a deals with a gap in inputs.

4. Needs, Quasi-Needs, and the Organizational Elements Model

Figure 2 shows a representation of the Organizational Elements Model with two added dimensions: "what is" and "what should be." This figure suggests that a procedure (the solid arrows) that incorporates both internal and external needs assessment would include determining, progressively, "what is" for inputs, then move to processes, then to products, then outputs, and finally to outcomes. The purpose in following this sequence is to determine linkages and the required level of congruence between the organizational elements.

PRACTICE EXERCISE 3

Match the following to the organizational element they best fit with:

- a. There are 11,354 students entering the Class B training program this year. There were 8,115 last year.
- b. There currently is no inservice staff development for human resources development workers, so a training program is required.

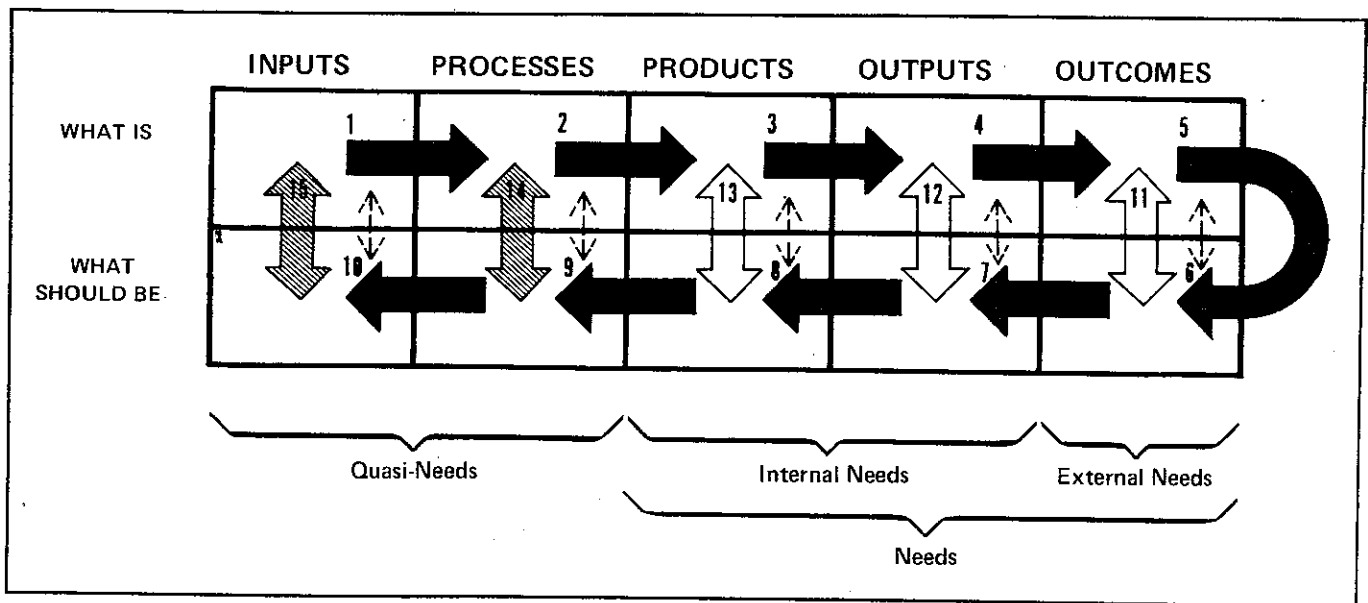


Figure 2. A sequence for determining "what is" and "what should be"; Needs Assessment (open arrows 11, 12, and 13) and Quasi-Needs Assessments (cross-hatched arrows 14, 15).

After this "what is" assessment, the same procedure may be performed for "what should be" by starting with outcomes, then moving back through outputs, products, and processes and then finishing with inputs. Thus, the gaps between "what is" and "what should be" for each of the elements (or combination of elements) can be identified through discrepancy analysis (arrows 11-15, Figure 2).

An important but subtle point should be emphasized regarding the "fit" between internal and external environments and between outputs and outcomes. It is not enough simply to count the number of "output" units produced by an organization; if the organization is to enjoy continuing success, its outputs must be valued and useful in the external environment. Thus, if automobiles are the output, they must be sold and found useful for the corporation to achieve its mission. In like manner, graduates of educational organizations must be able to perform effectively in economic and citizen roles in society if the legitimacy of educational institutions is to be validated and maintained. The criteria for and judgments of success ultimately come from the external, not the internal, environment.

Not all discrepancies between "what is" and "what should be" are needs. In section 1 of this paper we defined a need as a gap (or discrepancy) in results. Results can be external—societal; for instance, an "outcome" of national security. Results also may be internal (organizational) products, such as trained Navy personnel, and outputs such as the Navy's performance in war games (to maintain the nation's security).

However, gaps between "what is" and "what should be" for inputs and processes are not needs. Rather, when selected without a needs assessment based on gaps in results, they may be better labeled "quasi-needs," "wants," or "wishes." We do not consider them to be needs since within the organizational elements model, inputs and processes belong in the realm of organizational efforts, not organizational results. For example, the number of submarines on-station in the Navy are "quasi-needs" in terms of inputs or resources. Gaps in management-by-objectives proficiency for sophisticated equipment or assignment rotation are quasi-needs: they are processes. Thus, in Figure 2 the open arrows (11, 12, 13) indicate needs assessments, and the crosshatched arrows (14, 15) designate quasi-needs.

Many procedures found in the literature (no matter how well-intentioned) called needs assessments are really quasi-needs assessments—they examine gaps in inputs or processes.

PRACTICE EXERCISE 4

1. Review the examples in Practice Exercise 3. Classify each in terms of being a "need" or a "quasi-need."

Answers:

Examples a, b, and e are "quasi-needs." Examples c, d, and f are "needs."

2. Which of the following should qualify to be on a "wish list" rather than on a listing of "needs"?

- a. Train nurses in social skills.
- b. Hire three instructional technologists.
- c. Use instructional computing.
- d. Use multimedia.

Answer:

All are "wish list" items; they are "quasi-needs."

3. Classify the following statements as needs or quasi-needs. Specify whether they are internal or external, and indicate the organizational element they fit under.

- a. Sales of new medication should increase by 50% by January 1982.
- b. Experimental research should be conducted.
- c. Physicians should develop a new, improved type of medication by January 1981.
- d. Two experts in biochemistry should be assigned to the research project before February 1981.
- e. 100% of patients treated with the new, improved medication will become healthy and will function normally following 7 days of treatment.

Answers:

- a. need, internal, output.
- b. quasi-need, internal, process.
- c. need, internal, product.
- d. quasi-need, internal, input.
- e. need, external, outcome.

FROM CONCEPTS TO APPLICATION

5. Partnership Planning

To determine accurately "what is" and "what should be" for a particular set of symptoms or conditions, representatives of groups affected by the problem and its solution should be involved formally in the needs assessment effort. By involving those people who will be, or could be, affected by the outputs of the system, there will be a higher probability of acceptance of the results and a higher probability that all important aspects of the problem(s) will be identified. Partnership planning is an integral component of any useful needs assessment.

Partner group representatives—e.g., learners, educators, and community members; or patients, health practitioners, and community members—have the responsibility of determining gaps between current results and desired (or required) results according to their values. The partner groups then compare their "perceived needs" in order to find and agree upon a common set. These perceived needs should be justified and documented by empirical external data concerning requirements for self-sufficiency in order to include both "felt needs" as well as externally documentable and empirically justified needs.

Frequently, disagreements arise over means (processes) or how-to-do-its rather than over gaps in results; e.g., pa-

tient care versus patient health. There are times when people argue about means and believe they are dealing with ends. Agreement and consensus usually are increased by shifting all discussions from means to ends, ideally, to gaps in outcomes.

PRACTICE EXERCISE 5

Partners should be included in planning because:

1. They usually will get upset otherwise.
2. They will be instrumental in seeing that any resulting plan will be successful.
3. Obtaining partner data is less expensive than doing a complete study.
4. It is important to ensure that all perspectives are considered.

Answer:

Only item 3 is incorrect.

6. Change and Maintenance Requirements

Given the data base compiled from the partner groups plus the data for self-sufficiency requirements, the needs assessment process determines the actual gaps between "what is" and "what should be" for each of the organizational elements, shown as open and crosshatched arrows in Figures 2 and 3. Then, a useful analysis may be made to develop a listing (shown in the bottom two rows of Figure 3) of that which should be changed—change requirements—as well as a determination of that which should be continued and maintained—continuation or maintenance requirements.

A useful criterion for selecting needs is on the basis of considering costs and results to select needs by asking (and answering) the dual questions:

1. What does it cost to meet the need?
2. What does it cost to ignore the need?

Listing that which is to be changed as well as that which must be continued highlights the fact that needs assessment and planning not only deal with change but also with pre-

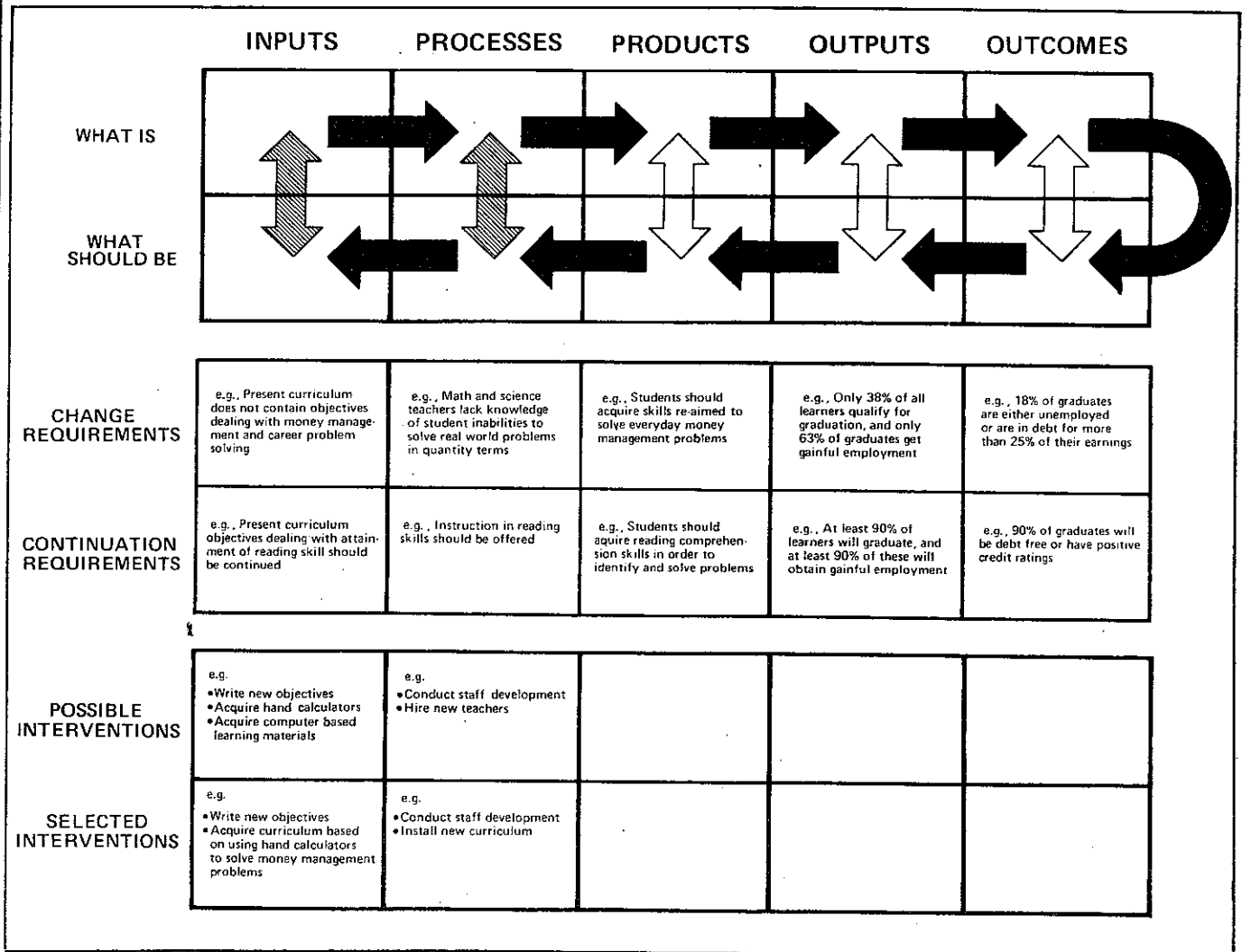


Figure 3. Identifying requirements for change and continuation from needs assessment data and linking problem solving and planning to needs assessment information (Using an educational example).

servicing that which is in-process and useful. Also, because of the wide use of discrepancy models, it is important to note that a discrepancy is not necessarily a deficiency (Scriven & Roth, 1978).

PRACTICE EXERCISE 6

1. A needs assessment:
 - a. Identifies only what should be changed.
 - b. Identifies gaps in resources and tools necessary to bring about change.
 - c. Identifies both change and continuation requirements.
 - d. Identifies deficiencies or deficits of the current system.

Answer:

Only item c is correct.

2. The "need" to be selected for resolution is selected by:
 - a. Majority vote of the partners.
 - b. Relating costs and results for meeting or ignoring the need.
 - c. Taking the need with the greatest gap.
 - d. All of the above.

Answer:

Item b is correct.

7. Methods and Means: Relating Intervention to Objectives

When the listing of change and maintenance requirements is completed, the needs (gaps in results) are placed in priority order. Then, the balance of planning may be continued with the derived data. As shown at the bottom of Figure 3, planners or designers should list the possible methods-means or interventions (programs, projects, curri-

culum, techniques, etc.) that might serve to close the gaps and/or maintain those results that have been selected for continuation. Then, the interventions that meet feasibility and effectiveness criteria are selected (see row marked "Selected Interventions"), and implementation is ready to begin. Up to this point, this process has yielded the requirements for maintenance and change for each of the organizational elements and, further, has identified possible methods and means (strategies, tools, and procedures) for reaching the required products and outputs.

One should make functional decisions among possible alternative ways and means for doing a job based upon the results, both internal and external, that have to be achieved. Asking people about what resources or tools they want without prior reference to justified required results is a poor method for useful planning and development.

PRACTICE EXERCISE 7

The most useful time to select an intervention (or a methods-means) is:

1. Whenever you get the money.
2. After completing the needs assessments.
3. After completing the quasi-needs assessment for processes.
4. Whenever there is justification from task analysis.

Answer:

The correct answers are items 2 and 3. The needs assessment will provide the gaps in results that are to be closed, and the quasi-needs assessment for processes will identify the gaps in procedures or methods-means that will be most successful in closing the performance gaps.

8. Evaluation and Needs Assessment

After implementing the selected interventions, formative evaluation should take place. Figure 4 shows evaluation activities as broken arrows. Evaluation starts by going

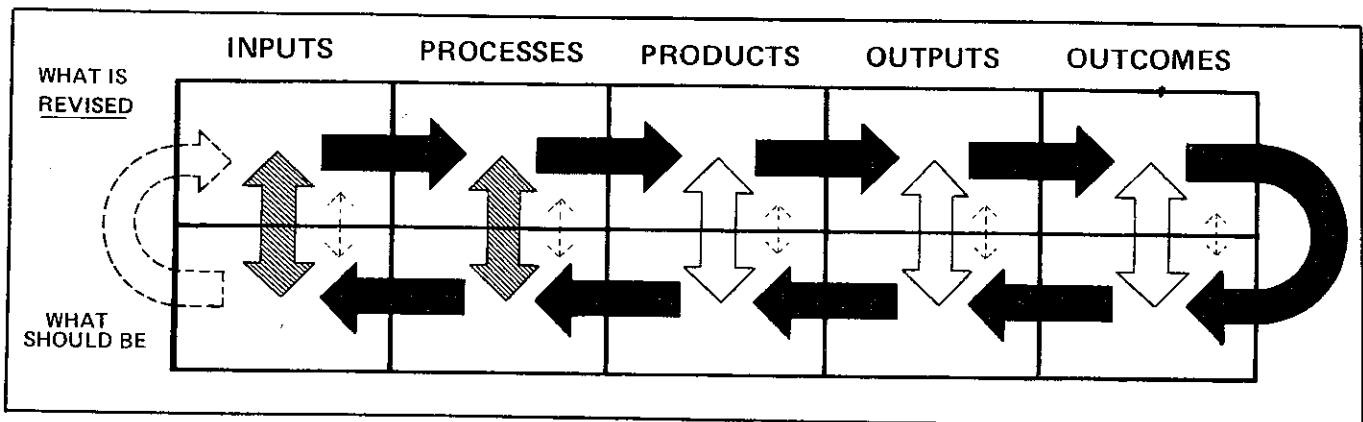


Figure 4. Evaluation (shown as broken lines) is the determination of, "Have we accomplished that which we set out to accomplish?" (Note that the "what is" row is re-named "What is - revised" to show the current results based upon the previous efforts.) (After Kaufman and Thomas, 1980)

through the "what is—revised" elements and relating each to the "what should be" requirements to determine the extent to which the gaps actually have been closed and continuation requirements met. Notice that because implementation already has taken place, there is a "what is—revised"—resulting from the actions that have now been completed. This evaluation phase determines the extent to which one has achieved that which has been planned. Summative evaluation takes place when one compares expected results with actual results—when one examines products, and, more appropriately, outputs and outcomes.

Evaluation examines gaps between what was intended and what actually was accomplished, but needs assessment examines the gaps between what should be accomplished and that which was actually accomplished.

Evaluation looks at an existing context, but needs assessment may identify new goals or contexts—what should be.

Finally, one should use this evaluation base for continuing the needs assessment by a shift to the new "what is" for each of the elements, which has been newly created by implementation of that which was planned. Then, in the same manner, as shown in Figure 2, repeat the process based upon the changes wrought through previous efforts. Needs assessment, thus, is a continuing process and may be linked with planning, development, and evaluation.

PRACTICE EXERCISE 8

Which, if any, of these statements are true?

1. Needs assessment is a variety or type of evaluation.
2. Evaluation is a variety or type of needs assessment.
3. Evaluation looks at gaps between existing goals and objectives and actual accomplishments. Needs assessment examines gaps between actual accomplishments and what should be accomplished.

Answer:

Item 3 is correct.

9. The Steps for Conducting a Needs Assessment

The steps involved in conducting an external needs assessment are summarized in the checklist below.

1. Obtain commitment of the initial planning group to use an external referent for planning, not just the existing goals and objectives of the agency, department, or section.
2. Identify the various partnership groups and their constituencies including representatives (learners, educators, and society/community for education).
3. Obtain current input, process, product, output, and outcome data of the organization.

4. Obtain data on future outcome requirements and subsequent output, product, process, and input requirements of the organization.

5. Working with the partners, determine the gaps in the organizational elements and place gaps to be resolved in priority order based, perhaps, on the "cost" to close the gap and the "cost" to ignore the gap.

10. Implementation and Evaluation Checklist

1. List change and maintenance requirements.
2. List and select possible interventions (methods and means) that might serve to close identified needs (gaps).
3. Determine the extent to which you have accomplished what you set out to accomplish.
4. Be prepared to consider new needs that might arise during the course of planning.
5. Repeat, at least periodically, the needs assessment procedure.

TEST YOURSELF

Part I

Test yourself on the main concepts that have been covered. (The number of each question is the same as the section that presents the concepts)

The correct answers to these 10 questions are presented at the end of this module.

1. Define the concept of *need* and explain the pitfalls encountered when using more than one definition.
2. Define what is meant by external and internal needs assessment.
3. Define the five basic parts of the Organizational Elements Model and relate each one to the others.
4. (a) Which organizational elements relate to the external needs assessment? Internal needs assessments? Quasi-needs?
(b) Explain why all gaps between each of the organizational elements are not necessarily *needs*.
(c) What is a "wish list"?
5. Explain the importance of partnership planning in needs assessment.
6. Define what is meant by change requirements and maintenance requirements.

7. Define the role of needs assessment in determining methods and means.
8. Explain the relationship between evaluation and needs assessment.
9. What are the steps in conducting a needs assessment?
10. What are the steps required to implement and evaluate after completing a needs assessment?

PART II

The concepts of needs assessment are useful in education, industry, and the military—anywhere interventions are designed and used to improve results. The challenge is to select the appropriate method to correctly analyze and diagnose organizational problems. A classification table has been prepared to assist you in making such decisions. Review the type of problem and the recommended actions shown in this table. Then proceed to analyze the hypothetical scenario that appears below. After you finish, compare your responses with those at the end of the module.

Classification Table: Types of Problems and Recommended Actions	
TYPE OF PROBLEM	RECOMMENDED ACTION
A. Adequacy of raw materials, personnel, ingredients, facilities	Determine input gaps
B. Effectiveness and efficiency of organizational processes	Determine process gaps
C. Quality of products/subcomponents produced	Determine product gaps
D. Quality or quantity of organizational "deliverables" to society	Determine output gaps
E. Organizational or individual self-sufficiency and impact on society	Determine gaps in societal outcomes

The Scenario

The Great Atlantic Fuel Company has been having problems with fuel shipments that have been found to be contaminated. In analyzing the problem the

company found that loaders often leave tank valves open and unattended after filling shipping tanks. The contamination problem was first noted when a jet plane crashed into a tenement area, narrowly missing a housing development but destroying a local job placement center. Fortunately, no one was killed on the ground; but low-income people in the neighborhood were slower in finding jobs after the crash and resulting devastation.

Examples from this scenario have been selected and listed in the accompanying problem table. Using information given in the classification table, state the actions that should be taken to assess needs in relation to the specific problem data. For example: To determine the impact of the property destroyed by the plane crash, would you implement an external needs assessment, an output-related needs assessment, or a product-type needs assessment?

Problem Table	
Data regarding the problem	Recommended action (type of gap analysis)
1. Impact on inhabitants of property destroyed by plane crash	1.
2. Contaminated fuel shipments	2.
3. Workers responsible for loading tankers	3.
4. Filling fuel containers	4.
5. Decreased rate of job placement	5.

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ANSWERS TO "TEST YOURSELF"

Part I

1. The definition of *need* as a gap between "what is" and "what should be" in terms of results is a more useful definition than those that mention solutions or processes in their need statements. Using *need* as a verb may foreclose the possibility of finding new or creative ways of closing the gap or from dealing with the actual, more basic problem.

2. An external needs assessment attempts to identify the results necessary for individual self-sufficiency in society—currently and in the future. Once self-sufficiency criteria are set, an organization can use an internal needs assessment method to identify goals and objectives for accomplishing required societal results.

3. *Inputs*—raw materials, ingredients, and starting conditions used by an organization to achieve its missions.

Processes—methods and means by which ingredients and materials are managed, modified, and put into action to create useful results.

Products—en-route results produced by an organization.

Outputs—that which an organization delivers to society.

Outcomes—impact of outputs in society.

Inputs and processes are the organizational efforts that lead to organizational results in the form of products and outputs. All four of these "internal" elements impact on society by producing results that are termed outcomes.

4. (a) Inputs and processes relate to quasi-needs. Products and outputs relate to internal needs assessment. Outcomes relate to external needs assessment.

(b) *Need* is defined as a gap between "what is" and "what should be" in terms of results. Results include products, outputs, and outcomes. Gaps in inputs and processes, therefore, should not be called needs.

(c) Gaps in processes are frequently just "wish lists"; they assume solutions rather than consider all possible interventions based on a careful assessment of gaps in results (i.e., needs assessment).

5. By involving those people who will be, or could be, affected by the outputs of the system, there will be a higher probability of acceptance of the results and a higher probability that all important aspects of the problem(s) will be identified.

6. Change and maintenance requirements are lists of those things to be changed or continued within each organizational element to ensure that gaps between the "what is" and "what should be" will be closed and that those things that are working well and should be maintained will be.

7. *Methods-means* are those interventions that might serve to close identified gaps or maintain those results that have been selected for continuation.

8. Evaluation is the determination of "have we accomplished what we set out to accomplish?" Needs assessment in its most basic form determines gaps between "what we accomplished" and what we *should* accomplish. We compare "what is" (observed results) with "what should be" (standards) and then make judgments based on the importance and size of the discrepancy noted. These judgments provide a basis for selecting gaps to be removed.

9. See checklist in section 9.

10. See checklist in section 10.

PART II

1. Impact on inhabitants of property destroyed by plane crash—conduct external needs assessment to determine the impact of delivering contaminated fuel to society.

2. Contaminated fuel shipments—conduct internal needs assessment focusing upon outputs to determine if organizational results are aligned with societal results.

3. Workers responsible for loading tankers—identify input and process gaps to determine possible problems in quality or quantity of workers and loading techniques at the Great Atlantic Fuel Company.

4. Filling fuel containers—identify process gaps to determine possible problems in method used to fill fuel containers.

5. Decreased rate of job placement—conduct external needs assessment to determine the impact of plane crash, and what caused it, on the self-sufficiency of people in the areas surrounding the plane crash site.