

An Update on Relating Needs Assessment and Needs Analysis

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In 1989 Kaufman and Valentine introduced the Organizational Elements Model (OEM) for relating needs assessments and needs analysis. It is still appropriate in current economic markets and society. The article, "Relating Needs Assessment and Needs Analysis," in the November/December 1995 issue of *Performance and Instruction*, provided a beginning. Since its introduction, the model has developed and been applied in organizations around the world.

Perhaps the changes we have seen in the world around us are more challenging than the evolution of the model itself. Each day more public and private organizations realize that the traditional paradigms for conducting business are failing them (Barker, 1992; Block, 1993; Conner, 1993; Drucker, 1993; Kaufman, 1993; Popcorn, 1991; and Toffler, 1995). Having to justify activities and costs on the basis of consequences is becoming a common requirement for many organizations. In this article we will update previous work so that the concepts and tools are relevant today.

Purpose- and Results-Based Objectives

Identifying the destination of any organization is vital to its success and has long been accepted as a critical element in performance improvement and management. The concept of measurability (or an array of alternative labels such as objectives, expectations, performance specifications, performance criteria, and

performance indicators) has been added to this critical element so that organizations will not only realize where they are headed but will also know when they get there. Such specificity allows for the assessment of the validity and usefulness of a defined purpose.

Kaufman and Valentine state that in the practical needs assessment and needs analysis emphasis is placed clearly on results or accomplishments and not on means or resources. This should not imply that the means or resources used to obtain the desired results are not critical, but that their characteristics are different than those of the results themselves and should be analyzed in a different manner. The basis for making decisions should be directly related to an ideal vision and derived mission, both of which should state desired results. The alternative methods or means for achieving these results should then be analyzed according to the following:

- their ability to lead the organization toward the goals and objectives stated in the mission and ideal vision,
- their ability to meet the solution requirements, and
- the cost of achieving the desired results through this intervention compared to the cost of ignoring the problem.

For example, a government has decided that the level of recidivism in youth penal institutions must be reduced. The gap between the current level of recidivism and the desired level is a need, and the resulting reduction or elimination is the

MEANS OR END	ELEMENT	RESULTS LEVEL	EXAMPLE
Ends	Outcomes	Mega Level	no poverty; no crime; satisfied customers; no loss of life nor elimination or reduction of levels of self-sufficiency or quality of life.
	Outputs	Macro Level	delivered automobiles; discharged patients; delivered computer system.
	Products	Micro Level	reports completed; personnel trained; services delivered; employees evaluated
Means	Processes		methods; means; procedures; management philosophies; how-to-do-its; job aid
	Inputs		ingredients; existing physical, capital, and human resources; existing goals, policies, laws and values.

Figure 1.

valid result to be obtained. The means selected for achieving these results are central. One tactic for meeting the need would be to teach juvenile inmates “not to get caught,” an approach not responsive to the reasons behind the recidivism. This is just one argument for why objectives should require more than just measurability; the objective must have a link to organizations and to societal objectives.

Where Do the Objectives Come From?

Agreement tends to get murky as we move from measuring objectives to identifying and selecting needs. The emphasis on results often seems to slip away. The following two conventional definitions of the word “need” come into play:

- to desire or want something considered necessary, or
- a gap between current and desired results.

How “need” is defined is pivotal in determining how objectives are selected. If it is defined as a verb (to “need” a process, method, result, technique, resource, or solution), you move directly to implementation. If you are not concerned with results, then any solution will work! If “need” is defined as a noun (a gap in results, accomplishments, performance, achievement, or consequences), you move to a point where you may analyze the need to find causes and then identify possible methods or means to close the gap.

People usually use the first definition of the word “need,” and so we commonly hear comments like: “we need more training,” “we need more money,” or “these young offenders need more skills.” These are all possible solutions in search of a problem that a performance technologist may or may not be qualified to fix. If we use the second definition as a standard, we can identify a gap in results and not limit our alternatives for closing

the gap to a predetermined solution. Training and electronic performance support systems (EPSSes) are not the solution to many of the obstacles organizations currently face. Starting our performance improvement cycle by identifying possible methods or means for meeting the “needs” assumes that we know what the problem is and what caused it and that we have the correct measurable objectives to achieve organizational success.

Needs Assessment and Needs Analysis

The OEM (Kaufman, 1993, 1996) is one useful way to keep track of and differentiate between ends and means. The model identifies three levels of results and two levels of means that are common among organizations. The placement of an element into the levels of the OEM is not to make judgment, but rather to understand and make accommodations for each level’s individual characteristics. Figure 1

shows the OEM and some examples of possible elements at each level.

For organizations that want to justifiably and effectively manage performance and improve their internal and external pay-offs for doing so, the OEM may be seen as a two-tiered array for what is and what should be, as shown in Figure 2.

When charting your organizational efforts, results, and consequences within the OEM, it is useful to analyze each block for its relationship with all connecting blocks. The OEM is not only useful for identifying gaps between what is and what should be at all five levels, but it can also highlight the required links between the five levels (i.e. whether your outputs are directly linked to your desired outcomes). Note that in the model in Figure 3, arrows connect both what is and what should be and also the five levels of organizational planning.

When defining a need as a gap, it may be noted that there are three types of needs: gaps in results for outcomes, outputs, and products. Gaps in methods (processes) and resources (inputs) are called quasi-needs and are best considered in terms of closing the gaps in results. This is illustrated in Figure 4.

The OEM format and the acceptance of these definitions allows us to relate needs assessment and needs analysis. Needs assessment identifies the gaps in results and thus provides the basis for deriving useful and justifiable objectives. Needs analysis identifies what causes the needs and then identifies the solution requirements. To analyze anything, including needs, you must have selected the need in the first place. Otherwise how would you know what to analyze?

After you find the causes of a need and perform subsequent analysis (such as a methods or means analysis or a cost-consequences analysis), you can then identify and select the appropriate ways and means for meeting those needs. Using such a identification and selection process is both practical and pragmatic. Selection is based on the cost as compared to the

	MEGA (Outcomes)	MACRO (Outputs)	MICRO (Products)	PROCESSES	INPUTS
WHAT SHOULD BE					
WHAT IS					

Figure 2.

	MEGA (Outcomes)	MACRO (Outputs)	MICRO (Products)	PROCESSES	INPUTS
WHAT SHOULD BE	↕	↕	↕	↕	↕
WHAT IS					

	MEGA (Outcomes)	MACRO (Outputs)	MICRO (Products)	PROCESSES	INPUTS
WHAT SHOULD BE	↔				
WHAT IS					

Figure 3.

payoffs. Wouldn't it be nice to be able to justify all your expenditures the next time management wants to cut your budget?

Costs-Consequences Analysis

Costs-consequences analysis (CCA) provides a rough estimate of what one puts into a system and what one gets out of it. Decisionmakers can use it when there is no need, time, or resources to completely determine all the variables that actually go into a return-on-investment analysis. CCA defines the minimal data required

to provide useful indicators of the return on investment. We can use the OEM as the framework for calibrating and relating all that an organization uses, does, produces, and delivers and the societal payoffs (Kaufman, 1996; Kaufman and Watkins, 1996). The relevant definitions are as follows:

- Cost-utility analysis: Relating costs to outcomes.
- Cost-benefit analysis: Relating costs to outputs.

	MEGA (Outcomes)	MACRO (Outputs)	MICRO (Products)	PROCESSES	INPUTS
WHAT SHOULD BE					
WHAT IS		Needs		Quasi-needs	

Figure 4.

- Cost-effectiveness analysis: Relating costs to the achievement of products.
- Cost-efficiency analysis: a comparison of the costs to what is (or will be) done and provided (means, methods, processes, procedures, interventions, activities, projects, programs; relationship of inputs to process.
- Auditing (or Accounting): a comparison of inputs to inputs.

In most organizational activities, the detailed data do not exist or are not available for realistically computing a return on investment. In such cases a CCA may be employed when it is important to have criteria for deciding whether an intervention is worth funding.

Among the questions a CCA should answer for a possible training intervention are:

- Who are the participants in the interventions? Who should be?
- Who is being turned down for the interventions? Who should be?
- What interventions are the participants getting? What alternative interventions might they get?
- What are the results of the intervention or interventions (at the mega, macro, and micro levels)?
- What are the completion, drop-out, and continuation rates for the intervention participants?
- What are the performance levels of finishers? The nonfinishers?
- What is the societal condition—level of self-sufficiency, self-reliance, and quality of life—of the finishers? The nonfinishers? What are the levels of

finishers' and nonfinishers' self-sufficiency and self-reliance (in terms, at least of $C \approx P$, where C is consumption and P is production)?

- What interventions and what patterns of interventions are making the best contributions in terms of societal payoffs and consequences? What is working and what is not? What are the valid criteria for these?
- What are the societal payoffs and consequences for the various interventions for the various kinds of participants (in terms, at least of $C \approx P$, where C is consumption and P is production)?
- What are the costs for the payoffs and non-payoffs, and is it worth the expenditures as compared to other interventions that might be made?
- What results could be obtained by using the money another way?

What is Training Needs Assessment?

Although the term "training needs assessment" is popular in the field, it seems to be an oxymoron. If you know that training is the solution, why do a needs assessment? It is only if you use "need" as a means-oriented verb that you are able to do a training needs assessment. A more accurate label for what is called a "training needs assessment" is "training requirements analysis." A training requirements analysis can be a useful and important approach to designing training that will respond to your needs after you have defined them.

A needs assessment identifies gaps in results, places them in order of priority,

and selects the most important for closure or reduction. A needs analysis identifies the causes of the gaps in results so that appropriate methods, means, tactics, tools, and approaches may be rationally identified and then selected for meeting the needs. In today's paradigm of business, results for what an organization does, produces, and delivers must be mutually supported and linked to useful resources and procedures.

Means and ends—keeping them separated yet related will pay dividends in identifying and delivering useful results. Neither is more important than the other and each has individual characteristics and strong interdependence. Use both of them to their potential to improve the chances of success. 🍀

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